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

PAMELIA DWIGHT, an individual; **BENJAMIN DOTSON**, an individual; MARION WARREN, an individual; AMANDA HOLLOWELL, an individual; DESTINEE HATCHER, an individual; and WILBERT MAYNOR, an individual, CTDOCKET.COM

Civil Action No. 1:18-cv-2869-RWS

Plaintiffs,

v.

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

Defendant.

PLAINTIFFS' MOTION FOR PARTIAL SUMMARY JUDGMENT

Plaintiffs PAMELA DWIGHT, BENJAMIN DOTSON, MARION

WARREN, AMANDA HOLLOWELL, DESTINEE HATCHER, and WILBERT

MAYNOR, by and through undersigned counsel and pursuant to Rule 56 of the

Federal Rules of Civil Procedure and Rules 7.1 and 56.1 of the Local rules for the

United States District Court, Northern District of Georgia, hereby move for an

order granting partial summary judgment in Plaintiffs' favor.

The basis for this motion is fully set forth in the Memorandum accompanying this motion. Plaintiffs further rely upon the pleadings, discovery materials, and other documents filed to date, as well as the May 1, 2019, Declaration of Abha Khanna and supporting exhibits, filed concurrently herewith.

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Dated: May 1, 2019

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on May 1, 2019, I filed a copy of the foregoing Motion

for Partial Summary Judgment with the Clerk of the Court using the CM/ECF

system, which will send notification of such filing to all counsel of record.

/s/ Uzoma N. Nkwonta

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MEMORANDUM IN SUPPORT OF PLAINTIFFS' MOTION FOR PARTIAL SUMMARY JUDGMENT

INTRODUCTION I.

This lawsuit challenges the Georgia General Assembly's failure to draw a congressional district in central and southeast Georgia-where the 12th Congressional District (CD 12) is currently located—that would provide African Americans in that region an equal opportunity to participate in the political process

and elect their preferred candidates.¹ Unrefuted expert analysis has confirmed that African Americans were (and still are) sufficiently numerous and geographically compact to form a majority in a congressional district located in central and southeast Georgia, yet the General Assembly's 2011 congressional districting plan ("2011 plan" or "current plan") divided and submerged the African American population into several districts in which they comprise a small minority and are unable to elect candidates of their choice. SUMF ¶¶ 9-11, 31-55 (Declaration of William S. Cooper ¶ 26, Khanna Decl., Ex. 1, (hereinafter "Cooper Report")).

To give one example, the 2011 plan excised several heavily African-American populated counties from CD 12, including Hancock (74.4% black voting age population ("BVAP")), Warren (62.1% BVAP), Taliaferro (60.8% BVAP), Jefferson (55% BVAP), Washington (53.4% BVAP), and Chatham (51% BVAP), and in exchange imported majority-white counties like Jeff Davis (15.2% BVAP), Columbia (16% BVAP), Appling (19.1% BVAP), and Coffee (27.4% BVAP).

¹ Plaintiffs' use of the phrase "central and southeast Georgia" is a shorthand reference to the geographic region defined in the expert report of William Cooper as the "focus area." This region includes the counties in CD 12 and the immediately surrounding districts (CDs 1, 8, and 10), with the exception of counties within the Atlanta and Athens metropolitan statistical areas. The 71 counties that comprise this geographic region (the focus area) are listed in Mr. Cooper's report. SUMF ¶ 25 (Cooper Report 7 n.4). For the purpose of this Memorandum, the use of the phrase "central and southeast Georgia," or reference to regions "in and around CD 12," shall refer to the "focus area."

Indeed, none of the seven counties that were added to CD 12 had an African-American voting age population above 42 percent—a feat that required almost surgical precision in a region replete with majority-African-American communities. SUMF ¶¶ 9-11 (Cooper Report ¶¶ 60-61, fig. 13).

Given the highly polarized voting patterns among African-American and white voters in the region, the political consequences of CD 12's transformation were predictable: for instance, the 2018 general election for the CD 12 congressional seat saw African-American-preferred candidate Francys Johnson defeated by nearly 20 percentage points. And it appears unlikely that any African-American-preferred candidate will be elected in CD 12 (or in any of the surrounding districts) under the current configuration, which has effectively silenced a sizeable minority voting bloc.

Section 2 of the Voting Rights Act protects minority groups from such practices or procedures (including redistricting plans) that dilute the group's voting strength and leave them with less opportunity to elect their preferred candidates. In reviewing a Section 2 claim, courts generally engage in a multi-step inquiry into the context in which the challenged practice operates to determine whether the minority group has indeed been denied an equal opportunity to participate in the political process. Plaintiffs' Motion for Summary Judgment ("Motion") focuses on the first phase of this analysis, which examines three threshold elements: (1) whether the minority group is "sufficiently large and geographically compact to constitute a majority in a single-member district," (2) whether the minority group is "politically cohesive;" and (3) whether the majority votes "as a bloc to enable it . . . usually to defeat the minority's preferred candidate." These requirements are known as the "*Gingles* preconditions." *Thornburg v. Gingles*, 478 U.S. 30, 50-51 (1986).

Here, there is no genuine dispute Plaintiffs have satisfied the Gingles preconditions. First, Plaintiffs' expert demographer, William Cooper, has drawn three illustrative plans that include a district (proposed CD 12) within the central and southeast regions of Georgia in which the geographically-compact African American population comprises a majority of the voting age population. SUMF ¶¶ 21-55 (Cooper Report ¶¶ 63-79; Second Declaration of William S. Cooper ¶¶ 34-47, Khanna Decl., Ex. 3 (hereinafter "Second Cooper Report")). Second, as Plaintiffs' expert Dr. Maxwell Palmer has shown, and Defendant's expert Dr. John Alford agrees, African Americans in and around CD 12 vote cohesively in favor of their preferred candidates. SUMF ¶ 63 (Expert Report of Maxwell Palmer at 6-8, figs. 2-6, tbls. 1-5, Khanna Decl., Ex. 5 ("Palmer Report"); Deposition of John Alford at 86:5-19, Khanna Decl., Ex. 8 ("Alford Dep.")). And, third, as both experts also agree, the white majority votes as a bloc usually to defeat the African-Americanpreferred candidate. SUMF ¶ 64 (Palmer Report at 6-8; Alford Dep. at 206:17-22).

Plaintiffs therefore respectfully ask the Court to grant summary judgment in their favor and find that Plaintiffs have established the three *Gingles* preconditions.

II. ARGUMENT

A. Standard of Review

"The principal function of the motion for summary judgment is to show that one or more of the essential elements of a claim or defense is not in doubt and that, as a result, judgment can be rendered as a matter of law." *Tippens v. Celotex Corp.*, 805 F.2d 949, 952 (11th Cir. 1986). When there is no genuine dispute as to any material fact, the moving party is entitled to judgment as a matter of law on all or any part of a claim. Fed. R. Civ. P. 56(a). Once the moving party has met its initial burden of proving that no genuine issue of material fact exists, the burden shifts to the opposing party to establish otherwise. Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp., 475 U.S. 574, 585-586 (1986). To avoid summary judgment, the opposing party must go beyond the pleadings to designate specific facts establishing a genuine issue for trial. Celotex Corp. v. Catrett, 477 U.S. 317, 323 (1986). In so doing, the opposing party "must do more than simply show that there is some metaphysical doubt as to the material facts." Matsushita, 475 U.S. at 586. Rather, it "must come forward with significant, probative evidence demonstrating the

existence of a triable issue of fact." Irby v. Bittick, 44 F.3d 949, 953 (11th Cir. 1995).

B. Legal Standard for Establishing a Violation of Section 2 of the Voting Rights Act

1. Section 2 Vote Dilution

The Voting Rights Act of 1965 is one of this nation's seminal pieces of civil rights legislation. As the Supreme Court has recognized: "Passage of the Voting Rights Act of 1965 was an important step in the struggle to end discriminatory treatment of minorities who seek to exercise one of the most fundamental rights of our citizens: the right to vote." Bartlett v. Strickland, 556 U.S. 1, 10 (2009). Pursuant to this goal, Section 2 of the Voting Rights Act prohibits minority vote dilution, providing that no "standard, practice, or procedure shall be imposed or applied by any State or political subdivision in a manner which results in a denial or abridgement of the right of any citizen of the United States to vote on account of race or color." 52 U.S.C. § 10301(a). The question posed by a Section 2 claim is "whether, as a result of the challenged practice or structure plaintiffs do not have an equal opportunity to participate in the political processes and to elect candidates of their choice." Gingles, 478 U.S. at 44 (internal quotation marks and citation omitted).

In the context of a vote dilution claim under Section 2 regarding single-

member districts, the Supreme Court has explained:

[T]he usual device for diluting minority voting power is the manipulation of district lines. A politically cohesive minority group that is large enough to constitute the majority in a single-member district has a good chance of electing its candidate of choice, if the group is placed in a district where it constitutes a majority. **Dividing the minority group among various districts so that it is a majority in none may prevent the group from electing its candidate of choice**: If the majority in each district votes as a bloc against the minority candidate, the fragmented minority group will be unable to muster sufficient votes in any district to carry its candidate to victory.

Voinovich v. Quilter, 507 U.S. 146, 153 (1993) (emphasis added). In other words, "'[d]ilution of racial minority group voting strength may be caused' either 'by the dispersal of blacks into districts in which they constitute an ineffective minority of voters or from the concentration of blacks into districts where they constitute an excessive majority.'" *Id.* (quoting *Gingles*, 478 U.S. at 46, n.11)

Finally, it is important to note that Section 2 plaintiffs do *not* need to prove that a jurisdiction specifically designed its election system to discriminate against the minority population—only that the voting system challenged has a discriminatory effect. *Gingles*, 478 U.S. at 35. "*Gingles* made clear that the 1982 amendment to section 2 obviated the need for plaintiffs to prove that the contested electoral mechanism was adopted or maintained with the intent to discriminate against minority voters." *Solomon v. Liberty Cty., Fla.*, 899 F.2d 1012, 1016 (11th Cir. 1990). Instead, "[t]he only question [] is whether as a result of the challenged practice or structure plaintiffs do not have an equal opportunity to participate in the political processes and to elect candidates of their choice." *Id.* (internal quotations omitted).

2. The Gingles Preconditions

In *Gingles*, the Supreme Court set forth the well-settled framework governing Section 2 vote dilution claims, which requires a plaintiff to establish three "necessary preconditions" to make a *prima facie* case for a Section 2 violation: (1) the minority group is "sufficiently large and geographically compact to constitute a majority in a single-member district," (2) the minority group is "politically cohesive," and (3) the majority votes "sufficiently as a bloc to enable it . . . usually to defeat the minority's preferred candidate." 478 U.S. at 50-51. If and once a plaintiff establishes the *Gingles* preconditions, the Court proceeds to examine the totality of the circumstances in order to determine whether African Americans have been denied equal participation in the political process and the ability to elect their preferred candidates. *Abrams v. Johnson*, 521 U.S. 74, 91 (1997).² "[I]t will be only the very unusual case in which the plaintiffs can establish the existence of the three *Gingles* factors but still have failed to establish a violation of [Section] 2." *Wright v. Sumter Cty. Bd. of Elections & Registration*, 301 F. Supp. 3d 1297, 1323 (M.D. Ga. 2018) (quoting *NAACP v. City of Niagara Falls*, *N.Y.*, 65 F.3d 1002, 1020 n.21 (2d Cir. 1995)).

The focus of Plaintiffs' Motion is the *Gingles* preconditions, which pose three straightforward questions to the court. First, is it possible to draw a compact majority-minority district in central and southeast Georgia? Second, do African Americans in central and southeast Georgia vote cohesively such that they generally support the same candidates? And, finally, does the white-majority in central and southeast Georgia vote as a bloc usually to defeat the African-American-preferred candidate? As demonstrated below, Plaintiffs have presented unrefuted evidence that answers all three questions in the affirmative.

² In particular, the Court will consider, inter alia, the factors set forth in the Senate Judiciary Committee Report accompanying the 1982 amendments to Section 2, the so-called "Senate Factors." *Gingles*, 478 U.S. at 44-45.

C. The African-American Population in Central and Southeast Georgia is Sufficiently Large and Geographically Compact to Constitute a Majority in a Congressional District (*Gingles* 1)

Plaintiffs' expert demographer, William Cooper, has submitted three illustrative plans, each of which includes a proposed majority-African-American district in central and southeast Georgia that complies with traditional redistricting principles. SUMF ¶ 21-55 (Cooper Report ¶ 63-79; Second Cooper Report ¶ 34-47); see also United States v. Vill. of Port Chester, 764 F. Supp. 2d 411, 420 (S.D.N.Y. 2010) ("To demonstrate the existence of the first Gingles precondition . . . Plaintiffs must be able to draw illustrative . . . districts following traditional districting principles to show that the [African American] population is sufficiently large and compact so as to constitute a majority"). These illustrative plans, therefore, establish that Plaintiffs have satisfied the requirements of the first Gingles precondition.

1. African Americans in Central and Southeast Georgia are Sufficiently Numerous to Constitute a Majority in a Congressional District

The first part of this inquiry presents a straightforward mathematical question which elicits a simple "yes" or "no" response: whether African Americans "make up more than 50 percent of the voting-age population" in Plaintiffs' proposed CD 12. *Bartlett*, 556 U.S. at 18. This "objective, numerical test" provides "straightforward guidance to courts and to those officials charged with drawing

district lines to comply with Section 2." *Id.*; *see Solomon*, 899 F.2d at 1018 (a 51% BVAP was sufficient to satisfy *Gingles* precondition 1); *Ga. State Conf. of NAACP v. Fayette Cnty. Bd. of Comm'rs*, 950 F. Supp. 2d 1294, 1303 (N.D. Ga. 2013) (finding 50.22 percent BVAP district, exceeding the 50 percent threshold by approximately 35 voters, sufficient to satisfy numerosity requirement), *aff'd in part, vacated in part, rev'd in part on other grounds*, 775 F.3d 1336 (11th Cir. 2015).

Cooper's illustrative plans easily satisfy this requirement. Using data from the 2010 Census, Cooper calculated the black voting age population in the proposed CD 12 in all three of his illustrative plans and reported the results:

PLAN	BVAP
District 12, Current Plan	33.30%
District 12, Illustrative Plan 1	50.32%
District 12, Illustrative Plan 2	50.26%
District 12, Mustrative Plan 3	50.20%

SUMF ¶¶ 31, 40, 49 (Cooper Report ¶¶ 67, 72; Second Cooper Report ¶ 35). Plaintiffs' expert, Gina Wright's report does not dispute Cooper's calculation of the black voting age population in the proposed districts. SUMF ¶ 22 (Deposition of Gina Wright at 119:9-14, Khanna Decl., Ex. 4 ("Wright Dep.")). Nor is there any question that this metric is the appropriate one. *See Johnson v. Hamrick*, 155 F. Supp. 2d 1355, 1367 (N.D. Ga. 2001), *aff'd*, 296 F.3d 1065 (11th Cir. 2002) (noting that BVAP is "the population generally accepted as legally relevant"). Therefore, there is no genuine dispute of material fact that under each of the illustrative plans, the BVAP of proposed CD 12 exceeds the simple majority required under the first *Gingles* precondition.

2. Plaintiffs' Illustrative Plans are Compact and Follow Traditional Redistricting Principles

The second part of this inquiry requires the Court to determine whether a majority-minority district can be drawn while complying with traditional redistricting principles. See Georgia State Conference of NAACP v. Favette Cty. Bd. of Comm'rs, 952 F. Supp. 2d 1360, 1364 (N.D. Ga. 2013) ("[A] plan is compact where it is designed 'consistent with traditional districting principles.'") (quoting Davis v. Chiles, 139 F.3d 1414, 1425 (11th Cir. 1998)). Although the compactness requirement under this precondition refers to "the compactness of the minority population, not . . . the contested district," courts have acknowledged that "no precise rule has emerged governing § 2 compactness." League of United Latin Am. Citizens v. Perry, 548 U.S. 399, 433 (2006) ("LULAC"). As such, the court may consider traditional redistricting principles. See id. And as part of this inquiry, courts in this circuit have found that a proposed district's compliance with the numerosity requirement and with traditional redistricting principles—like compactness of the district boundaries, contiguity, achieving equally populated districts, maintaining communities of interest and traditional boundaries, and avoiding the pairing of incumbents—is sufficient to establish the first *Gingles* precondition. *See Askew v. City of Rome*, 127 F.3d 1355, 1375-76 (11th Cir. 1997); *Ga. State Conf. of NAACP*, 952 F. Supp. 2d at 1365.

a) Compactness

In each of Cooper's illustrative plans, the African American population in the proposed CD 12 is demonstrably geographically compact. The African-American communities within the proposed CD 12 are located generally in central and southeast Georgia—the same region where the current CD 12 sits. SUMF ¶ 28 (Wright Dep. at 244:8-14 ("[Cooper's proposed CD] 12 is in the same east central Georgia [location] that the current 12 is.")). To convert CD 12 into a majority-African-American district, Cooper's illustrative plans reunite African American counties that were originally in CD 12 (under the 2005 plan)—but had since been disbanded and submerged into neighboring majority-white districts under the current plan:

COUNTY	2005 PLAN	CURRENT PLAN	ILLUSTRATIVE PLANS	BVAP
Hancock	CD 12	CD 10	CD 12	74.43%
Warren	CD 12	CD 10	CD 12	62.12%
Taliaferro	CD 12	CD 10	CD 12	60.75%
Jefferson	CD 12	CD 10	CD 12	54.95%
Washington	CD 12	CD 10	CD 12	53.44%
Chatham (partial)	CD 12	CD 1	CD 12	51.04%

SUMF ¶¶ 21-55 (Cooper Report ¶¶ 63-79; Second Cooper Report ¶¶ 34-47). Cooper's illustrative plans also include portions of Bibb County that are currently assigned to CD 8 and CD 2 but are located nonetheless in central Georgia as well. SUMF ¶ 26 (Cooper Report ¶ 4, figs. 14, 16; Second Cooper Report ¶ 35, fig. 2). In fact, portions of Bibb County, and all of Hancock and Washington counties, are located in the same State Senate district. SUMF ¶ 27 (Cooper Report ¶ 14, Ex. E; Second Cooper Report, fig. 2).

Objective measurements of the proposed districts' compactness using the Reock and Polsby-Popper tests confirm that proposed CD 12 is reasonably compact under each of Plaintiffs' illustrative plans. A Reock test "computes the ratio of the area of the district to the area of the minimum enclosing circle for the district." SUMF ¶ 12 (Cooper Report ¶ 75, n.16). A Polsby-Popper test "computes the ratio of the ratio of the district area to the area of a circle with the same perimeter." *Id*. The scores for

both tests range from 0 to 1, with 1 being the most compact. SUMF ¶ 14 (Cooper Report ¶ 75, n.16).

Both Cooper and Defendant's expert, Gina Wright, calculated proposed CD 12's Reock and Polsby-Popper scores for Illustrative Plans 1 and 2, and reached the same result:³

	Illustrative Plan 1	Illustrative Plan 2	Illustrative Plan 3	Current Plan
Reock (CD 12)	0.35	0.34	0.34	0.41
Polsby-Popper (CD 12)	0.16	0.17	0.17	0.18
Mean Reock (All Districts)	0.42	0.44	0.44	0.45
Mean Polsby (All Districts)	0.24	20 ^{MDE} 0.25	0.25	0.25

SUMF ¶¶ 32-33, 41-42, 50-51) (Cooper Report fig.18; Second Cooper Report ¶¶ 39-40; Expert Report of Gina H. Wright at 17-18, 22-23, Khanna Decl. Ex. 2 ("Wright Report")). Overall, the differences in compactness scores between the current plan and Cooper's illustrative plans are negligible. *See id*. The proposed CD 12 in each plan has Reock scores of .35 (Illustrative Plan 1) and .34 (Illustrative Plans 2 and 3), which, while slightly lower than the current CD 12 (0.41), are still higher than the

³ Wright did not submit Reock or Polsby-Popper scores for Cooper's Illustrative Plan 3, which were included in Cooper's rebuttal report.

current CD 8, and are nearly on par with CD 9. *See id*. Cooper's plans have mean Reock scores of .42 (Plan 1) and .44 (Plans 2 and 3), which is nearly identical to the current plan's mean Reock score of .45. *See id*.

The similarities in compactness hold true under the Polsby-Popper test as well. Cooper's proposed CD 12 has a Polsby-Popper scores of .16 (Plan 1) and .17 (Plans 2 and 3) respectively, which are nearly identical to the current plan's CD 12 Polsby-Popper score of .18. *See id*. Likewise, the mean Polsby-Proper scores of all districts in Cooper's illustrative plans are .24 (Plan 1) and .25 (Plans 2 and 3), which, again, is essentially identical to the current plan's mean score of .25. *See id*. In short, the compactness scores for each illustrative plan, including specifically for proposed CD 12, are well within the norm for Georgia congressional districts. *See id*.

Defendant's expert demographer, Gina Wright, does not contend that the African American population in proposed CD 12 is not compact. SUMF ¶ 30 (Wright Dep. at 134:9-136:12). She suggests only that the proposed districts may be less compact than others. *Id.* But even if true, this does not refute the fact that the African American population in the illustrative plans' proposed CD 12 is sufficiently compact to satisfy the first *Gingles* precondition. Plaintiffs are not required to demonstrate that their proposed majority-minority district is the most compact alternative, or that it is even as compact as the district it seeks to replace. *See Goosby*

v. Town Bd. of Town of Hempstead, N.Y., 180 F.3d 476, 489 (2d Cir. 1999) (finding a district sufficiently geographical compact, despite that, "[u]sing a standard measure of compactness, [the district] is somewhat less compact than the average of the other five districts in the proposed plan"); *cf. Bush v. Vera*, 517 U.S. 952, 978 (1996) ("A § 2 district that is reasonably compact . . . may pass strict scrutiny without having to defeat rival compact districts designed by plaintiffs' experts in endless 'beauty contests."").

Put another way, there is no viable argument under Section 2 that a majorityminority district fails if it is any less compact inan the offending district. Instead, the appropriate inquiry is whether the proposed district, per standard measures of compactness, is reasonably compact. Here, all three illustrative plans clearly meet that standard. *See, e.g., Fayette Cnty.*, 950 F. Supp. 2d at 1308, n.14 (finding proposed single-member district with Reock score of .31 and Polsby-Popper score of .16 reasonably compact); *see also Goosby*, 180 F.3d at 48 (finding district reasonably compact although it was less than the average of other districts in the plan).

b) Other traditional redistricting principles

The illustrative plans further comply with other traditional redistricting principles, such as contiguity, population equality, maintaining communities of

interest, respecting traditional boundaries, and avoiding the pairing of incumbents. *See Ga. State Conf. of NAACP*, 952 F. Supp. 2d. at 1364. In drawing the plans, Cooper focused solely on counties within CD 12 and its surrounding districts, while excluding all counties within the Atlanta and Athens metropolitan statistical areas.⁴ SUMF ¶ 25 (Cooper Report ¶ 7 n.4). He explains that he confined his proposed majority-minority CD 12 to this area in an effort to respect traditional boundaries and maintain communities of interest. *Id.* (Cooper Report ¶ 7 n.4).

The illustrative plans also follow existing political boundaries. *See Wright*, 301 F. Supp. 3d at 1326 (noting absence of dispute that illustrative plan "respect[s] political boundaries" in finding illustrative districts meet *Gingles* 1 compactness requirement). For instance, Illustrative Plans 1 and 3 split 17 counties and Illustrative Plan 2 splits 18 counties—which is less than the 20 counties split under the 2005 Plan and comparable to the 16 splits under the 2011 Plan. SUMF ¶¶ 35 44 (Cooper Report fig.19).

Cooper also demonstrated that his Illustrative Plan 3 displaces fewer CD 12 residents than the current plan. SUMF \P 54 (Second Cooper Report $\P\P$ 44-45). Under the current plan, only 53% of the CD 12 population from the pre-existing 2005 plan

⁴ Cooper's declaration lists the 71 counties that fall within this region, which he refers to collectively as the "Focus Area." SUMF ¶¶ 3, 25 (Cooper Report ¶ 7 n.4).

were retained within the same district. *Id.* Illustrative Plan 3, however, retains approximately 64% of the CD 12 population from the 2005 plan within the district. *Id.* By keeping a larger share of the districts' original residents within CD 12, Cooper's Illustrative Plan further maintains communities of interest and traditional boundaries. Finally, there is no dispute that all of Cooper's illustrative plans are contiguous, achieve population equality, and avoid pairing incumbents in the same district. SUMF ¶¶ 39, 48, 55 (Cooper Report ¶ 63; Second Cooper Rep. ¶ 47).

In sum, Plaintiffs have provided multiple reasonably compact illustrative districts in the focus area which comply with traditional redistricting principles and in which African Americans would comprise a majority of the voting age population. Accordingly, Plaintiffs have satisfied the first *Gingles* precondition.

D. African Americans in Central and Southeast Georgia are Politically Cohesive, and the White Majority Votes as a Bloc Usually to Defeat their Candidates of Choice (*Gingles* 2 and 3)

The second and third *Gingles* preconditions work together to establish whether racial bloc voting in the region results in the defeat of minority-preferred candidate. Plaintiffs can establish minority cohesiveness under the second *Gingles* precondition by showing that "a significant number of minority group members usually vote for the same candidates." *Solomon*, 899 F.2d at 1019; *see also Gingles*, 478 U.S. at 56 ("A showing that a significant number of minority group members

usually vote for the same candidates is one way of proving the political cohesiveness necessary to a vote dilution claim, and, consequently, establishes minority bloc voting within the context of § 2") (internal citations omitted). As to the third *Gingles* precondition, "a white bloc vote that normally will defeat the combined strength of minority support plus white 'crossover' votes rises to the level of legally significant white bloc voting." *Gingles*, 478 U.S. at 56.

No specific threshold percentage is required to demonstrate bloc voting, as "[t]he amount of white bloc voting that can generally 'minimize or cancel' black voters' ability to elect representatives of their choice . . . will vary from district to district." Id. (citation omitted). Courts consistently conduct election-specific analyses and examine what percentage of minority voters and what percentage of white voters supported a particular candidate. See, e.g., id. at 59 (finding second and third Gingles preconditions satisfied where 71% to 92% of African Americans voted for African-American-preferred candidates and 81.7% of white voters voted against those candidates); LULAC, 548 U.S. at 427 (finding "cohesion among the minority group and bloc voting among the majority population" where 92% of minority group voted together for one candidate, while 88% of the non-minority group voted for a different candidate); Solomon, 899 F.2d at 1019, 1021 (finding first and second Gingles preconditions met where African Americans voted together between 75%

and 100% of the time and nearly 80% of whites voted against minority-preferred candidates).

Both Plaintiffs' expert, Dr. Maxwell Palmer, and Defendant's expert, Dr. John Alford, agree that African Americans in and around CD 12 vote cohesively in support of the same candidates, and that the white majority votes as a bloc usually to defeat their candidates of choice. SUMF ¶¶ 63-64 (Palmer Report at 6-8; Alford Dep. at 86:2 - 87:18; 206:17-22). Dr. Palmer examined precinct level election results for congressional (endogenous) and statewide (exogenous) races in general elections occurring between 2012 and 2018,⁵ along with voter registration and voter history files, and applied a statistical procedure, known as ecological inference, to develop estimates of the percentage of each group that voted for each candidate in every election contest. SUMF ¶ 56 (Palmer Report at 5). Dr. Alford has no dispute with Dr. Palmer's methods, nor does he dispute the results of Dr. Palmer's analysis. SUMF ¶ 58 (Alford Dep. at 77:8-22; 86:2 - 87:18).

The results of Dr. Palmer's analysis indisputably demonstrate that African Americans in the focus area vote cohesively in support of the same candidates.

⁵ The analyses examined votes in all counties either partially or entirely within CD 1, CD 8, and CD 12, and several counties within CD 10. This is the same region identified in Plaintiffs' expert William Cooper's report as the "focus area." SUMF ¶ 59 (Palmer Report, tbls. 1-5).

Between 2012 and 2018 African-American voters supported the same candidates in every single election examined at rates ranging from 88 to 98 percent. SUMF ¶ 59 (Palmer Report, tbls. 1-5; Second Palmer Report, tbls. 1-5). It is thus evident that a "significant number of minority group members usually vote for the same candidates," *Gingles*, 478 U.S. at 56, satisfying the second *Gingles* precondition.

The undisputed record also establishes a pattern of white bloc voting. Across those same elections, white voters supported the African-American-preferred candidate in percentages ranging from only 3.6 percent to 27.5 percent. SUMF ¶ 60. (Palmer Report, tbls. 1-5; Second Palmer Report). From 2012 to 2016, the average difference in support for the African American-preferred candidate in the focus area was 87.7 percentage points, with comparable disparities in each of the examined districts. SUMF ¶ 61 (Palmer Report at 7). Dr. Alford conducted a similar analysis using the 2018 general election returns and arrived at essentially the same result. SUMF ¶ 57 (Alford at tbls. 1-6).

Finally, in all but one instance out of the elections examined, the white majority voted "sufficiently as a bloc to enable it . . . to defeat the minority's preferred candidate." SUMF \P 64 (Palmer Report at 6-8, tbls. 1-5).⁶

⁶ In 2012, four-time incumbent John J. Barrow, the candidate of choice among African Americans, won reelection in CD 12, with 94.3 percent of the African American vote and 27.5 percent of the white vote. Barrow was defeated in 2014;

None of this is in dispute. Rather, the only material dispute among the parties' experts is the extent to which the divergent voting patterns among African-American and white voters are attributable to race, as opposed to partisanship. SUMF ¶ 67 (Alford Report at 10). But federal courts in this circuit have made clear that this distinction is not relevant in determining whether Plaintiffs have established the Gingles preconditions.⁷ The Eleventh Circuit's ruling in Nipper v. Smith, even while permitting evidence regarding "the absence of racial bias in the voting community" under the totality of the circumstances analysis, reaffirmed that, in so doing, "a defendant is not rebutting the plaintiff's evidence of racial bloc voting." 39 F.3d 1494, 1525, n.60 (11th Cir. 1994). And other courts have followed suit by considering evidence of non-racial explanations for bloc voting, if at all, in the second phase of the Section 2 analysis, after determining whether the Gingles preconditions had been met. See e.g., Ga. State Conf. of the NAACP v. Fayette Cnty. Bd. of Comm'rs, 118 F. Supp. 3d 1338, 1345-46 (N.D. Ga. 2015).

although he received a whopping 97.5 percent of the African American vote, he received only 17.4 percent of the white vote. SUMF \P 64 (Palmer Report at 6-8, tbls. 1-5).

⁷ Notably, the Supreme Court's plurality opinion in *Gingles* held that "the reasons black and white voters vote differently have no relevance to the central inquiry of § 2." *Gingles*, 478 U.S. at 63.

Nonetheless, even if the Court were to consider the role of partisanship in explaining racial bloc voting as part of its analysis of the Gingles preconditions, Plaintiffs have also provided unrefuted expert analysis and testimony demonstrating that partisanship in Georgia is inextricably intertwined with race. SUMF ¶¶ 71-75 (Expert Report of Vincent Hutchings ¶¶ 1, 9-10, Khanna Decl. Ex. 9 ("Hutchings Report")). Plaintiffs' expert Dr. Vincent Hutchings's declaration explains that race is "the single greatest demographic factor shaping the current partisan divide in the South," and the relationship between race and partisan preference is sustained even after holding relevant socio-demographic characteristics constant. SUMF ¶¶ 71-75 (Hutchings Report ¶ 15). Dr. Hutchings also found, consistent with a broad range of political science scholarship, that racial attitudes are strong predicters of partisan preference. SUMF ¶ 73 (Hatchings Rep. ¶¶ 6, 19-24). Defendant has offered no expert testimony to refute Dr. Hutchings' conclusions.⁸ SUMF ¶¶ 70, 77 (Alford Dep. 124:9-125:21).

⁸ Consistent with Dr. Hutchings's findings, Plaintiffs' testimony further illustrates that race is the driving factor in their voting patterns. For instance, Plaintiff Destinee Hatcher testified that she votes for Democratic candidates "because they were the party that reached out to my community, African-Americans." SUMF ¶ 78 (Deposition of Destinee Hatcher at 37:9-14, Khanna Decl. Ex. 10). Plaintiff Amanda Hollowell testified that she "vote[s] for candidates who are actually looking to represent the platform in progressive issues that affect African-Americans, myself." SUMF ¶ 79 (Deposition of Amanda Hollowell at 21:8-17, Khanna Decl. Ex. 11).

In sum, the voting patterns in central and southeast Georgia demonstrate that African-American and white voters "consistently prefer different candidates," and the white majority has "regularly defeat[ed] the choices of minority voters." *Gingles*, 478 U.S. at 48. Based on the undisputed evidence, Plaintiffs have satisfied the second and third *Gingles* preconditions. Any attempt by Defendant's expert to inject a causation inquiry into this analysis is incorrect as a matter of law, and in any event fails in the face of Plaintiffs' unrefuted expert testimony that the racially polarized voting observed in the region is a reflection of the significant role that race plays in Georgia politics.

III. CONCLUSION

Plaintiffs have satisfied the *Gingles* preconditions as a matter of law. Accordingly, for all of the foregoing reasons, Plaintiffs respectfully request that the Court grant Plaintiffs' Motion for Partial Summary Judgment. Dated: May 1, 2019

Respectfully submitted,

By /s/ Uzoma N. Nkwonta

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LOCAL RULE 7.1(D) CERTIFICATION OF COMPLIANCE

I certify that this pleading has been prepared with Times New Roman 14

point, as approved by the Court in L.R. 5.1(C), NDGa.

Respectfully submitted, this 1st day of May, 2019.

/s/ Uzoma Nkwonta

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CERTIFICATE OF SERVICE

I hereby certify that on May 1, 2019, I filed a copy of the foregoing Memorandum in Support of Plaintiffs' Motion for Partial Summary Judgment with the Clerk of the Court using the CM/ECF system, which will send notification of such filing to all counsel of record.

/s/ Uzoma N. Nkwonta

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

PAMELIA DWIGHT, an individual; BENJAMIN DOTSON, an individual; MARION WARREN, an individual; AMANDA HOLLOWELL, an individual; DESTINEE HATCHER, an individual; and WILBERT MAYNOR, an individual, RCYDOCKET.COM

Civil Action No. 1:18-cv-2869-RWS

Plaintiffs,

v.

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

Defendant.

STATEMENT OF UNDISPUTED MATERIAL FACTS **IN SUPPORT OF PLAINTIFFS' MOTION** FOR PARTIAL SUMMARY JUDGMENT

Plaintiffs PAMELA DWIGHT, BENJAMIN DOTSON, MARION

WARREN, AMANDA HOLLOWELL, DESTINEE HATCHER, and WILBERT

MAYNOR, by and through undersigned counsel and pursuant to Rule 56 of the

Federal Rules of Civil Procedure and Rules 7.1 and 56.1(B)(1) of the Local rules

for the United States District Court, Northern District of Georgia, file this

Statement of Undisputed Material Facts in Support of Plaintiffs' Motion for Partial

Summary Judgment. The following facts are undisputed and further constitute all material facts necessary to a determination in favor of Plaintiffs' Motion.¹

I. GEORGIA DEMOGRAPHICS

 According to the 2010 Census, Georgia has a total population of 9,687,653. Non-Hispanic Whites are a majority of the population (55.88 percent). African Americans comprise 31.53 percent of the population. Latinos comprise 8.81 percent of the population. The 2010 total minority population in Georgia is 44.12 percent, consisting of all persons who are not non-Hispanic White. Declaration of William S. Cooper ¶ 26, Khanna Decl. Ex. 1 (hereinafter "Cooper Report").

2. According to the 2010 Census, the statewide voting age population is 7,196,101, of whom 29.75 percent are African American and 58.96 percent are non-Hispanic White. Cooper Report ¶ 38, n.7.

3. Plaintiffs contend that the African American population within the Focus Area (defined as CD² 12 and the immediately surrounding districts under the current congressional districting plan—CD 1, CD 8, CD 10, and CD 12—with the

¹ All record citations are attached to the Declaration of Abha Khanna in Support of Plaintiffs' Motion for Partial Summary Judgment (May 1, 2019) (hereinafter "Khanna Decl."), which accompanies this filing.

² "CD" refers to congressional districts. Congressional districts are also referred to as "districts."

exception of counties within the Atlanta and Athens metropolitan statistical areas) is sufficiently large and geographically compact to constitute a majority in a congressional district. Cooper Report \P 18.

II. THE 2005 PLAN

4. Under Georgia's 2005 congressional plan (the "2005 Plan"), two of Georgia's thirteen districts were majority-African American (CD 4 and CD 5),³ both of which overlapped with the Atlanta metropolitan statistical area. Wright Report at 6.

5. CD 12 under the 2005 Plan was entirely contained within the Focus Area. Based on 2010 Census data, the African American population in CD 12 was 44.24 percent and the African American voting age population ("BVAP") was 41.50 percent. Cooper Report ¶ 49, fig. 10.

³ The term "majority-African American" refers to districts in which a majority of the voting age population is African American. "Black voting age population" or "BVAP" refer to the same. *See* Second Cooper Report ¶ 5 ("The relevant population metric when analyzing whether a minority group is sufficiently numerous to form an additional majority-minority district is the voting age population."); *see also Bethune-Hill v. Virginia State Bd. of Elections*, 137 S. Ct. 788, 799 (2017) (noting that the minority voting age population is the relevant consideration); *Johnson v. De Grandy*, 512 U.S. 997, 1021, n.18 (1994) (voting age population is the relevant metric); *Johnson v. Hamrick*, 296 F.3d 1065, 1070 (11th Cir. 2002) (relying on the African American voting age population as the relevant metric).

6. Based on the increase in Georgia's population as reflected in the 2010 Census, an additional congressional district was added in Georgia, raising the number of districts (and, therefore, the number of representatives from Georgia in Congress) from 13 to 14. Cooper Report ¶ 44; Expert Report of Gina H. Wright at 6, Khanna Decl. Ex. 2 (hereinafter "Wright Report").

III. THE 2011 PLAN

7. The Legislative and Congressional Reapportionment Office of the Georgia General Assembly received the 2010 Census data for Georgia in early 2011, and the General Assembly enacted a new legislative redistricting plan that same year (the "2011 Plan"). Wright Report at 6.

8. The 2011 Plan reduced the BVAP of CD 12 by over 8 percentage points from the 2005 Plan—from 41.5 percent to 33.30 percent. Cooper Report ¶ 58.

9. Most of the counties that were shifted out of CD 12 under the 2011 Plan have African American populations that exceed 50 percent BVAP. Cooper Report ¶¶ 60, 61, fig. 13.
| From 2005 CD 12 | To
2011 CD | Pop. | AP
Black | % AP
Black |
|------------------|---------------|--------|---------------|---------------|
| CHATHAM | 01 | 185361 | 94606 | 51.04% |
| EFFINGHAM (Part) | 01 | 30877 | 3560 | 14.27% |
| JEFFERSON | 10 | 16930 | 9303 | 54.95% |
| GLASCOCK | 10 | 3082 | 265 | 8.60% |
| BALDWIN | 10 | 40201 | 17014 | 42.32% |
| HANCOCK | 10 | 9429 | 7018 | 74.43% |
| WASHINGTON | 10 | 21187 | 11323 | 53.44% |
| JOHNSON | 10 | 9980 | 3531 | 35.38% |
| TALIAFERRO | 10 | 1717 | 1043 | 60.75% |
| WARREN | 10 | 5834 | 3624 | 62.12% |
| From Subtotal | | 324598 | 151287 | 46.61% |
| | | A LEY | | |

10. By contrast, all counties that were shifted into CD 12 under the 2011

Plan have BVAPs below 50 percent. Cooper Report ¶¶ 60, 61, fig. 13.

	1			
To 2011 CD 12	From 2005 CD	Pop.	AP Black	% AP Black
APPLING	01	18236	3483	19.10%
COFFEE	01	42356	11594	27.37%
COLUMBIA	10	108725	17370	15.98%
JEFF DAVIS	01	15068	2302	15.28%
LAURENS	08	48434	17654	36.45%
RICHMOND	10	83804	35340	42.17%
WHEELER	01	7421	2647	35.67%
To Subtotal		324044	90390	27.89%

11. In total, under the 2011 Plan, 46.61 percent of total population shifted out of CD 12 (324,598) was African American; whereas only 27.89 percent of the total population that the 2011 Plan shifted into CD 12 (324,044) was African

American. This results in a BVAP decrease in CD 12 from 41.50 percent under the 2005 Plan to 33.30 percent under the 2011 Plan. Cooper Report ¶ 62.

12. 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, and assigns a score on a range between 0 and 1, with 1 being the most compact. Cooper Report ¶ 75, n.16.

13. CD 12 under the 2011 Plan has a Reock score of 0.41. Cooper Report fig. 18. The thirteen remaining districts in the 2011 Plan have Reock scores ranging between 0.33 and 0.55. Cooper Report Ex. J-2. Overall, the districts in the 2011 Plan have a mean Reock score of 0.45. Cooper Report fig. 18.

14. The Polsby-Popper test computes the ratio of the district area to the area of a circle with the same perimeter, and assigns a score between 0 and 1, with 1 being the most compact. Cooper Report ¶ 75, n.16.

15. CD 12 under the 2011 Plan has a Polsby-Popper compactness score of 0.18. Cooper Report fig. 18. The thirteen remaining districts in the 2011 Plan have Polsby-Popper scores ranging between 0.16 and 0.37. Cooper Report Ex. J-2. Overall, the districts in the 2011 Plan have a mean Polsby-Popper score of 0.26. Cooper Report fig. 18. 16. A voting tabulation district ("VTD") is a census bureau term, which generally corresponds to voting precincts. Cooper Report ¶ 77, n.18.

17. CD 12 under the 2011 Plan splits five 2016 VTDs. Cooper Report fig.19.

18. The 2011 Plan overall splits 16 counties and includes 38 populated splits of 2016 VTDs. Cooper Report fig. 19.

19. The 2011 Plan contains 22 discrete county splits, i.e. unique county-district combinations. Cooper Report ¶ 63; Second Declaration of William S.
Cooper ¶ 31, Khanna Decl. Ex. 3 (hereinafter "Second Cooper Report").

20. The 2011 Plan splits Henry County between three districts—CD 3, CD 10, and CD 13. Cooper Report ¶ 63.

IV. PLAINTIFFS' ILLUSTRATIVE PLANS

21. Plaintiffs submitted three illustrative plans, each of which contains one additional majority-African American district than under the 2011 Plan.
Cooper Report ¶¶ 6, 63-79; Second Cooper Report ¶¶ 34-47.

22. Defendant's expert, Gina Wright, agrees that the Illustrative Plans increase by one the number of districts with an African American voting age population above 50 percent. Deposition of Gina Wright at 119:9-14, Khanna Decl. Ex. 4 (hereinafter "Wright Dep.").

23. Each illustrative plan consists of 14 single-member congressional districts. Cooper Report figs. 14, 16, Exs. H-2, I-2; Second Cooper Report fig. 2, Ex. B-2.

24. Each illustrative plan contains four districts in which the BVAP is above 50 percent. Cooper Report figs. 14, 16, Exs. H-2, I-2; Second Cooper Report fig. 2, Ex. B-2.

25. In each of the illustrative plans, the proposed, new majority-African American district ("Proposed District 12") is located in the Focus Area. Cooper Report ¶ 7, n.4, figs. 14, 16; Second Cooper Report ¶ 35, fig. 2.

26. Each illustrative plan includes portions of Bibb County in the
Proposed District 12. Cooper Report ¶ 7, n.4, figs. 14, 16; Second Cooper Report ¶
35, fig. 2.

27. Bibb County is currently split between CD 8 and CD 2, and a portion of Bibb County shares the same state Senate district with other counties in the illustrative plans' Proposed District 12, including Hancock and Washington counties. Cooper Report ¶ 14, Ex. E; Second Cooper Report fig. 2.

28. The Proposed District 12 in the illustrative plans is generally in the same location as the current CD 12 under the 2011 Plan. Wright Dep. at 244:8-14.

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29. Ms. Wright examined Mr. Cooper's illustrative plans and does not contend that the Proposed District 12 in the illustrative plans are "not compact." Rather, Ms. Wright's conclusion is that the Proposed District 12 is less compact than the current CD 12. Wright Dep. at 145:1-13; 146:7-12.

30. Ms. Wright also does not contend that the African American communities within Mr. Cooper's Proposed District 12 are not sufficiently compact. Rather, Ms. Wright's conclusion is that the African American community in the Proposed District 12 is "less compact than what you would find for the District 2 area." Wright Dep. at 134:9-136:12 ON DEMOC

Illustrative Plan 1

Based on the 2010 Census, Proposed District 12 in Illustrative Plan 1 31. has a BVAP of 50.32 percent. As of December 2017, 55.4 percent of registered voters in Proposed District 12 under Illustrative Plan 1 are non-Hispanic Black. Cooper Report ¶ 67.

32. Proposed District 12 in Illustrative Plan 1 has a Reock compactness score of 0.35. The thirteen remaining districts in Illustrative Plan 1 have Reock scores ranging between 0.26 and 0.54. Overall, the districts in Illustrative Plan 1 have a mean Reock score of 0.44. Cooper Report fig. 18, Ex. J-3; Wright Report at 17.

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33. Proposed District 12 in Illustrative Plan 1 has a Polsby-Popper compactness score of 0.16. The thirteen remaining districts in Illustrative Plan 1 have Polsby-Popper scores ranging between 0.14 and 0.37. Overall, the districts in Illustrative Plan 1 have a mean Polsby-Popper score of 0.24. Cooper Report fig.18, Ex. J-3; Wright Report at 18.

34. Proposed District 12 under Illustrative Plan 1 splits three 2016 VTDs.Cooper Report fig. 19.

35. Illustrative Plan 1 splits 17 counties overall and contains 38 populated splits of 2016 VTDs. Cooper Report fig. 19.

36. Illustrative Plan 1 contains 22 discrete county splits, i.e. unique county-district combinations. Cooper Report ¶¶ 63, 78; Second Cooper Report ¶
31.

37. Illustrative Plan 1 eliminates the three-district split (CD 3, CD 10, and CD 13) of Henry County that occurred under the 2011 Plan. Henry County is split between two districts in Illustrative Plan 1 (Districts 10 and 13). Cooper Report ¶ 63.

38. All of the districts in Illustrative Plan 1 are contiguous.⁴ CooperReport ¶ 63, fig. 14.

39. No incumbents elected in 2018 are paired in the same district underIllustrative Plan 1. Cooper Report ¶ 63.

Illustrative Plan 2

40. Based on the 2010 Census, Proposed District 12 in Illustrative Plan 2 has a BVAP of 50.26 percent. As of December 2017, 55 27 percent of registered voters in Proposed District 12 under Illustrative Plan 2 are non-Hispanic black. Cooper Report ¶ 72.

41. Proposed District 12 in Illustrative Plan 2 has a Reock compactness score of 0.34. The thirteen remaining districts in Illustrative Plan 2 have Reock scores ranging between 0.34 and 0.54. Overall, the districts in Illustrative Plan 2 have a mean Reock score of 0.44. Cooper Report fig. 18, Ex. J-4; Wright Report at 22.

42. Proposed District 12 in Illustrative Plan 2 has a Polsby-Popper compactness score of 0.17. The thirteen remaining districts in Illustrative Plan 2

⁴ "A district may be defined as contiguous if every part of the district is reachable from every other part without crossing the district boundary (i.e., the district is not divided into two or more discrete pieces)." Bernard Grofman, *Criteria for Redistricting: A Social Science Perspective*, 33 UCLA Law Rev. 77, 84 (1985); Wright Dep. at 54:6-14.

have Polsby-Popper scores ranging between 0.15 and 0.37. Overall, the districts in Illustrative Plan 2 have a mean Polsby-Popper score of 0.25. Cooper Report fig. 18, Ex. J-4; Wright Report at 23.

43. Proposed District 12 under Illustrative Plan 2 splits five 2016 VTDs.Cooper Report fig. 19.

44. Illustrative Plan 2 splits 18 counties overall and contains 39 populated splits of 2016 VTDs. Cooper Report fig. 19.

45. Illustrative Plan 2 contains 23 discrete county splits, i.e. unique county-district combinations. Cooper Report **1** 63, 78.

46. Illustrative Plan 2 eliminates the three-district split (CD 3, CD 10, and CD 13) of Henry County that occurred under the 2011 Plan. Henry County is split between two districts in Illustrative Plan 2 (Districts 10 and 13). Cooper Report ¶ 63.

47. All of the districts in Illustrative Plan 2 are contiguous. Cooper Report ¶ 63, fig. 16.

48. No incumbents elected in 2018 are paired in the same district under Illustrative Plan 2. Cooper Report ¶ 63.

Illustrative Plan 3

49. Based on the 2010 Census, Proposed District 12 in Illustrative Plan 3 has a BVAP of 50.20 percent. As of December 2017, 55.25 percent of registered voters in Proposed District 12 under Illustrative Plan 3 are non-Hispanic black. Second Cooper Report ¶ 35.

50. Proposed District 12 in Illustrative Plan 3 has a Reock compactness score of 0.34. The thirteen remaining districts in Illustrative Plan 3 have Reock scores ranging between 0.35 and 0.54. Overall, the districts in Illustrative Plan 3 have a mean Reock score of 0.44. Second Cooper Report ¶ 39, Ex. B-7.

51. Proposed District 12 in Illustrative Plan 3 has a Polsby-Popper compactness score of 0.17. The thirteen remaining districts in Illustrative Plan 3 have Polsby-Popper scores ranging between 0.14 and 0.37. Overall, the districts in Illustrative Plan 3 have a mean Polsby-Popper score of 0.25. Second Cooper Report ¶ 40, Ex. B-8

52. Illustrative Plan 3 splits 17 counties overall and contains 39 populated splits of 2016 VTDs. Second Cooper Report ¶ 38, Ex. B-3.

53. Illustrative Plan 3 eliminates the three-district split (CD 3, CD 10, and CD 13) of Henry County that occurred under the 2011 Plan. Henry County is split

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between two districts in Illustrative Plan 3 (CD 3 and CD 13). Second Cooper Report, Ex. B-3.

54. All of the districts in Illustrative Plan 3 are contiguous, and Illustrative Plan 3 displaces fewer residents from CD 12 than the 2011 Plan by retaining 64 percent of the CD 12 population (from the 2005 Plan) compared to 53 percent retained in the 2011 Plan. Second Cooper Report ¶¶ 44-45, 47, fig. 2.

55. No incumbents elected in 2018 are paired in the same district under Illustrative Plan 3. Second Cooper Report ¶ 47.

V. ELECTIONS ANALYSIS

56. Dr. Maxwell Palmer employed a statistical method called Ecological Inference ("EI") to derive his estimates of the percentage of each group (African American and white voters) that voted for each candidate in elections for U.S. Congress and statewide elections for U.S. President, U.S. Senate, Governor, Lieutenant Governor, Secretary of State, Attorney General, Commissioner of Agriculture, Commissioner of Insurance, Commissioner of Labor, and School Superintendent from 2012-2018. Expert Report of Maxwell Palmer at 5, figs. 2-6, tbls. 1-5, Khanna Decl. Ex. 5 (hereinafter "Palmer Report"); Rebuttal Report of Maxwell Palmer at 2, Khanna Decl. Ex. 6 (hereinafter "Second Palmer Report"). 57. Dr. Alford replicated Dr. Palmer's EI analysis in estimating the level of support among African American and white voters for candidates in statewide and congressional races in the 2012-2018 general elections. Expert Report of John Alford at 4, 6-7, tbls. 1-6, Khanna Decl. Ex. 7 (hereinafter "Alford Report").

58. Dr. Alford does not dispute Dr. Palmer's methods or the empirical results in Dr. Palmer's Report. Alford Report at 4; Deposition of John Alford at 77:8-22; 86:2-87:18, Khanna Decl. Ex. 8 (hereinafter "Alford Dep.").

VI. SUMMARY OF VOTING PATTERNS

59. Among the elections analyzed, in each of the four districts individually and the Focus Area as a whole, the estimate of the African American vote share for the African American-preferred candidate is over 88 percent, and in all but one individual contest, the estimate surpassed 90 percent. Palmer Report, tbls. 1-5; Second Palmer Report, tbls. 1-5; Alford Report at 4.

60. Among the elections analyzed, in each of the four districts individually and the Focus Area as a whole, the estimate of the white vote for the African American-preferred candidate is below 27.5 percent. Palmer Report, tbls. 1-5; Second Palmer Report, tbls. 1-5; Alford Report at 4.⁵

⁵ Excluding John Barrow in the 2012 CD 12 election, the maximum level of support by White voters for an African American-preferred candidate of choice was 18.6 percent. Palmer Report at 7.

61. In the 2012, 2014, and 2016 elections, the average difference in support between African American voters and white voters for the African American-preferred candidate was 86.5 percentage points in CD 12, 82.2 percentage points in CD 1, 87.7 percentage points in CD 8, 88.4 percentage points in CD 10, and 87.7 percentage points in the Focus Area as a whole. Palmer Report at 7.

62. In the 2018 elections, the average difference in support between African American voters and white voters for the African American candidate of choice in each district was 91.7 percentage points in CD 12, 81.6 percentage points in CD 1, 91.1 percentage points in CD 8, 91.3 percentage points in CD 10, and 90.1 percentage points in the Focus Area. Second Palmer Report at 2.

63. African Americans in the Focus Area vote cohesively for their candidates of choice. Palmer Report at 6-8, tbls. 1-5; Second Palmer Report, tbls.
1-5; Alford Report, tbls. 1-6; Alford Dep. at 86:5-19.

64. The white majority usually votes as a bloc to defeat the African American candidate of choice. Palmer Report at 6-8, tbls. 1-5; Second Palmer Report, tbls. 1-5; Alford Dep. at 206:17-22. In all but one of the elections examined, the white-preferred candidate defeated the African American-preferred candidate. The only exception occurred in 2012, when four-time incumbent John J. Barrow, the candidate of choice among African-Americans, won reelection in CD 12, with 94.3 percent of the African American vote and 27.5 percent of the white vote. Barrow was defeated in 2014; although he received a whopping 97.5 percent of the African American vote, he received only 17.4 percent of the white vote. Palmer Report at 6-8, tbls. 1-5.

VII. ELECTION ANALYSIS CONCLUSIONS

65. Dr. Alford agrees that Dr. Palmer's EI analysis demonstrates that African Americans in the Focus Area vote cohesively in support of the same candidates. Alford Dep. at 86:2-87:18; Alford Report at 9.

66. Dr. Alford agrees that the white majority usually votes as a bloc to defeat the African American candidate of choice. Alford Dep. at 206:17-22.

67. Dr. Alford's report states party polarization best explains the voting patterns in the Focus Area. Alford Report at 9.

68. Dr. Alford agrees that Dr. Palmer's report shows that voting is highly polarized, and that highly polarized voting is a characteristic that has always served as a strong indicator of racially polarized voting. Alford Dep. at 121:15-122:2.

69. Dr. Alford does not claim that racial polarization is absent in Georgia or in the Focus Area. *Id*.

70. Dr. Alford does not offer any opinion or evidence as to the reason why African American voters supported Democratic candidates in the elections analyzed. Alford Dep. 125:14-21.

71. The majority of white voters in Georgia identify as Republican, while the majority of African American voters identify as Democrats. Expert Report of Vincent Hutchings ¶¶ 9-10, Khanna Decl. Ex. 9 (hereinafter "Hutchings Report").

72. Partisan preferences in the South, including Georgia, are influenced by racial attitudes. Hutchings Report ¶ 19.

73. Results from surveys conducted in 2012 and 2016 by the American National Election Study ("ANES") revealed that the estimated probability of identifying with the Democratic Party for Whites in the South who endorse the perception that African Americans exert too much influence in politics was 0.13 in 2012, and 0.04 in 2016, even after controlling for ideological views on the preferred size of government. And these results are statistically significant at the .05 level. Hutchings Report ¶¶ 6, 19-20.

74. For many southern, white voters, the appeal of the Republican Party is its embrace of racial conservatism, often expressed through opposition to government efforts to reduce racial inequities. Hutchings Report \P 23.

75. Dr. Hutchings finds that partisanship is not an independent cause of the divergent voting patterns of African American and White voters, but rather is a symptom of racial polarization, and thus is inextricably linked with race. Hutchings Report ¶ 1.

76. Dr. Alford agrees that if the diverging vote patterns of African Americans and Whites are consistent with preferences on issue positions relating to racial issues, then those vote patterns would be consistent with racially polarized voting. Alford Dep. at 93:6-94:16.

77. Dr. Alford is not commenting on Dr. Hutchings' analysis of the factors influencing party identification. The topics addressed in Dr. Hutchings' expert report are "not an area [Dr. Alford] do[es] work in." Alford Dep. 124:9-125:13.

78. Plaintiff Destinee Hatcher testified that she votes for Democratic candidates "because they were the party that reached out to my community, African-Americans." Deposition of Destinee Hatcher at 37:9-14, Khanna Decl. Ex. 10.

79. Plaintiff Amanda Hollowell testified that she "vote[s] for candidates who are actually looking to represent the platform in progressive issues that affect

African-Americans, myself." Deposition of Amanda Hollowell at 21:8-17, Khanna Decl. Ex. 11.

80. Plaintiff Marion Warren testified that "African Americans feel that the Democrat is the inclusive party . . . [t]he Republican Party has never ever offered the black race anything" Deposition of Marion Warren at 61:11-63:17, Khanna Decl. Ex. 12.

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Dated: May 1, 2019

Respectfully submitted,

By /s/ Uzoma N. Nkwonta Marc Erik Elias* Bruce V. Spiva* Uzoma N. Nkwonta* **Perkins Coie, LLP** 700 13th St. N.W., Suite 600 Washington, D.C. 20005-3960 Phone: (202) 654-6338 Fax: (202) 654-9106 Email: MElias@perkinscoie.com Email: BSpiva@perkinscoie.com Email: UNkwonta@perkinscoie.com Abha Khanna* **Perkins Coie, LLP** 1201 Third Avenue, Ste. 4900 RETRIEVEDFROMD Seattle, WA 98101-3099 Phone: (206) 359-8000 Fax: (206) 359-9000 Email: AKhanna@perkinscoie.com

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Attorneys for Plaintiffs *Admitted pro hac vice

CERTIFICATE OF SERVICE

I hereby certify that on May 1, 2019, I filed a copy of the foregoing Statement of Undisputed Material Facts in Support of Plaintiffs' Motion for Partial Summary Judgment with the Clerk of the Court using the CM/ECF system, which will send notification of such filing to all counsel of record.

/s/ Uzoma N. Nkwonta

Uzoma N. Nkwonta **Perkins Coie, LLP** 700 13th St. N.W., Suite 600 Washington, D.C. 20005-3960 Phone: (202) 654-6338 Fax: (202) 654-9106 Email: UNkwonta@perkinscoie.com

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

PAMELIA DWIGHT, an individual; **BENJAMIN DOTSON**, an individual; MARION WARREN, an individual; AMANDA HOLLOWELL, an individual; DESTINEE HATCHER, an individual; and WILBERT MAYNOR, an individual, RCYDOCKET.COM

Civil Action No. 1:18-cv-2869-RWS

Plaintiffs,

v.

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

Defendant.

DECLARATION OF ABHA KHANNA IN SUPPORT OF PLAINTIFFS' **MOTION FOR PARTIAL SUMMARY JUDGMENT**

I, Abha Khanna, hereby declare:

I am a partner with the law firm of Perkins Coie LLP and one of the

attorneys for Plaintiffs in the above-captioned matter. I am over the age of 18

and am competent to testify.

Attached hereto as Exhibit 1 is a true and correct copy of the Declaration of 1.

William S. Cooper, dated December 3, 2018.

2. Attached hereto as Exhibit 2 is a true and correct copy of the Expert Report of Gina H. Wright, dated January 25, 2019.

3. Attached hereto as Exhibit 3 is a true and correct copy of the Second Declaration of William S. Cooper, dated February 22, 2019.

4. Attached hereto as Exhibit 4 is a true and correct copy of excerpts from the deposition transcript of Gina H. Wright, dated March 19, 2019.

5. Attached hereto as Exhibit 5 is a true and correct copy of the Report of Maxwell Palmer, Ph.D., dated December 3, 2018

6. Attached hereto as Exhibit 6 is a true and correct copy of the Rebuttal Report of Maxwell Palmer, dated February 22, 2019.

7. Attached hereto as Exhibit 7 is a true and correct copy of the Expert Report of John R. Alford, Ph.D., dated January 25, 2019.

8. Attached hereto as Exhibit 8 is a true and correct copy of excerpts from the deposition transcript of John Alford, dated March 28, 2019.

9. Attached hereto as Exhibit 9 is a true and correct copy of the Declaration of Vincent L. Hutchings, dated February 22, 2019.

10. Attached hereto as Exhibit 10 is a true and correct copy of excerpts from the deposition transcript of Destinee Hatcher, dated March 26, 2019.

11. Attached hereto as Exhibit 11 is a true and correct copy of excerpts from the deposition transcript of Amanda Hollowell, dated March 26, 2019.

Attached hereto as Exhibit 12 is a true and correct copy of excerpts from the 12. deposition transcript of Marion Warren, dated March 29, 2019.

EXECUTED at Seattle, Washington this 1st day of May, 2019.

<u>s/ Abha Khanna</u> Abha Khanna* AKhanna@perkinscoie.com **Perkins Coie LLP** 1201 Third Avenue, Ste. 4900 Seattle, WA 98101-3099 RETRIEVEDFROMDE Ph.: (206) 359-8000 / F: (206) 359-9000

*Admitted pro hac vice

CERTIFICATE OF SERVICE

I hereby certify that on May 1, 2019, I filed a copy of the foregoing Declaration of Abha Khanna in Support of Plaintiffs' Motion for Partial Summary Judgment with the Clerk of the Court using the CM/ECF system, which will send notification of such filing to all counsel of record.

/s/ Uzoma N. Nkwonta

Uzoma N. Nkwonta **Perkins Coie, LLP** 700 13th St. N.W., Suite 600 Washington, D.C. 20005-3960 Phone: (202) 654-6338 Fax: (202) 654-9106 Email: UNkwonta@perkinscoie.com

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

PAMELIA DWIGHT, et al.,

Plaintiffs,

v.

Civil Case No. 1:18-cv-2869-RWS

BRIAN KEMP,

Defendant.

DECLARATION OF WILLIAM SCOOPER

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 40 voting rights cases since the late 1980s. Over 25 of the cases led to changes in local election district plans. Four 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); and *Alabama Legislative Black Caucus v. Alabama*, No. 12-cv-691 (M.D. Ala. 2017). In *Bone Shirt v. Hazeltine*, the court adopted the remedial plan I developed – *Bone Shirt v. Hazeltine*, No. 01-cv-3032 (D.S.D. 2005).

3. I also served as the *Gingles 1* expert for two post-2010 Section 2 cases in Georgia, *NAACP v. Fayette County, Georgia* and *NAACP v. Emanuel County, Georgia*, in which the parties settled on redistricting plans 1 developed (with input from the respective defendants). I currently serve as the *Gingles 1* expert in two additional Section 2 cases in Georgia – *Georgia NAACP, et al. v. Gwinnett County et al.* and *Thompson v. Kemp, et al.*

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

A. Purpose of Declaration

5. The purpose of this report is to determine whether the African American¹ population is "sufficiently numerous and geographically compact"² to

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.

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

allow for the creation of a majority-Black congressional district in central and southeast Georgia.

For my analysis, I focused on the region in central and southeast 6. Georgia in and around CD 12. This encompasses all or parts of four congressional districts under the 2011 Plan – CD 1, CD 8, CD 10, and CD 12.

7. In order to respect communities of interest, I excluded counties within the Atlanta MSA and the Athens MSA.³ The remaining 71 counties comprise the

Gingles 1 focus area.⁴

⁻JRACYDOCKET.COM ³ MSA is an abbreviation for "metropolitan statistical area." "A metropolitan statistical area comprises the central county or counties or equivalent entities containing the core, plus adjacent outlying counties having a high degree of social and economic integration with the central county or counties as measured through commuting." https://www.census.gov/geo/reference/gtc/gtc_cbsa.html

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.

⁴ The Atlanta MSA (officially known as "Atlanta-Sandy Springs-Roswell MSA") encompasses 29 counties. CD 10 encompasses all or parts of eight Atlanta MSA counties – Barrow, Butts, Gwinnett, Henry, Jasper, Morgan, Newton, and Walton. Three majority-Black districts (CD 4, CD 5, and CD 13) are within the boundaries of the Atlanta MSA under the 2011 Plan. The Athens MSA (officially known as "Athens-Clarke County MSA") encompasses four counties -Clarke, Madison, Oconee, and Oglethorpe.

The 71 counties are: Appling, Atkinson, Bacon, Baldwin, Ben Hill, Berrien, Bibb, Bleckley, Brantley, Brooks, Bryan, Bulloch, Burke, Camden, Candler, Charlton, Chatham, Clinch, Coffee, Colquitt, Colombia, Cook, Dodge, Echols, Effingham, Emanuel, Evans, Glascock, Glynn, Greene, Hancock, Houston, Irwin, Jeff Davis, Jefferson, Jenkins, Johnson, Jones, Lanier, Laurens, Liberty, Lincoln, Long, Lowndes, McDuffie, McIntosh, Monroe, Montgomery, Pierce, Pulaski, Putnam, Richmond, Screven, Taliaferro, Tattnall, Telfair, Thomas, Tift, Toombs, Treutlen, Turner, Twiggs, Ware, Warren, Washington, Wayne, Wheeler, Wilkes, Wilcox, Wilkinson, and Worth.

8. In addition, for statewide and regional background, I reviewed historical and current demographics reported in the decennial census, as well as post-2010 population estimates and socioeconomic characteristics reported in the American Community Survey ("ACS"), published by the U.S. Census Bureau ("Census Bureau").

B. 71-County Area for the *Gingles 1* Analysis

9. The 71-county area has a 2010 population of 2,395,458 million (34.63% Black), representing a population base that is sufficient to comprise 3.46 whole congressional districts.
10. From the perspective of a *Gingles I* analysis, the 71-county area can

10. From the perspective of a *Gingles 1* analysis, the 71-county area can be treated as a single entity – effectively the geographic and demographic equivalent of a state. With approximately 2.4 million residents, the area has a population that is larger than 15 states.

11. For reference, the maps below highlight the 71-county area within the geographic context of the "benchmark" 2005 Plan (Figure 1) and the current 2011 Plan (Figure 2). The area is roughly bounded by Interstate 75 to the west, Interstate 20 to the north, the Savannah River and the conterminous South Carolina state line to the east, and Florida to the south.

12. In the **Figure 1** and **Figure 2** maps, black lines demarcate the Atlanta MSA and the Athens MSA. The 71-county area is displayed in unshaded, brighter

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colors. The shaded area identifies counties that are outside the focus area, i.e. either inside the Atlanta MSA or the Athens MSA, or outside CD 1, CD 8, CD 10, and CD 12 under the 2011 Plan.



13. Under the 2005 Plan, in the Figure 1 map above, Lowndes County was split between CD 1 and CD 2, Worth County was split between CD 8 and CD 2, Richmond County was split between CD 12 and CD 10, and Chatham County was split between CD 12 and CD 1.



14. Under the 2011 Plan, in the **Figure 2** map above, Lowndes County is split between CD 1 and CD 2, Bibb County is split between CD 8 and CD 2, Effingham County is split between CD 12 and CD 1, and Columbia County is split between CD 12 and CD 10.

15. Higher resolution versions of **Figure 1** and **Figure 2** identify MSAs south of Atlanta with pink lines (see **Exhibit B-1** and **Exhibit B-2**.)

16. The 71-county area encompasses three primary population centers – Macon (consolidated with Bibb County in 2014), Augusta (consolidated with Richmond County in 1996), and Savannah (Chatham County).⁵ All three jurisdictions represent the urban centers of eponymous multi-county MSAs.

17. According to the 2010 Census, population totals in the three MSAs are as follows: Macon – 232,293 (44.2% Black), Augusta – 377,789 (41.04%), and Savannah – 374,611 (34.96% Black). The three MSAs have a combined 2010 population of 957,693 (39.60% Black).

⁵ In the remainder of this declaration, references to "central and southeast Georgia" and "71-county area" are synonymous.

[&]quot;Bibb County" denotes consolidated Macon-Bibb County. "Richmond County" denotes consolidated Augusta-Richmond County, as well as the unconsolidated municipalities in the county.

C. Summary of Expert Conclusions

18. I conclude that the African American population in central and southeast Georgia is sufficiently numerous and geographically compact to allow for the creation of a majority-Black congressional district.

19. The creation of a majority-Black district in central and southeast
Georgia requires modifications to six districts under the 2011 Plan – CD 1, CD 2,
CD 3, CD 8, CD 10, and CD 12. No changes are necessary in the other eight
districts.

20. I also conclude that African Americans in Georgia and in the central and southeast part of the state lag behind non-Hispanic Whites across virtually all key indicators of socioeconomic well-being.⁶

D. Organization of Declaration

21. The remainder of this declaration is organized as follows: Section II reviews state and regional demographics; Section III discusses some of the changes that were made to the relevant districts in the 2011 Plan; Section IV presents two illustrative plans – both of which feature a new majority-Black congressional district in central and southeastern Georgia; Section V reviews

⁶ In this declaration, "White" or "NH White" denotes single-race non-Hispanic White. "Latino" and "Hispanic" are synonymous. Latinos may be of any race.

population change since 2010; **Section VI** reviews socioeconomic disparities by race at the state and regional levels.

22. **Exhibit** C describes the sources and methodology I have employed in the preparation of this declaration.

II. DEMOGRAPHIC PROFILE – STATEWIDE AND REGIONAL

23. This section provides demographics for Georgia and the 71-county area in central and southeast Georgia. For both geographic areas (statewide and regional), the tables in this section detail race and ethnicity based on: (1) 2000 to 2010 population, (2) 2000 to 2010 percent population change, and (3) components of population gain/loss (2000 to 2010), i.e. the share that each racial/ethnic classification has contributed to overall population growth.

24. In this section, for ease of reference to the data tables, numerical citations in the text that refer to the tables are in bold-face font, with corresponding data in the tables identified with red font.

A. Statewide

(1) 2000 to 2010 – Population by Race and Ethnicity

25. The table in **Figure 3** (next page) presents the population of Georgia by race and ethnicity for the 2000 and 2010 decennial censuses.

26. As shown in the table in **Figure 3**, according to the 2010 Census, Georgia has a total population of **9,687,653**. Non-Hispanic Whites ("NH White")

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are a majority of the population (55.88%). African Americans –31.53% Any Part

Black ("AP Black" or "Black") – comprise the largest minority population,

followed by Latinos (8.81%). The 2010 total minority population in Georgia is

44.12%, consisting of all persons who are not NH White.

	2000		2010		% 2000 - 2010
	Number	Percent	Number	Percent	Change
Total Population	8,186,453	100.00%	9,687,653	100.0%	18.34%
NH White*	5,128,661	62.65%	5,413,920	D 55.88%	5.56%
Total Minority Pop.	3,057,792	37.35%	4,273,733	44.12%	39.77%
Latino	435,227	5.32%	853,689	8.81%	96.15%
NH Black*	2,331,465	28.48%	2,910,800	30.05%	24.85%
NH Asian*	171,513	2.10%	311,692	3.22%	81.73%
NH Hawaiian and PI*	3,278	0.04%	5,152	0.05%	57.17%
NH American Indian and Alaska Native*	17,670	0.22%	21,279	0.22%	20.42%
NH Other*	11,275	0.14%	19,141	0.20%	69.76%
NH Two or More Races*	87,364	1.07%	151,980	1.57%	73.96%
SR Black					
(Single-race Black)	2,349,542	28.70%	2,950,435	30.46%	25.57%
AP Black (Any Part Black)	2,393,425	29.24 %	3,054,098	31.53%	27.60%
NH Any Part Black	2,370,236	28.95%	2,997,627	30.94%	26.47%

Figure 3 Georgia – 2000 Census to 2010 Census Population by Race and Ethnicity

* Single-race, non-Hispanic.

27. Figure 3 reveals that Georgia's Black population as a share of the overall statewide population increased between 2000 and 2010 – from 29.24%
Black in 2000 to 31.53% Black in 2010.

28. In 2000, minorities accounted for **37.35%** of the population in

Georgia. By 2010, minorities comprised 44.12% of the population. By contrast, the

White population percentage declined from 62.65% in 2000 to 55.88% in 2010.

29. As shown in **Figure 3**, the population in Georgia grew by **18.34**% between 2000 and 2010 – from **8.19 million** to **9.69 million**.

30. The Black population in Georgia experienced significant growth between 2000 and 2010 (**27.60%**). The minority population grew at a faster pace (**39.77%**), driven by a near-doubling (**96.15**%) of the Latino population. The White population increased at a relatively modest **5.56**% rate.

31. As shown in **Figure 4** (next page), Georgia's population growth since 2000 can be attributed almost entirely to gains in the overall minority population. Between 2000 and 2010, **81.0%** of the population gain is attributed to minority population growth, with **44.01%** of the overall gain attributed to Black population growth –representing more than half of the **1.22 million** minority gain in the decade.

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	2000 Census	2010 Census	2017 Estimate	2000 to 2010 Gain	% of 2000 to 2010 Gain
Total Pop.	8,186,453	9,687,653	10,429,379	1,501,200	100.00%
NH White	5,128,661	5,413,920	5,507,334	285,259	19.00%
Total Minority	3,057,792	4,273,733	4,922,045	1,215,941	81.00%
Latino	435,227	853,689	1,005,959	418,462	27.88%
NH Black	2,331,465	2,910,800	3,267,577	579,335	38.59%
NH Asian	171,513	311,692	430,841	140,179	9.34%
SR Black	2,349,542	2,950,435	3,361,924	600,893	40.03%
AP Black	2,393,425	3,054,098	3,495,258	660,673	44.01%

Figure 4 Georgia – 2000 Census to 2010 Census Components of Total Population Gain by Race and Ethnicity

B. 71-County Area

(1) 2000 to 2010 – Population by Race and Ethnicity

32. The table in **Figure 5** (next page) presents the population of the 71county area by race and ethnicity for the 2000 and 2010 decennial censuses. According to the 2010 Census, the 71-county area has a total population of **2,395,458**. NH Whites are a majority of the population (**58.11%**). African Americans –**34.63%** AP Black – comprise the largest minority population, followed by Latinos (**5.24%**). The 2010 total minority population in the 71-county area is **1,003,360** (**41.89%**), consisting of all persons who are not NH White.

	2000		2010		9/ 2000
	Number	Percent	Number	Percent	2010
Total Population	2,140,924	100.00%	2,395,458	100.00%	11.89%
NH White*	1,306,726	61.04%	1,392,098	58.11%	6.53%
Total Minority Pop.	834,198	38.96%	1,003,360	41.89%	20.28%
Latino	65,217	3.05%	125,440	5.24%	92.34%
NH Black*	720,160	33.64%	798,657	33.34%	10.90%
NH Asian*	20,856	0.97%	32,728	1.37%	56.92%
NH Hawaiian and PI*	1,145	0.05%	1,968	0.08%	71.88%
NH American Indian and Alaska Native*	5,013	0.23%	5,861	0.24%	16.92%
NH Other*	2,065	0.10%	3,142	0.13%	52.15%
NH Two or More Races*	19,742	0.92%	35,564	1.48%	80.14%
SR Black (Single-race Black)	724,784	33.85 %	806,032	33.65%	11.21%
AP Black (Any Part Black)	734,803	34.32%	829,539	34.63%	12.89%
NH Any Part Black	729,002	34.05%	× 818,888	34.19%	12.33%

Figure 5
71-County Area – 2000 Census to 2010 Census
Population by Race and Ethnicity

* Single-race, non-Hispanic.

non-Hispanic. Figure 5 reveals that Black population as a share of the overall 71-33. county population held steady between 2000 and 2010 -increasing by about a quarter of a percentage point from **34.32%** in 2000 to **34.63%** in 2010.

In 2000, minorities accounted for 38.96% of the population in the 71-34. county area. By 2010, minorities comprised **41.89%** of the population. By contrast, the White population percentage declined from 61.04% in 2000 to 58.11% in 2010.

The population in the 71-county area increased by 11.89% between 35. 2000 and 2010 - from 2.14 million to 2.40 million. The Black population in the 71county area experienced significant growth between 2000 and 2010 (12.89%). The minority population grew at a faster pace (20.28%), driven by a near-doubling

(92.34%) of the Latino population. The White population increased at a relatively

modest 6.53% rate.

36. As shown in **Figure 6**, population growth in the 71-county area since

2000 can be attributed primarily to gains in the overall minority population.

	2000 Census	2010 Census	2000 to 2010 Gain	% of 2000 to 2010 Gain
Total Pop.	2,140,924	2,395,458	254,534	100.00%
NH White	1,306,726	1,392,098	85,372	33.54%
Total Minority	834,198	1,003,360	169,162	66.46%
Latino	65,217	125,446	60,223	23.66%
NH Black	720,160	798,657	78,497	30.84%
NH Asian	20,856	32,728	11,872	4.66%
SR Black	724,784	806,032	81,248	31.92%
AP Black	734,803	829,539	94,736	37.22%

Figure 6 71-County Area – 2000 Census to 2010 Census Components of Total Population Gain by Race and Ethnicity

37. Between 2000 and 2010, two-thirds (**66.46%**) of the population gain is attributed to minority population growth, with **37.22%** of the overall gain attributed to Black population growth (**81,248**) – representing nearly half (48.03%) of the **169,162** minority gain.
(2) 2000-2010 VAP by Race and Ethnicity

38. As shown in Figure 7 (next page), according to the 2010 Census, the

71-county area has a total VAP of 1,797,979, of whom 582,484 (32.40%) are Any

Part Black. The NH White VAP in the 71-county area is 1,098,098 (61.07%).7

	2000 VAP	2000 VAP Percent	2010 VAP	2010 VAP Percent
Total	1,564,952	100.00%	1,797,979	100%
NH White	1,002,880	64.08%	1,098,098	61.07%
Total Minority	562,072	35.92%	699,881	38.93%
Latino	43,272	2.77%	80,159	4.46%
NH Black	486,506	31.09%	569,358	31.67%
SR Black	489,323	31.27%	573,846	31.92%
AP Black	493,372 🔊	31.53%	582,484	32.40%

Figure 7 71-County Area -- 2000 Census to 2010 Census Voting Age by Race and Ethnicity

(3) Geographic Distribution of the Black Population

39. The map in **Figure 8** (next page) displays the 2010 percentage of the Black population by county in the 71-county area and vicinity. Black lines delineate the Atlanta MSA and pink lines show MSAs south of Atlanta. A bright green line outlines the 71-county area. The counties are color-coded as follows: pale yellow – counties in which the population is less than 5% Black; bright yellow – 5% to 20%

⁷ According to the 2010 Census, the statewide VAP is 7,196,101, of whom 2,140,789 persons are AP Black (29.75%). Statewide, the NH White VAP is 4,242,514 (58.96%),

Black; light beige – 20% to 40% Black; orange – 40% to 60% Black; and pink –

60% to 75% Black.



Figure 8 2010 Percent Black by County – 71-County Area Bounded by Green Lines

40. **Exhibit D-1** presents 2010 summary population data by race/ethnicity for all Georgia counties. **Exhibit D-2** presents 2017 population estimates by race for all Georgia counties. **Exhibit D-3** presents 2010 summary population data for

the MSAs (Georgia portions only). A green highlight in the **Exhibit D** series identifies the subset of counties or MSAs in the 71- county area.

41. From the tables in **Exhibits D-1** and **D-3**, it is clear that within the 71county area, the African American population is concentrated in the counties of Bibb, Chatham, and Richmond. Taken together, these three counties have a population of 621,224 (48.91% Black), representing over a quarter (25.93%) of the 2.4 million resident population in the 71-county area. As shown in the **Figure 8** map, these three counties are adjacent to or near rural counties and have Black populations in the 40% to 60% range.

42. Each of the three counties contains a majority-Black district under the 2014 State Senate Plan – Macon (SD 26, 57.99% BVAP), Augusta (SD 22, 56.57% BVAP), and Savannah (SD 2, 50.94% BVAP).⁸ Detailed maps and accompanying statistics for the 2014 Senate Plan districts are displayed in **Exhibit E**, which is a packet of maps and statistics produced by the Georgia Legislative and Reapportionment Office.⁹

⁸ In this declaration, BVAP means "Any Part Black Voting Age Population."

⁹ Source: http://www.legis.ga.gov/Joint/reapportionment/en-US/default.aspx

In **Exhibit E**, see p. 3 for maps of Savannah and Augusta. A map of Macon-Bibb is on p. 4. Senate district statistics are on pp. 5-8. A statewide map of the 2014 Senate Plan is on p.1.

43. The ideal district size for the 56-member Georgia State Senate is
172,994. Taken together, SD 2, SD 22, and SD 26 have a population of 515,563
(55.11% BVAP) – equivalent to 75% of a congressional district.

III. 2011 PLAN CHANGES IN CENTRAL AND SOUTHEAST GEORGIA

44. In 2010, Georgia gained one district – from 13 in the 2005 Plan to 14 in the 2011 Plan. Based on the 2010 Census, central and southeast Georgia had the population base to support one majority-Black district out of four.

A. 2005 Plan

45. Exhibit F-1 is a statewide map depicting the 2005 Plan. Exhibit F-2 reports 2010 summary population statistics for all districts in the 2005 Plan. For historical comparison, Exhibit F-3 reports 2000 Census summary population statistics for all districts in the 2005 Plan. Exhibit F-4 identifies the 20 counties that are split under the 2005 Plan.

46. The rapid growth (+18.34%) of Georgia's population over the 2000-2010 decade resulted in an increase in the ideal district size for a congressional district. Even with the addition of a fourteenth district, the ideal district size climbed from 629,727 for 13 districts (2000 Census) to 691,975 for 14 districts (2010 Census). 47. Figure 9 shows the 2005 Plan, zooming in on the 71-county area

(green boundary) and vicinity.



Figure 9 2005 Plan – 71-County Area Bounded by Green Lines

(1) Population in CDs 1, 8, 10, and 12 under the 2005 Plan

48. As shown in the table in Figure 10 (condensed from Exhibit F-3), CD

1, CD 8, CD 10, and CD 12 under the 2005 Plan were all above the 2010 Census

ideal district size for a 14-district plan.

Figure 10 2005 Benchmark Plan – 2010 Census Deviation Adjusted for 14 Districts

District	Population	Dev	% Dev.	Any Part Black	% Any Part Black	% Any Part Black 18+	% Latino 18+	% NH White 18 +
01	722068	30093	4.35%	190603	26.40%	24.56%	5.46%	68.01%
08	715599	23624	3.41%	256127	35.79%	33.42%	4.05%	60.70%
10	738248	46273	6.69%	149681	20.28%	18.72%	4.90%	73.28%
12	692529	554	0.08%	306384	44.24%	41.50%	3.98%	52.75%

49. CD 1 and CD 12 were entirely contained within the 71-county area under the 2005 Plan. CD 8, in contrast, extended farther north to include parts of the Atlanta MSA (109,987 persons, 34,83% Black) in Butts, Jasper, and part of Newton County. CD 10 encompassed all of the Athens MSA (192,541 persons, 20.31% Black) and extended much farther north to the mountain counties of Rabun and Towns on the North Carolina boundary.

(2) Population in CD 2 under the 2005 Plan

50. The population in CD 2 in southwest Georgia was virtually unchanged over the decade – 629,727 in 2000 and 631,273 in 2010 (see **Exhibit F-3**).

Therefore, CD 2 was underpopulated by 60,002 persons. On the other hand, CD 3

under the 2005 plan (anchored in the fast-growing Atlanta MSA, but adjacent to CD

2 in Muscogee County) was overpopulated by 125,272 (see Exhibit F-2).

51. As shown in the **Exhibit F-4**, which details counties that were split under the 2005 Plan, CD 3 contained a 2010 population base of 80,467 in Muscogee County. Thus, Muscogee County was one area where much of the 2010 population deficit in CD 2 could have been eliminated by shifting additional precincts from overpopulated CD 3 into CD 2.

B. 2011 Plan

(1) Changes to CD 2 under the 2011 Plan

52. Some Muscogee County precincts previously assigned to CD 3 were shifted into CD 2 in the 2011 Plan. But in the 2011 Plan, CD 2 veers east to add 112,650 persons (63.55% Black) from Bibb County, which was wholly contained in CD 8 under the 2005 Plan.
53. This eastward extension of CD 2 into Bibb County made it

53. This eastward extension of CD 2 into Bibb County made it geographically difficult to create a majority-Black district in central and southeast Georgia without extending part of the district into the Atlanta MSA.

54. Exhibit G-1 is a statewide map depicting the 2011 Plan. Exhibit G-2 presents 2010 population statistics for all districts in the 2011 Plan. Exhibit G-3 identifies the 16 counties that are split under the 2011 Plan. Exhibit G-4 contains detailed maps (showing town and city boundaries) for each of the six districts that are modified in the illustrative plans discussed in the next Section of this report.

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Exhibit G-5 reports active registered voters for all districts by race (reported by the Georgia Secretary of State ("SOS") as of November 1, 2018.

55. The Google map available at the link below is an address-searchable map of the 2011 Plan, with an overlay of the 13-district 2005 Plan (depicted with thick blue lines). Gray lines show county boundaries. Click anywhere on the map to identify the county name and 2010 population. Click balloon markers to identify the district number.

http://www.fairdata2000.com/Fusion/GA_Congress_2011_Plan/

56. **Figure 11** (next page) shows the 2011 Plan, zooming in on the 71county area and vicinity. Thick light blue lines delineate the 2005 Plan districts.

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Figure 11 2011 Plan – 2005 Plan Overlay

The table in Figure 12 (condensed from Exhibits G-2 and G-5), 57.

presents summary statistics for CD 1, CD 8, CD 10, and CD 12 under the 2011 Plan.

District	% AP Black	% AP Black 18+	% NH White 18+	% NH Black Active Registered (Nov. 2018)	% NH White Active Registered (Nov 2018)
001	31.24%	28.95%	63.69%	30.47%	64.64%
008	30.41%	28.53%	64.65%	30.27%	65.82%
010	25.72%	24.12%	69.27%	24.29%	70.77%
012	35.48%	33.30%	59.91%	35.08%	60.67%
to CD 1	2 under	the 2011	Plan	310004	

Figure 12 **2011 Plan Summary Statistics**

(2) Changes to CD 12 under the 2011 Plan

The 2011 Plan reduced the BVAP by over 8 percentage points – from 58. 41.50% BVAP in the 2005 Plan to 33.30% in the 2011 Plan.

The table in Figure 13 details the county shifts, transforming CD 12 59.

under the 2005 Plan into CD 12 under the 2011 Plan.

From 2005 CD 12	To 2011 CD	Pop.	AP Black	% AP Black
CHATHAM	01	185361	94606	51.04%
EFFINGHAM (Part)	01	30877	3560	14.27%
JEFFERSON	10	16930	9303	54.95%
GLASCOCK	10	3082	265	8.60%
BALDWIN	10	40201	17014	42.32%
HANCOCK	10	9429	7018	74.43%
WASHINGTON	10	21187	11323	53.44%
JOHNSON	10	9980	3531	35.38%
TALIAFERRO	10	1717	1043	60.75%
WARREN	10	5834	3624	62.12%
From Subtotal		324598	151287	46.61%

Figure 13 CD 12 Changes -- 2005 Plan to 2011 Plan

To 2011 CD 12	From 2005 CD	Pop.	AP Black	% AP Black
APPLING	01	18236	3483	19.10%
COFFEE	01	42356	11594	27.37%
COLUMBIA	10	108725	17370	15.98%
JEFF DAVIS	01	15068	2302	15.28%
LAURENS	08	48434	17654	36.45%
RICHMOND	10	83804	35340	42.17%
WHEELER	01	7421	2647	35.67%
To Subtotal		324044	90390	27.89%

60. Chatham County was removed altogether from CD 12 – shifting 185,361 persons (51.04% BVAP) from CD 12 to CD 1. At the same time, the predominantly white population of 108,725 (15.98% Black) in Columbia County was shifted from CD 10 into CD 12.

61. The 2011 Plan also shifted eight rural counties between Macon and Augusta from CD 12 under the 2005 Plan into CD 10 under the 2011 Plan.¹⁰ The combined population in this area shifted from CD 12 into CD 10 is 108,360 (49.02% Black). At the same time, four rural counties south and west of Savannah were shifted from CD 1 under the 2005 Plan into CD 12 under the 2011 Plan.¹¹ In addition a fifth county, Laurens, was shifted from CD 8 into CD 12. The combined population in these five counties is 131,515 (28.65% Black).

¹⁰ North to south, the eight counties are: Taliaferro, Warren, Glascock, Hancock, Baldwin (2005 CD 12 portion), Washington, Jefferson, and Johnson.

¹¹ North to south, the four counties are: Wheeler, Jeff Davis, Coffee, and Appling.

62. In sum, although CD 12 and its adjacent districts were each above the ideal population size according to the 2010 Census (see **Figure 10** *supra*), 324,598 persons (46.61% Black) were shifted out of CD 12 and replaced with 324,044 persons (27.89% Black). (See subtotals in **Figure 13**.) As noted, the net effect of the various population exchanges cut the BVAP in CD 12 from 41.50% under the 2005 Plan to 33.30% under the 2011 Plan.

IV. PLAINTIFFS' ILLUSTRATIVE PLANS

63. This section presents two illustrative plans. Both plans comply with traditional redistricting principles, including one-person one-vote, compactness, contiguity, respect for communities of interest, and the non-dilution of minority voting strength. The plans avoid 2018 incumbent conflicts, i.e. no incumbents are paired in the same district.¹² The plans have the following features:

- Both plans create a new majority-Black District 12 that joins African American communities in Macon, Augusta, and Savannah.
- Under both plans, all of Augusta-Richmond County is in District 12. Chatham County is split in the same fashion under both plans, with a little over half of the county's population in District 1 (53.18%) and the remainder in District 12.
- Unlike District 12 in Illustrative Plan 1, District 12 in Illustrative Plan 2 does not extend north across I-20 to include tiny Taliaferro County (pop. 1,717). To compensate for the exclusion of Taliaferro, Illustrative Plan 2's District 12 adds population from Bibb County. Under both illustrative

¹² I determined incumbent residences to the best of my knowledge based on publicly available information. It is my understanding that the Defendant in this case has refused to provide those addresses in the course of discovery.

plans, District 12 accounts for roughly 42.5% of the population in Bibb County.

- The plans modify six districts under the 2011 Plan CD 1, CD 2, CD 3, CD 8, CD 10, and CD 12. No changes are necessary in the other eight districts.
- Illustrative Plan 1 splits 17 counties one more than under the 2011 Plan. Illustrative Plan 2 splits 18 counties.
- Both plans eliminate the three-district split (CD 3, CD 10, and CD 13) in Henry County that occurred under the 2011 Plan. Henry County is split between two districts – 10 and 13 – under the illustrative plans.
- There are 22 unique county-district combinations under Illustrative Plan 1 and 23 under Illustrative Plan 2, compared to 22 unique combinations under the 2011 Plan.
- Under both illustrative plans, District 12 stays within the historical boundaries of CD 1, CD 8, and CD 12 under the benchmark 2005 Plan.

A. Illustrative Plan 1

64. Figure 14 (next page) shows illustrative Plan 1, zooming in on the 71-

county area and vicinity. Thick dark blue lines show the 2011 Plan boundaries.

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Figure 14 Illustrative Plan 2 – 2011 Plan Overlay

65. The exhibits in the Exhibit H series (Illustrative Plan 1) are identical

in format to the Exhibit G series (2011 Plan) in order to facilitate comparisons.¹³

¹³ Exhibit H-1 is a statewide map depicting Illustrative Plan 1. Exhibit H-2 presents 2010 summary population statistics for all districts in Illustrative Plan 1. Exhibit H-3 identifies the 17 counties that are split under Illustrative Plan 1. Exhibit H-4 contains detailed maps (showing town and city boundaries) for each of the six modified districts. Exhibit H-5 reports active registered voters for all districts by race.

66. The table in Figure 15 (condensed from Exhibits H-2 and H-5),

presents summary statistics for CD 1, CD 8, CD 10, and CD 12 in Illustrative Plan

1.

67. District 12 has a 2010 BVAP of 50.32%, and 55.4% NH Black

registered voters in December 2017.14

District	% AP Black	% AP Black 18+	% NH White 18+	% NH Black Active Registered (Dec. 2017)	% NH White Active Registered (Dec. 2017)
001	24.51%	22.74%	69.65%	22.7%	73.2%
008	26.64%	25.03%	67.52%	26.1%	70.4%
010	21.67%	19.86%	72.03%	22.3%	72.1%
012	53.85%	50.32%	44.95%	55.4%	42.1%

Figure 15 Illustrative Plan 1– Summary Statistics

68. The Google map available at the link below is an address-searchable map of Illustrative Plan 1, zooming in on District 12. Gray lines show county boundaries. Click anywhere on the map for county-level demographics. Click balloon markers for district number.

¹⁴ I do not have access to a shapefile depicting current 2018 precincts. Therefore, I cannot precisely match the 2016 precinct geography with Nov. 1, 2018 registered voters, as reported by the Secretary of State. There have been precinct changes since 2016 in some of the counties encompassed by the districts modified in the illustrative plans.

For registered voter statistics in the six districts that are modified under the illustrative plans, I have relied on a statewide registered voter file (December 2017). As a check, I compared the geocoded registered voter rates with the Nov. 1, 2018 SOS registration statistics. The geocoded registered voter rates are about the same. For example, the SOS reports that on Nov. 1, 2018, NH Black voters represented 35.06% of all active registered voters in current CD 12. The geocode method yields a 34.90% NH Black registration rate in CD 12.

http://www.fairdata2000.com/Fusion/GA_Congress_Illustrative_Plan_1/

B. Illustrative Plan 2

69. **Figure 16** (next page) shows Illustrative Plan 2, zooming in on the 71county area and vicinity. Thick blue lines show the 2011 Plan boundaries.

70. The exhibits in the **Exhibit I** series (Illustrative Plan 2) are identical in format to the **Exhibit G** series (2011 Plan) and the **Exhibit H** series (Illustrative Plan 1) in order to facilitate comparisons.¹⁵

[Remainder of page intentionally left blank] .dy

¹⁵ Exhibit I-1 is a statewide map depicting Illustrative Plan 1. Exhibit I-2 presents 2010 summary population statistics for all districts in Illustrative Plan 1. Exhibit I-3 identifies the 17 counties that are split under Illustrative Plan 1. Exhibit I-4 contains detailed maps (showing town and city boundaries) for each of the six modified districts. Exhibit I-5 reports active registered voters for all districts by race.



Figure 16 Illustrative Plan 2 – 2011 Plan Overlay

71. On the next page, the table in **Figure 17** (condensed from **Exhibit I-2** and **I-5**), presents summary statistics for CD 1, CD 8, CD 10, and CD 12 under Illustrative Plan 2.

District	% AP Black	% AP Black 18+	% NH White 18+	% NH Black Active Registered (Dec. 2017)	% NH White Active Registered (Dec 2017)		
001	24.50%	22.74%	69.65%	22.68%	73.23%		
008	26.57%	24.97%	67.67%	25.98%	70.55%		
010	21.67%	19.86%	72.03%	20.07%	74.92%		
012	53.78%	50.26%	45.01%	55.27%	42.18%		

Figure 17 Illustrative Plan 2

72. District 12 has a 2010 BVAP of 50.26%, and 55.27% NH Black registered voters in December 2017.

73. The Google map available at the link below is an address-searchable map of Illustrative Plan 2, zooming in on District 12. The map has the same style as the Illustrative Plan 1 map.

http://www.fairdata2000.com/Fusion/GA_Congress_Illustrative_Plan_2/

C. Supplemental Plan Information

74. The districts in the two illustrative plans are reasonably shaped and compact. **Exhibits J-1** (Illustrative Plan 1), **J-2** (Illustrative Plan 2), **J-3** (2005 Plan), and **J-4** (2011 Plan) contain compactness scores generated by Maptitude for all districts.

75. The table in Figure 18 (condensed from the Exhibit J series) reports

Reock¹⁶ and Polsby-Popper¹⁷ scores for the two illustrative plans, alongside scores for the 2005 Plan and the 2011 Plan.

	Reock		Reock		opper
	Mean	Low		Mean	Low
Illustrative Plan 1	.44	.33		.24	.14
Illustrative Plan 1 – CD 12	.35	NA		.16	NA
Illustrative Plan 2	.44	.34		.25	.15
Illustrative Plan 2 – CD 12	.34	NA	OL	.17	NA
			X.		
2005 Plan	.45	.28		.25	.12
2005 Plan – CD 12	.42	NA		.20	NA
	A				
2011 Plan	45	.33		.26	.16
2011 Plan – CD 12	CM .41	NA		.18	NA

Figure 18	
Compactness Scores – Illustrative Plans vs 2005 and 2011 Plans	5

76. As shown in **Figure 18**, District 12 under the two illustrative plans

scores slightly less compact than CD 12 under the 2005 Plan and the 2011 Plan.

¹⁶ "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." *Maptitude For Redistricting* software documentation (authored by the Caliper Corporation).

¹⁷ 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. *Maptitude For Redistricting* software documentation (authored by the Caliper Corporation).

Overall, across all districts, the illustrative plans score about the same as the 2005

Plan and 2011 Plan.

77. The table in **Figure 19** summarizes county and 2016 VTD¹⁸ splits

under the two illustrative plans, the 2005 Plan, and the 2011 Plan.

	County Splits		2016 VTD Splits (Populated)
Illustrative Plan 1	17	Ċ	38
Illustrative Plan 1 – CD 12	3	, C	3
		office and the second s	
Illustrative Plan 2	18	0	39
Illustrative Plan 2 – CD 12	23		5
	NOC N		
2005 Plan	20		NA
2005 Plan – CD 12	4		NA
- Children			
2011 Plan	16		38
2011 Plan – C& 12	2		5

Figure 19 County and VTD Splits – Illustrative Plans vs 2005 and 2011 Plans

78. The illustrative plans split fewer counties than the 2005 Plan (20 splits).

The 2011 Plan contains 16 county splits, compared to 17 in Illustrative Plan 1 and

¹⁸ "VTD" is a Census Bureau term meaning "voting tabulation district." VTDs generally correspond to precincts. Statewide, there are 2,697 2016 VTDs.

The 2016 VTD shapefile that I relied upon was prepared by the Georgia Legislative and Congressional Reapportionment Office and is available for download via: http://www.legis.ga.gov/Joint/reapportionment/en-US/default.aspx

18 in Illustrative Plan 2. However, as noted *supra*, with the elimination of the threeway split in Henry County, Illustrative Plan 1 has the same number of discrete splits (22), i.e. unique county-district combinations, as the 2011 Plan. Illustrative Plan 2 adds just one more discrete split (23).

79. There is virtually no difference between the illustrative plans and the 2011 Plan in terms of the total number of split VTDs. Illustrative Plan 1 splits just three VTDs in District 12, compared to five VTD splits for District 12 under both Illustrative Plan 2 and the 2011 Plan.

V. POST-2020 CENSUS DATA

80. Georgia and the 71-county area have experienced continued population growth since the release of the 2010 Census. The table in **Figure 20** (next page) shows 2017 population estimates for Georgia and the 71-county area, according to the Census Bureau, with percentages by race and ethnicity for 2017 and 2010.

	Georgia			71-County Area			
	2017 Estimate	2017 Percent	2010 Percent	2017 Estimate	2017 Percent	2010 Percent	
Total Population	10,429,379	100.0%	100.00%	2,486,131	100.00%	100.00%	
NH White*	5,507,334	52.81%	55.88%	1,396,032	56.15%	58.11%	
Total Minority Pop.	4,922,045	47.19%	44.12%	1,090,099	43.85%	41.89%	
Latino	1,005,959	9.65%	8.81%	155622	6.26%	5.24%	
NH Black*	3,267,577	31.33%	30.05%	838,360	33.72%	33.34%	
SR Black (Single-race Black)	3,361,924	32.24%	30.46%	855,924	34.43%	33.65%	
AP Black (Any Part Black)	3,495,258	33.51%	31.53%	886,547	35.66%	34.63%	
NH Any Part Black	3,381,501	32.42%	30.94%	865,165	34.80%	34.19%	

Figure 20 2017 Estimates and 2010 Population by Race and Ethnicity

* Single-race, non-Hispanic.

81. Figure 20 indicates a two percentage point increase (from 31.53% to 33.51%) in statewide percent AP Black since 2010 and a one percentage point increase in the 71-county area (from 34.63% to 35.66%). By contrast, the NH White percentage has dropped in both instances – by 3 percentage points statewide (from 55.88% to 52.81%) and by 2 percentage points in the 71-county area (from 58.11% to 56.15%).

82. The 71-county population is estimated to have grown by 3.79% since 2010 (from 2.40 million to 2.49 million) – albeit at a slower pace than the state as a whole, which is estimated to have grown by 7.66% since 2010 (from 9.69 million to 10.43 million).

VI. SOCIOECONOMIC PROFILES – STATEWIDE AND REGIONAL

A. Socioeconomic Disparities: CD 12

Whites in central and southeast Georgia outpace African Americans 83.

across a broad range of socioeconomic measures, as reported in the 1-year 2017

ACS.19

84. As an illustrative example, the socioeconomic disparities among Whites

and Blacks in CD 12 is summarized below and depicted further in charts and tables

found in **Exhibits K-1** and **K-2**. For additional socioeconomic data on other

congressional districts, see Exhibits L-1 and L-2 (CD 1), Exhibits M-1 and M-2

(CD 8), and Exhibits N-1 and N-2 (CD 10).

- The poverty rate for Whites in CD 12 stands at 14.3%. Blacks experience a poverty rate (26.2%) that is nearly twice that of Whites. (Exhibit K-1 at p. 22 and Exhibit K-2 at p. 7)
- The child poverty rate for Whites is 15.9%, compared to 38.7% for Black children. (Exhibit K-1 at p. 22 and Exhibit K-2 at p. 7)
- White median household income is \$50,324 about two-thirds higher than Black median household income (\$34,492). (Exhibit K-1 at p. 14 and Exhibit K-2 at p.6)
- Per capita income disparities in CD 12 track the disparities seen in median household income. At \$26,835, White per capita incme is about two-thirds

¹⁹ In this section, "Black or African American" refers to NH Any Part Black. There is not a separate category for AP Black in the S202 data tables published by the Census Bureau for the 2017 ACS. "White" refers to non-Hispanic White.

higher than Black per capita income (\$16,839) (Exhibit K-1 at p. 17 and Exhibit K-2 at p. 7)

• Just 11.2% of White households rely on food stamps, compared to 27.8% of Black households (Exhibit K-1 at p. 15 and Exhibit K- at p. 11)

(2) Education

- Of persons 25 years of age and over, 11.5% of Whites have not finished high school. By contrast, 20.0 % of Blacks are without a high school diploma. (Exhibit K-1 at p. 5 and Exhibit K-2 at p. 3)
- At the other end of the educational scale, for ages 25 and over, 25.2% of Whites have a bachelor's degree or higher, compared o 15.0% of Blacks. (Exhibit K-1 at p. 5 and Exhibit K-2 at p. 3)

(3) Employment

- 1DOCKET • The White unemployment rate (for the population over 16, expressed as a percentage of the civilian labor force) is 4.9% – less than half the 11.1% Black unemployment rate. (Exhibit K-1 at p. 11 and Exhibit K-2 at p. 5)
- Of employed Whites, 37.7% are in management or professional occupations, compared to 26.4% of Blacks. (Exhibit K-1 at p. 13 an Exhibit K-2 at p. 5)

(4) Housing

- Over two-thirds (70.8%) of White householders in CD 12 are homeowners. Half of Black households (50.1%) are owner-occupied. (Exhibit K-1 at p. 16 and Exhibit K-2 at p. 7)
- Just 4.6% of White households are without a vehicle, compared to 12.2% of Black households. (Exhibit K-1 at p. 23 and Exhibit -2 at p. 8)
- Median home value for White homeowners is \$130,000 about one-third higher than the median home value for Blacks (\$97,000. (Exhibit K-1 at p. 25 and Exhibit K-2 at p. 8)

B. Socioeconomic Disparities: Statewide

85. The 2017 ACS also reveals that from a statewide perspective African

Americans, as well as other minorities, trail Whites in terms of socioeconomic well-

being.

86. Exhibits O-1 and O-2 contain state-level data in charts and tables. The

statewide disparities are summarized below.

(1) Income

- The poverty rate for Whites in Georgia is 9.8%. Blacks experience a poverty rate (21.5%) that is more than twice that of Whites. (Exhibit O-1 at p. 5 and Exhibit O-2 at p. 7)
- The child poverty rate for Whites is 10.7%, compared to 30.3% for Black children. (Exhibit O-1 at p. 5 and Exhibit O-2 at p. 7)
- White median household income is \$65,420 53.1% higher than Black median household income (\$42,727). (Exhibit O-1 at p. 8 and Exhibit O-2 at p.6)
- At \$36,578, White per capita income in Georgia is 58.9% higher than Black per capita income (\$21,542). (Exhibit O-1 at p. 10 and Exhibit O-2 at p. 7)
- Just 7.4% of White households rely on food stamps, compared to 22.4% of Black households. (Exhibit O-1 at p. 15 and Exhibit O-2 at p. 11)

(2) Education

- Of persons 25 years of age and over, 9.1% of Whites have not finished high school. By contrast, 13.6 % of Blacks are without a high school diploma. (Exhibit O-1 at p. 12 and Exhibit O-2 at p. 3)
- At the other end of the educational scale, for ages 25 and over, 35.0% of Whites have a bachelor's degree or higher, compared to 23.5% of Blacks

with a bachelor's degree or higher. (Exhibit O-1 at p. 12 and Exhibit O-2 at p. 3)

(3) Employment

- The White unemployment rate (for the population over 16, expressed as a percent of the civilian labor force) is 4.3% less than half the 8.9% Black unemployment rate. (Exhibit O-1 at p. 14 and Exhibit O-2 at p. 5)
- Of employed Whites, 43.2% are in management or professional occupations, compared to 30.6% of Blacks. (Exhibit O-1 at p. 15 and Exhibit O-2 at p. 5)

(4) Housing

- Nearly three-fourths (73.6%) of White householders in Georgia are homeowners. Less than half of Black householders (46.7%) are homeowners. (Exhibit O-1 at p. 16 and Exhibit O-2 at p. 7)
- Just 4.3% of White households lack access to a vehicle, compared to 11% of Black households. (Exhibit O-1 at p. 17 and Exhibit O-2 at p. 8)
- Median home value for White homeowners is \$190,300, compared to median home values of \$141,200 for African Americans. (Exhibit O-1 at p. 20 and Exhibit O-2 at p. 8)

###

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 3, 2018

WILLIAM S. COOPER

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 2018, 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, 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 eight states (Alabama, Connecticut, Florida, Georgia, Kentucky, 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).

In March 2011, I was retained by the Sussex County, Virginia Board of

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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*). 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 2017, a federal court ruled in favor of the plaintiffs in a Section 2 case regarding the 32nd Judicial District in Louisiana, based in part on my *Gingles* 1 testimony in *Terrebonne Parish Branch NAACP et al. v. Jindal et al* (MJD La. August 17, 2017).

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.

I currently serve as a redistricting consultant and expert to the City of Decatur, Alabama (Voketz v. City of Decatur) and to the State of Maryland (*Benisek v. Lamone*).

I am currently a redistricting consultant and expert for the plaintiffs in eleven voting cases –*Navajo Nation v. San Juan County, Utah; Terrebonne Parish Branch NAACP et al. v. Jindal et al.; Missouri State Conference NAACP et al. v. Ferguson-Florissant School District; NAACP v. Gwinnett County, Georgia; Alabama State Conference NAACP et al. v. Alabama; Georgia State Conference NAACP et al v. Georgia; NAACP v. East Ramapo Central School District; Ohio A. Philip Randolph Institute, et al. v. Ryan; Thomas v. Bryant; and Jayla Allen et al. v. Waller County, Texas.*

Since 2011, I have served as a redistricting and demographic consultant to the Massachusetts-based Prison Policy Initiative and to Demos 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 with these two organizations.

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

I also serve as an expert consultant to the NAACP LDF in another Alabama desegregation case (*Ellison, et al. v. Madison County Board of Education, et al.* (5:63-cv-00613).

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 schoolage 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.

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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, I prepared draft election plans involving about 300 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 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 Cortez-Montezuma 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

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most of these cases.

Alabama

Alabama Legislative Black Caucus et al. v. Alabama et al. (2013) Alabama State Conference of the NAACP v. Alabama (2018)

Colorado

Cuthair v. Montezuma-Cortez School Board (1997)

Georgia

Cofield v. City of LaGrange (1996) Love v. Deal (1995) Askew v. City of Rome (1995) Woodard v. Lumber City (1989)

Louisiana

20M DEMOGRACYDOCKET.COM Knight v. McKeithen (1994) Reno v. Bossier Parish (1995) Wilson v. Town of St. Francisville (1996) *Terrebonne Parish NAACP v. Jindal, et al. (2017)*

Maryland

Cane v. Worcester County (1994)

Mississippi

Addy v Newton County (1995) Boddie v. Cleveland (2003) Boddie v. Cleveland School District (2010) *Ewing v. Monroe County*(1995) Fairley v. Hattiesburg (2014) Fairley v. Hattiesburg (2008) Jamison v. City of Tupelo (2006) Gunn v. Chickasaw County (1995) NAACP v. Fordice (1999) Nichols v. Okolona (1995) Smith v. Clark (2002) Thomas v. Bryant (2018)

Montana

Old Person v. Cooney (1998) Old Person v. Brown (on remand) (2001)

Missouri

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

Nebraska

Stabler v. Thurston County (1995)

New York

Arbor Hills Concerned Citizens v. Albany County (2003) Pope v. County of Albany (2015)

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)

Virginia

Henderson v. Richmond County (1988) McDaniel v. Mehfoud (1988) White v. Daniel (1989) Smith v. Brunswick County (1991)

Wyoming

Large v. Fremont County (2007)

In addition, I have filed expert declarations or been deposed in the following

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cases that did not require trial testimony. The dates listed indicate the deposition date or

date of last declaration or supplemental declaration:

Alabama

Voketz v. City of Decatur (2014)

Florida

Calvin v. Jefferson County (2016) Thompson v. Glades County (2001) Johnson v. DeSoto County (1999) Burton v. City of Belle Glade (1997)

Georgia

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) Jones v. Cook County (1993)

Kentucky

Herbert v. Kentucky State Board of Elections (2013)

Louisiana

NAACP v. St. Landry Parish Council (2005) Rodney v. McKeithen (1993) Prejean v. Foster (1998)

Maryland

Fletcher v. Lamone (2011) Benisek v. Lamone (2017)

Mississippi

Partee v. Coahoma County (2015) Figgs v. Quitman County (2015) West v. Natchez (2015) Williams v. Bolivar County (2005) Clark v. Calhoun County (on remand)(1993) Houston v. Lafayette County (2002) Wilson v. Clarksdale (1992) Stanfield v. Lee County(1991) Teague v. Attala County (on remand)(1993T) Thomas v. Bryant (2018)

Montana

Alden v. Rosebud County (2000)

New York

NAACP v. East Ramapo Central School District (2018)

North Carolina

Lewis v. Alamance County (1991) Gause v. Brunswick County (1992) Webster v. Person County (1992)

Ohio

Ohio A. Philip Randolph Institute, et al. v. Ryan (2018)

Rhode Island *Davidson v. City of Cranston (2015)*

South Carolina Vander Linden v. Campbell (1996)

South Dakota Emery v. Hunt (1999)

Kirkie v. Buffalo County (2004

Tennessee

NAACP v. Frost, et al. (2003)

Texas

Jayla Allen et al. v. Waller County (2018)

Utah

Navajo Nation v. San Juan County (2018)

Virginia Moon v. Beyer (1990)

Washington

Montes v. City of Yakima (2014 Glatt v. City of Pasco (2016)

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Methodology and Sources

 In the preparation of this declaration, I analyzed population and geographic data from the 2000 to 2010 decennial Censuses, as well as 2017 U.S. Census Bureau ("Census Bureau") population estimates. I also reviewed and used data from the American Community Survey ("ACS") conducted by the Census Bureau – specifically, the 5-year 2012-2016 ACS and the 1-year 2017 ACS.

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 2000, 2010, and 2017 TIGER (Topologically Integrated Geographic Encoding and Referencing) files.

4. I used population data from the U. S. Census 2000 and 2010 PL 94-171 data files. 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, legislative

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districts, census tracts, census block groups, precincts (called voting districts or "VTDs" by the Census Bureau) and census blocks.

5. 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.

6. I obtained GIS shapefiles depicting 2010, and 2016 VTDs for Georgia from the Georgia Legislative and Congressional Reapportionment Office via the links below:

2016: <u>http://www.legis.ga.gov/Joint/reapportionment/Documents/VTD2016-Shape.zip</u> 2010: <u>www.legis.ga.gov/Joint/reapportionment/Documents/VTD2010-Shape.zip</u>

7. I also obtained GIS shapefiles of the 2005 and 2011 U.S. House plans from the Georgia Legislative and Congressional Reapportionment Office via the links below:

http://www.legis.ga.gov/Joint/reapportionment/en-US/default.aspx

8. I also reference voter registration by race and ethnicity statistics reported by the Georgia Secretary of State, available at the link below.

http://sos.ga.gov/index.php/Elections/voter_registration_statistics

9. In order to estimate the percentage of active voters by race by district for the illustrative plans, I geocoded a December 2017 registered voter file

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(generated by the Georgia Secretary of State). I used Maptitude to geocode the voter addresses and assign the address points to census blocks.

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County	MSA	Population	SR Black	Latino	NH White	% NH White	NH Black	NH Asian	AP Black	% AP Black
APPLING		18236	3392	1704	12854	70.49%	3360	125	3483	19.10%
ATKINSON		8375	1453	2039	4776	57.03%	1428	17	1500	17.91%
BACON		11096	1704	791	8431	75.98%	1696	34	1788	16.11%
BAKER	Albany MSA	3451	1613	145	1642	47.58%	1600	24	1637	47.44%
BALDWIN		45720	18965	919	24704	54.03%	18866	580	19285	42.18%
BANKS		18395	427	1041	16526	89.84%	416	165	486	2.64%
BARROW	Atlanta MSA	69367	7889	6037	51736	74.58%	7769	2359	8620	12.43%
BARTOW	Atlanta MSA	100157	10178	7690	79803	79.68%	10024	705	11030	11.01%
BEN HILL		17634	6104	1026	10164	57.64%	6087	120	6217	35.26%
BERRIEN		19286	2063	885	16050	83.22%	2040	82	2145	11.12%
BIBB	Macon MSA	155547	81116	4389	65494	42.11%	80744	2492	82471	53.02%
BLECKLEY		13063	3564	301	9000	68.90%	3533	109	3633	27.81%
BRANTLEY	Brunswick MSA	18411	538	343	17198	93.41%	531	37	603	3.28%
BROOKS	Valdosta MSA	16243	5729	853	9425	58.02%	5695	51	5794	35.67%
BRYAN	Savannah MSA	30233	4286	1336	23446	77.55%	4210	473	4626	15.30%
BULLOCH		70217	19409	2439	46251	65.87%	19252	1013	20006	28.49%
BURKE	Augusta MSA	23316	11533	617	10844	46.51%	11469	68	11712	50.23%
BUTTS	Atlanta MSA	23655	5469	597	16200	68.48%	6431	100	6617	27.97%
CALHOUN		6694	4105	262	2250	33.61%	4092	30	4149	61.98%
CAMDEN		50513	9799	2590	35977	71.22%	9621	706	10564	20.91%
CANDLER		10998	2683	1227	6949	63.18%	2669	57	2731	24.83%
CARROLL	Atlanta MSA	110527	20089	6800	80531	72.86%	19862	836	21569	19.51%
CATOOSA	Chattanooga, TN-GA	63942	1392	1469	59149	92.50%	1356	762	1793	2.80%
CHARLTON		12171	3464	310	8116	66.68%	3443	76	3562	29.27%
CHATHAM	Savannah MSA	265128	106392	14370	133492	50.35%	105274	6229	109428	41.27%
CHATTAHOOCH	Columbus MSA	11267	2123	1398	7089	62.92%	2047	231	2308	20.48%
CHATTOOGA		26015	2899	1043	21589	82.99%	2886	108	3091	11.88%
CHEROKEE	Atlanta MSA	214346	12117	20566	174243	81.29%	11633	3484	13870	6.47%
CLARKE	Athens-Clarke County MSA	116714	30988	12192	66674	57.13%	30695	4811	32083	27.49%
CLAY		3183	1923	26	1188	37.32%	1920	10	1945	61.11%
CLAYTON	Atlanta MSA	259,424	171,480	35,447	36,610	14.11%	169,020	12,839	175,977	67.83%
CLINCH		6,798	1,886	236	4,536	66.73%	1,876	13	1,939	28.52%
COBB	Atlanta MSA	688,078	171,774	84,330	387,438	56.31%	168,053	30,432	180,965	26.30%

County	MSA	Population	SR Black	Latino	NH White	% NH White	NH Black	NH Asian	AP Black	% AP Black
COFFEE		42,356	11,283	4,352	25,907	61.16%	11,227	302	11,594	27.37%
COLQUITT		45,498	10,210	7,763	26,759	58.81%	10,143	289	10,467	23.01%
COLUMBIA	Augusta MSA	124,053	18,439	6,175	91,517	73.77%	18,084	4,726	19,881	16.03%
СООК		17,212	4,704	1,024	11,171	64.90%	4,684	113	4,793	27.85%
COWETA	Atlanta MSA	127,317	22,029	8,493	92,604	72.73%	21,744	1,895	23,159	18.19%
CRAWFORD	Macon MSA	12,630	2,818	301	9,282	73.49%	2,806	32	2,903	22.98%
CRISP		23,439	10,079	748	12,216	52.12%	10,033	183	10,230	43.65%
DADE	Chattanooga, TN-GA	16,633	145	292	15,796	94.97%	142	114	188	1.13%
DAWSON	Atlanta MSA	22,330	105	920	20,847	93.36%	97	124	189	0.85%
DECATUR		27,842	11,438	1,404	14,615	52.49%	11,366	138	11,599	41.66%
DEKALB	Atlanta MSA	691,893	375,725	67,824	203,395	29.40%	370,963	35,173	384,553	55.58%
DODGE		21,796	6,504	732	14,273	65.48%	6,451	101	6,628	30.41%
DOOLY		14,918	7,442	862	6,461	43.31%	7,381	93	7,511	50.35%
DOUGHERTY	Albany MSA	94,565	63,470	2,673	27,315	28.88%	63,198	719	64,247	67.94%
DOUGLAS	Atlanta MSA	132,403	52,290	11,125	64,911	49.03%	51,387	1,876	54,253	40.98%
EARLY		11,008	5,462	171	5,250	47.69%	5,441	37	5,510	50.05%
ECHOLS	Valdosta MSA	4,034	171	1,183	2,555	63.34%	163	12	183	4.54%
EFFINGHAM	Savannah MSA	52,250	7,048	1,501	42,311	80.98%	6,982	425	7,457	14.27%
ELBERT		20,166	5,950	967	12,956	64.25%	5,906	121	6,057	30.04%
EMANUEL		22,598	7,562	921	13,733	60.77%	7,541	154	7,668	33.93%
EVANS		11,000	3,205	1,441	6,228	56.62%	3,165	60	3,254	29.58%
FANNIN		23,682	83	431	22,761	96.11%	75	72	115	0.49%
FAYETTE	Atlanta MSA	106,567	21,395	6,760	72,202	67.75%	21,117	4,106	22,498	21.11%
FLOYD	Rome, GA	96,317	13,640	8,987	70,959	73.67%	13,494	1,225	14,431	14.98%
FORSYTH	Atlanta MSA	175,511	4,510	16,550	140,943	80.30%	4,287	10,875	5,305	3.02%
FRANKLIN		22,084	1,850	866	18,913	85.64%	1,821	121	2,037	9.22%
FULTON	Atlanta MSA	920,581	405,575	72,566	376,014	40.85%	400,457	51,304	416,892	45.29%
GILMER		28,292	135	2,677	25,078	88.64%	98	65	212	0.75%
GLASCOCK		3,082	253	33	2,750	89.23%	251	1	265	8.60%
GLYNN	Brunswick MSA	79,626	20,726	5,126	51,602	64.81%	20,525	894	21,465	26.96%
GORDON		55,186	2,005	7,738	44,107	79.92%	1,945	522	2,392	4.33%
GRADY		25,011	7,176	2,500	14,879	59.49%	7,129	94	7,330	29.31%
GREENE		15,994	6,105	893	8,771	54.84%	6,078	54	6,205	38.80%

County	MSA	Population	SR Black	Latino	NH White	% NH White	NH Black	NH Asian	AP Black	% AP Black
GWINNETT	Atlanta MSA	805,321	190,167	162,035	354,316	44.00%	184,122	84,763	201,532	25.03%
HABERSHAM		43,041	1,444	5,333	34,621	80.44%	1,412	955	1,667	3.87%
HALL	Gainesville, GA	179,684	13,279	46,906	114,300	63.61%	12,757	3,181	14,397	8.01%
HANCOCK		9,429	6,983	139	2,212	23.46%	6,959	47	7,018	74.43%
HARALSON	Atlanta MSA	28,780	1,353	318	26,516	92.13%	1,342	139	1,528	5.31%
HARRIS	Columbus MSA	32,024	5,506	872	24,848	77.59%	5,457	280	5,678	17.73%
HART		25,213	4,710	786	19,213	76.20%	4,691	211	4,899	19.43%
HEARD	Atlanta MSA	11,834	1,159	223	10,190	86.11%	1,152	56	1,243	10.50%
HENRY	Atlanta MSA	203,922	75,277	11,813	107,083	\$ 52.51%	74,056	5,902	78,297	38.40%
HOUSTON	Warner Robins MSA	139,900	39,998	8,515	84,703	60.55%	39,535	3,360	41,801	29.88%
IRWIN		9,538	2,472	228	6,719	70.44%	2,459	61	2,515	26.37%
JACKSON		60,485	4,103	3,736	50,695	83.81%	4,050	1,026	4,530	7.49%
JASPER	Atlanta MSA	13,900	3,037	510	10,095	72.63%	3,030	30	3,142	22.60%
JEFF DAVIS		15,068	2,224	1,577	11,056	73.37%	2,212	70	2,302	15.28%
JEFFERSON		16,930	9,213	517	7,015	41.44%	9,187	64	9 <i>,</i> 303	54.95%
JENKINS		8,340	3,380	334	4,508	54.05%	3,353	36	3,441	41.26%
JOHNSON		9,980	3,489	186	6,219	62.31%	3,461	22	3,531	35.38%
JONES	Macon MSA	28,669	7,008	315	20,830	72.66%	6,977	186	7,169	25.01%
LAMAR	Atlanta MSA	18,317	5,650	341	11,943	65.20%	5,621	68	5,831	31.83%
LANIER	Valdosta MSA	10,078	2,390	461	6,899	68.46%	2,367	101	2,502	24.83%
LAURENS		48,434	17,324	1,143	28,920	59.71%	17,268	478	17,654	36.45%
LEE	Albany MSA	28,298	5,268	560	21,453	75.81%	5,239	609	5,431	19.19%
LIBERTY	Hinesville MSA	63,453	26,805	6,159	27,085	42.69%	26,018	1,182	28,651	45.15%
LINCOLN	Augusta MSA	7,996	2,570	98	5,201	65.05%	2,562	32	2,599	32.50%
LONG	Hinesville MSA	14,464	3,647	1,778	8,491	58.70%	3,541	110	3,907	27.01%
LOWNDES	Valdosta MSA	109,233	39,142	5,238	61,234	56.06%	38,815	1,561	40,290	36.88%
LUMPKIN		29,966	340	1,344	27,519	91.83%	310	133	467	1.56%
MCDUFFIE	Augusta MSA	21,875	8,706	475	12,310	56.27%	8,661	74	8,878	40.59%
MCINTOSH	Brunswick MSA	14,333	5,149	227	8,716	60.81%	5,132	45	5,245	36.59%
MACON		14,740	8,933	527	4,961	33.66%	8,902	190	9,019	61.19%
MADISON	Athens-Clarke County MSA	28,120	2,355	1,139	24,106	85.73%	2,320	173	2,498	8.88%
MARION	Columbus MSA	8,742	2,856	570	5,100	58.34%	2,837	77	2,911	33.30%
MERIWETHER	Atlanta MSA	21,992	8,605	347	12,606	57.32%	8,583	141	8,751	39.79%

County	MSA	Population	SR Black	Latino	NH White	% NH White	NH Black	NH Asian	AP Black	% AP Black
MILLER		6,125	1,720	93	4,237	69.18%	1,697	23	1,761	28.75%
MITCHELL		23,498	11,219	1,028	10,894	46.36%	11,185	120	11,329	48.21%
MONROE	Macon MSA	26,424	6,268	535	19,101	72.29%	6,249	209	6,387	24.17%
MONTGOMERY		9,123	2,397	480	6,144	67.35%	2,372	26	2,457	26.93%
MORGAN	Atlanta MSA	17,868	4,208	494	12,814	71.71%	4,199	106	4,319	24.17%
MURRAY	Dalton, GA	39,628	245	5,154	33,666	84.96%	212	110	413	1.04%
MUSCOGEE	Columbus MSA	189,885	86,403	12,110	82,890	43.65%	85,119	4,061	89,897	47.34%
NEWTON	Atlanta MSA	99,958	40,878	4,635	51,995	52.02%	40,371	881	42,267	42.28%
OCONEE	Athens-Clarke County MSA	32,808	1,635	1,436	28,306	86.28%	1,610	1,016	1,776	5.41%
OGLETHORPE	Athens-Clarke County MSA	14,899	2,566	546	11,429	76.71%	2,557	65	2,740	18.39%
PAULDING	Atlanta MSA	142,324	24,321	7,264	106,739	75.00%	23,810	1,237	26,065	18.31%
PEACH	Warner Robins MSA	27,695	12,715	1,890	12,499	45.13%	12,647	222	12,954	46.77%
PICKENS	Atlanta MSA	29,431	312	819	27,802	94.47%	297	118	388	1.32%
PIERCE		18,758	1,666	887	15,860	84.55%	1,646	58	1,763	9.40%
PIKE	Atlanta MSA	17,869	1,837	0 193	15,506	86.78%	1,825	55	1,946	10.89%
POLK		41,475	5,190	4,885	30,492	73.52%	5,150	270	5 <i>,</i> 536	13.35%
PULASKI	Warner Robins MSA	12,010	3,824	465	7,494	62.40%	3,808	103	3,892	32.41%
PUTNAM		21,218	5,522	1,347	14,024	66.09%	5,497	107	5,637	26.57%
QUITMAN		2,513	1,204	34	1,265	50.34%	1,198	2	1,213	48.27%
RABUN		16,276	156	1,301	14,468	88.89%	144	114	216	1.33%
RANDOLPH		7,719	4,769	119	2,781	36.03%	4,747	22	4,809	62.30%
RICHMOND	Augusta MSA	200,549	108,633	8,207	76,236	38.01%	107,365	3,278	111,991	55.84%
ROCKDALE	Atlanta MSA	85,215	39,559	8,063	34,826	40.87%	38,996	1,498	40,736	47.80%
SCHLEY		5,010	1,169	161	3,612	72.10%	1,167	36	1,180	23.55%
SCREVEN		14,593	6,318	180	7,898	54.12%	6,283	56	6,424	44.02%
SEMINOLE		8,729	2,916	204	5,516	63.19%	2,887	33	2,960	33.91%
SPALDING	Atlanta MSA	64,073	21,030	2,451	38,986	60.85%	20,937	567	21,628	33.76%
STEPHENS		26,175	2,845	633	22,006	84.07%	2,821	175	3,140	12.00%
STEWART		6,058	2,864	1,454	1,655	27.32%	2,833	44	2,898	47.84%
SUMTER		32,819	17,001	1,717	13,413	40.87%	16,894	418	17,200	52.41%
TALBOT		6 <i>,</i> 865	4,065	91	2,639	38.44%	4,039	9	4,109	59.85%
TALIAFERRO		1,717	1,024	35	625	36.40%	1,024	8	1,043	60.75%
TATTNALL		25,520	7,465	2,502	15,196	59.55%	7,424	99	7,626	29.88%

County	MSA	Population	SR Black	Latino	NH White	% NH White	NH Black	NH Asian	AP Black	% AP Black
TAYLOR		8,906	3,503	164	5,123	57.52%	3,485	57	3,548	39.84%
TELFAIR		16,500	6,017	2,026	8,429	51.08%	5,830	90	6,134	37.18%
TERRELL	Albany MSA	9,315	5,700	157	3,366	36.14%	5 <i>,</i> 683	29	5,764	61.88%
THOMAS		44,720	16,497	1,275	26,081	58.32%	16,416	306	16,739	37.43%
TIFT		40,118	11,618	4,037	23,555	58.71%	11,549	507	11,875	29.60%
TOOMBS		27,223	6,767	3,055	16,887	62.03%	6,716	199	6,949	25.53%
TOWNS		10,471	41	206	10,102	96.48%	39	43	53	0.51%
TREUTLEN		6,885	2,247	103	4,466	64.87%	2,239	13	2,281	33.13%
TROUP		67,044	22,394	2,170	40,408	60.27%	22,319	1,054	22,972	34.26%
TURNER		8,930	3,712	282	4,820	53.98%	3,697	40	3,745	41.94%
TWIGGS	Macon MSA	9,023	3,724	124	5,059	56.07%	3,703	14	3,785	41.95%
UNION		21,356	99	519	20,345	95.27%	95	75	116	0.54%
UPSON		27,153	7,590	588	18,522	68.21%	7,544	124	7,752	28.55%
WALKER	Chattanooga, TN-GA	68,756	2,829	1,113	63,343	92.13%	2,809	291	3,296	4.79%
WALTON	Atlanta MSA	83,768	13,103	2,683	65,677	78.40%	12,993	947	13,718	16.38%
WARE		36,312	10,721	1,207	23,583	64.95%	10,662	278	11,010	30.32%
WARREN		5,834	3,602	54	2,133	36.56%	3,584	21	3,624	62.12%
WASHINGTON		21,187	11,173	407	9,339	44.08%	11,124	104	11,323	53.44%
WAYNE		30,099	5,996	1,719	21,749	72.26%	5,928	160	6,298	20.92%
WEBSTER		2,799	1,185	98	1,492	53.30%	1,177	7	1,201	42.91%
WHEELER		7,421	2,614	356	4,405	59.36%	2,582	16	2,647	35.67%
WHITE		27,144	457	647	25,453	93.77%	454	124	568	2.09%
WHITFIELD	Dalton, GA	102,599	3,845	32,471	63,818	62.20%	3,631	1,292	4,519	4.40%
WILCOX		9,255	3,252	338	5,544	59.90%	3,233	41	3,305	35.71%
WILKES		10,593	4,535	361	5,495	51.87%	4,516	48	4,640	43.80%
WILKINSON		9,563	3,672	214	5,529	57.82%	3,664	31	3,720	38.90%
WORTH	Albany MSA	21,679	5,978	335	15,044	69.39%	5,951	74	6,091	28.10%
Statewide		9,687,653	2,950,435	853,689	5,413,920	55.88%	2,910,800	311,692	3,054,098	31.53%

	MSA	Population	SR Black	Latino	NH White	% NH White	NH Black	NH Asian	AP Black	% AP Black
	Albany MSA	157308	82029	3270	68820	43.75%	81671	1455	83170	52.87%
	Athens-Clarke County MSA	192541	37544	15313	130515	67.79%	37182	6065	39097	20.31%
	Atlanta MSA	5286728	1712121	547894	2684571	50.78%	1684178	252616	1776888	33.61%
	Augusta MSA	377789	149881	15572	196108	51.91%	148141	8178	155061	41.04%
	Brunswick MSA	112370	26413	5696	77516	68.98%	26188	976	27313	24.31%
_	Chattanooga, TN-GA	149331	4366	2874	138288	92.61%	4307	1167	5277	3.53%
	Columbus MSA	241918	96888	14950	119927	49.57%	95460	4649	100794	41.66%
	Dalton, GA	142227	4090	37625	97484	68.54%	3843	1402	4932	3.47%
_	Gainesville, GA	179684	13279	46906	114300	63.61%	12757	3181	14397	8.01%
	Hinesville MSA	77917	30452	7937	35576	45.66%	29559	1292	32558	41.79%
	Macon MSA	232293	100934	5664	119766	51.56%	100479	2933	102715	44.22%
_	Rome, GA	96317	13640	8987	70959	73.67%	13494	1225	14431	14.98%
	Savannah MSA	347611	117726	17207	199249	57.32%	116466	7127	121511	34.96%
	Valdosta MSA	139588	47432	7735	80113	57.39%	47040	1725	48769	34.94%
	Warner Robins MSA	179605	56537	10870	104696	58.29%	55990	3685	58647	32.65%
			PELL	ALEVED FROM	ADEN					

County	MSA	Population	SR Black	Latino	NH White	% NH White	NH Black	NH Asian	AP Black	% AP Black
APPLING		18521	3582	1900	12789	69.05%	3444	121	3751	20.25%
ATKINSON		8342	1438	2070	4739	56.81%	1343	30	1551	18.59%
BACON		11319	1880	1008	8249	72.88%	1816	49	2020	17.85%
BAKER	Albany MSA	3200	1456	182	1514	47.31%	1427	29	1477	46.16%
BALDWIN		44906	19119	1024	23519	52.37%	18950	755	19474	43.37%
BANKS		18634	514	1238	16414	88.09%	468	217	629	3.38%
BARROW	Atlanta MSA	79061	9620	8674	56565	71.55%	9198	2900	10687	13.52%
BARTOW	Atlanta MSA	105054	11831	9058	81444	77.53%	11331	1045	12987	12.36%
BEN HILL		16996	6101	1046	9523	\$56.03	6038	132	6239	36.71%
BERRIEN		19186	2082	954	15722	81.95%	2026	207	2227	11.61%
BIBB	Macon MSA	152862	84474	5019	58543	38.30%	83631	3151	85997	56.26%
BLECKLEY		12830	3426	367	8788	68.50%	3380	140	3513	27.38%
BRANTLEY	Brunswick MSA	18731	650	421	17244	92.06%	618	52	794	4.24%
BROOKS	Valdosta MSA	15587	5475	904	8884	57.00%	5394	139	5585	35.83%
BRYAN	Savannah MSA	37060	5528	2683	27189	73.36%	5286	726	6181	16.68%
BULLOCH		76149	22569	2912	48420	63.59%	22223	1109	23387	30.71%
BURKE	Augusta MSA	22522	10752	692	10684	47.44%	10641	107	10956	48.65%
BUTTS	Atlanta MSA	24059	6887	786	15960	66.34%	6802	144	7077	29.42%
CALHOUN		6455	3922	323	2120	32.84%	3873	48	3972	61.53%
CAMDEN		53044	10164	3597	37029	69.81%	9835	734	11085	20.90%
CANDLER		10797	2651	1342	6633	61.43%	2607	72	2733	25.31%
CARROLL	Atlanta MSA	117812	23132	8290	83316	70.72%	22458	1052	24958	21.18%
CATOOSA	Chattanooga, TN-GA	66550	1922	2052	60396	90.75%	1809	900	2520	3.79%
CHARLTON		12715	3824	483	7891	62.06%	3767	104	3952	31.08%
CHATHAM	Savannah MSA	290501	118162	19122	140672	48.42%	115693	8356	122133	42.04%
CHATTAHOOCH	Columbus MSA	10343	2069	1605	5956	57.58%	1960	332	2279	22.03%
CHATTOOGA		24770	2500	1259	20487	82.71%	2425	131	2796	11.29%
CHEROKEE	Atlanta MSA	247573	17432	25621	195900	79.13%	16174	4775	19969	8.07%
CLARKE	Athens-Clarke County MSA	127064	36003	13835	69991	55.08%	35203	5446	37374	29.41%
CLAY		2962	1798	47	1063	35.89%	1793	13	1813	61.21%
CLAYTON	Atlanta MSA	285,153	203,929	37,927	28,787	10.10%	197,650	14,758	209,229	73.37%
CLINCH		6,727	1,824	386	4,376	65.05%	1,785	21	1,905	28.32%
COBB	Atlanta MSA	755,754	214,995	98,915	392,410	51.92%	205,908	40,628	226,999	30.04%

County	MSA	Population	SR Black	Latino	NH White	% NH White	NH Black	NH Asian	AP Black	% AP Black
COFFEE		43,014	12,156	5,138	24,951	58.01%	11,934	397	12,532	29.13%
COLQUITT		45,835	10,784	9,075	25,436	55.49%	10,439	345	11,086	24.19%
COLUMBIA	Augusta MSA	151,579	27,256	10,113	104,249	68.78%	26,008	6,301	29,657	19.57%
СООК		17,277	4,775	985	11,170	64.65%	4,711	131	4,921	28.48%
COWETA	Atlanta MSA	143,114	26,151	10,093	101,706	71.07%	25,449	2,911	27,618	19.30%
CRAWFORD	Macon MSA	12,295	2,528	395	9,047	73.58%	2,497	143	2,609	21.22%
CRISP		22,736	10,112	758	11,417	50.22%	9,998	271	10,278	45.21%
DADE	Chattanooga, TN-GA	16,285	213	386	15,253	93.66%	196	158	288	1.77%
DAWSON	Atlanta MSA	24,379	219	1,122	22,514	92.35%	178	165	386	1.58%
DECATUR		26,716	11,340	1,618	13,459	50.38%	11,153	149	11,528	43.15%
DEKALB	Atlanta MSA	753,253	414,724	65,070	219,274	29.11%	405,649	48,146	424,770	56.39%
DODGE		20,730	6,204	728	13,534	65.29%	6,064	106	6,380	30.78%
DOOLY		13,737	6,835	998	5,823	42.39%	6,661	93	6,910	50.30%
DOUGHERTY	Albany MSA	89,502	62,873	2,554	22,605	25.26%	62,299	801	63,672	71.14%
DOUGLAS	Atlanta MSA	143,882	67,624	13,976	58,405	40.59%	65,564	2,407	70,113	48.73%
EARLY		10,296	5,251	241	4,645	45.11%	5,205	64	5 <i>,</i> 300	51.48%
ECHOLS	Valdosta MSA	3,936	217	1,180	2,432	61.79%	181	19	247	6.28%
EFFINGHAM	Savannah MSA	59,982	8,330	2,616	47,270	78.81%	8,160	623	8,952	14.92%
ELBERT		19,109	5,570	1,111	12,121	63.43%	5,434	160	5,719	29.93%
EMANUEL		22,530	7,884	1,012	13,327	59.15%	7,772	136	8,032	35.65%
EVANS		10,775	3,347	1,296	6,060	56.24%	3,193	87	3,413	31.68%
FANNIN		25,322	203	632	24,002	94.79%	176	136	297	1.17%
FAYETTE	Atlanta MSA	112,549	26,533	8,285	70,237	62.41%	25,877	5,631	27,894	24.78%
FLOYD	Rome, GA	97,613	14,463	10,913	69,481	71.18%	14,003	1,432	15,535	15.91%
FORSYTH	Atlanta MSA	227,967	8,711	21,951	163,835	71.87%	7,974	30,252	10,225	4.49%
FRANKLIN		22,820	2,186	1,070	19,055	83.50%	2,082	247	2,406	10.54%
FULTON	Atlanta MSA	1,041,423	464,615	76,270	414,371	39.79%	455,122	74,965	478,034	45.90%
GILMER		30,674	504	3,798	26,091	85.06%	188	162	635	2.07%
GLASCOCK		3,062	284	54	2,658	86.81%	279	7	306	9.99%
GLYNN	Brunswick MSA	85,282	22,956	5,944	54,087	63.42%	22,304	1,275	23,887	28.01%
GORDON		57,089	2,430	9,261	44,106	77.26%	2,173	589	2,986	5.23%
GRADY		24,819	7,304	2,906	14,363	57.87%	7,014	109	7,483	30.15%
GREENE		17,281	5,983	1,056	9,928	57.45%	5,862	177	6,107	35.34%

County	MSA	Population	SR Black	Latino	NH White	% NH White	NH Black	NH Asian	AP Black	% AP Black
GWINNETT	Atlanta MSA	920,260	264,331	195,111	343,837	37.36%	248,276	110,875	280,023	30.43%
HABERSHAM		44,567	1,758	6,625	34,498	77.41%	1,635	1,038	2,110	4.73%
HALL	Gainesville, GA	199,335	16,023	56,983	121,216	60.81%	14,530	3,734	17,623	8.84%
HANCOCK		8,561	6,096	200	2,100	24.53%	6,072	99	6,130	71.60%
HARALSON	Atlanta MSA	29,256	1,392	485	26,649	91.09%	1,367	213	1,632	5.58%
HARRIS	Columbus MSA	33,915	5,715	1,239	26,056	76.83%	5,609	348	5,986	17.65%
HART		25,794	4,919	1,010	19,270	74.71%	4,865	251	5,212	20.21%
HEARD	Atlanta MSA	11,730	1,179	312	9,946	84.79%	1,158	66	1,325	11.30%
HENRY	Atlanta MSA	225,813	101,649	15,516	98,593	43.66%	98,750	7,507	105,478	46.71%
HOUSTON	Warner Robins MSA	153,479	48,579	10,337	86,496	56.36%	47,646	4,603	51,023	33.24%
IRWIN		9,410	2,638	362	6,286	66.80%	2,599	73	2,701	28.70%
JACKSON		67,519	4,833	5 <i>,</i> 058	55,270	81.86%	4,658	1,323	5,505	8.15%
JASPER	Atlanta MSA	13,964	2,802	577	10,347	74.10%	2,753	45	2,958	21.18%
JEFF DAVIS		15,025	2,300	1,787	5 10,755	71.58%	2,204	89	2,425	16.14%
JEFFERSON		15,648	8,270	609	6,582	42.06%	8,201	88	8,373	53.51%
JENKINS		8,767	3,825	488	4,443	50.68%	3,697	41	3,872	44.17%
JOHNSON		9,788	3,335	235	6,120	62.53%	3,293	37	3,391	34.64%
JONES	Macon MSA	28,470	7,130	495	20,277	71.22%	7,075	171	7,377	25.91%
LAMAR	Atlanta MSA	18,599	5,582	464	12,141	65.28%	5,515	124	5,780	31.08%
LANIER	Valdosta MSA	10,425	2,274	612	7,141	68.50%	2,219	128	2,435	23.36%
LAURENS		47,330	17,583	1,253	27,513	58.13%	17,441	488	17,973	37.97%
LEE	Albany MSA	29,470	6,222	842	21,212	71.98%	6,163	786	6,438	21.85%
LIBERTY	Hinesville MSA	61,386	27,082	7,850	23,733	38.66%	25,660	1,208	29,025	47.28%
LINCOLN	Augusta MSA	7,880	2,357	151	5,187	65.82%	2,345	34	2,434	30.89%
LONG	Hinesville MSA	19,014	5,204	2,101	10,938	57.53%	4,912	241	5,682	29.88%
LOWNDES	Valdosta MSA	115,489	42,706	6,711	62,165	53.83%	41,926	2,232	44,114	38.20%
LUMPKIN		32,873	560	1,604	29,766	90.55%	484	236	803	2.44%
MCDUFFIE	Augusta MSA	21,498	8,952	654	11,474	53.37%	8,851	102	9,206	42.82%
MCINTOSH	Brunswick MSA	14,106	4,753	300	8,777	62.22%	4,720	47	4,891	34.67%
MACON		13,314	8,057	602	4,385	32.94%	7,992	200	8,135	61.10%
MADISON	Athens-Clarke County MSA	29,302	2,668	1,593	24,075	82.16%	2,574	545	2,956	10.09%
MARION	Columbus MSA	8,450	2,671	629	4,970	58.82%	2,586	75	2,750	32.54%
MERIWETHER	Atlanta MSA	21,049	8,285	451	11,886	56.47%	8,232	122	8,490	40.33%

County	MSA	Population	SR Black	Latino	NH White	% NH White	NH Black	NH Asian	AP Black	% AP Black
MILLER		5,838	1,645	172	3,928	67.28%	1,612	33	1,696	29.05%
MITCHELL		22,292	10,687	1,002	10,268	46.06%	10,589	158	10,812	48.50%
MONROE	Macon MSA	27,113	6,244	645	19,619	72.36%	6,191	232	6,477	23.89%
MONTGOMERY	<i>'</i>	9,031	2,385	593	5,962	66.02%	2,293	56	2,465	27.29%
MORGAN	Atlanta MSA	18,412	4,199	579	13,241	71.92%	4,157	125	4,359	23.67%
MURRAY	Dalton, GA	39,782	508	6,047	32,749	82.32%	301	187	774	1.95%
MUSCOGEE	Columbus MSA	194,058	92,424	14,701	78,458	40.43%	89,765	5,187	96,298	49.62%
NEWTON	Atlanta MSA	108,078	49,334	6,069	50,341	46.58%	48,221	1,129	50,891	47.09%
OCONEE	Athens-Clarke County MSA	38,028	2,005	1,893	32,119	84.46%	1,890	1,567	2,266	5.96%
OGLETHORPE	Athens-Clarke County MSA	14,877	2,530	718	11,233	75.51%	2,471	134	2,731	18.36%
PAULDING	Atlanta MSA	159,445	31,908	10,046	113,429	71.14%	30,679	1,749	34,106	21.39%
PEACH	Warner Robins MSA	27,099	11,962	2,159	12,311	45.43%	11,831	276	12,286	45.34%
PICKENS	Atlanta MSA	31,588	387	999	29,475	93.31%	327	277	575	1.82%
PIERCE		19,307	1,674	1,014	5 16,213	83.97%	1,623	116	1,826	9.46%
PIKE	Atlanta MSA	18,217	1,744	297	15,808	86.78%	1,716	81	1,899	10.42%
POLK		42,085	5,381	5,684	30,201	71.76%	5,175	290	5,894	14.00%
PULASKI	Warner Robins MSA	11,201	3,603	395	6,950	62.05%	3,564	115	3,708	33.10%
PUTNAM		21,730	5,81.6	1,457	14,165	65.19%	5,686	133	5,987	27.55%
QUITMAN		2,358	1,124	41	1,156	49.02%	1,118	7	1,141	48.39%
RABUN		16,602	263	1,347	14,545	87.61%	218	165	399	2.40%
RANDOLPH		7,075	4,345	174	2,506	35.42%	4,305	38	4,384	61.96%
RICHMOND	Augusta MSA	201,800	114,428	10,109	70,280	34.83%	112,223	3,537	118,026	58.49%
ROCKDALE	Atlanta MSA	90,312	50,086	9,462	28,623	31.69%	48,724	1,550	51,452	56.97%
SCHLEY		5,213	1,070	259	3,813	73.14%	1,053	28	1,109	21.27%
SCREVEN		13,953	5,778	303	7,643	54.78%	5,727	80	5,887	42.19%
SEMINOLE		8,292	2,773	261	5,111	61.64%	2,728	64	2,851	34.38%
SPALDING	Atlanta MSA	65,380	22,373	3,006	38,295	58.57%	22,088	692	23,151	35.41%
STEPHENS		25,890	2,839	916	21,287	82.22%	2,765	238	3,315	12.80%
STEWART		5,985	2,995	1,786	1,462	24.43%	2,542	122	3,057	51.08%
SUMTER		29,847	15,872	1,627	11,802	39.54%	15,660	379	16,083	53.88%
TALBOT		6,249	3,487	164	2,528	40.45%	3,441	14	3,539	56.63%
TALIAFERRO		1,628	921	68	597	36.67%	909	21	938	57.62%
TATTNALL		25,334	7,440	2,803	14,818	58.49%	7,239	145	7,636	30.14%

County	MSA	Population	SR Black	Latino	NH White	% NH White	NH Black	NH Asian	AP Black	% AP Black
TAYLOR		8,142	3,165	217	4,642	57.01%	3,120	65	3,224	39.60%
TELFAIR		15,989	5,953	2,355	7,877	49.27%	5,477	105	6,083	38.04%
TERRELL	Albany MSA	8,729	5,223	260	3,120	35.74%	5,197	36	5,299	60.71%
THOMAS		44,779	16,364	1,645	25,805	57.63%	16,193	421	16,720	37.34%
TIFT		40,598	12,319	4,875	22,582	55.62%	11,993	596	12,666	31.20%
TOOMBS		26,999	7,032	3,256	16,248	60.18%	6,842	205	7,307	27.06%
TOWNS		11,506	133	303	10,875	94.52%	122	73	185	1.61%
TREUTLEN		6,740	2,173	184	4,298	63.77%	2,156	23	2,219	32.92%
TROUP		69,786	25,195	2,695	39,411	\$56.47%	24,964	1,462	25,962	37.20%
TURNER		7,961	3,168	377	4,293	53.93%	3,110	68	3,229	40.56%
TWIGGS	Macon MSA	8,174	3,384	209	4,466	54.64%	3,335	29	3,462	42.35%
UNION		23,459	209	769	22,002	93.79%	183	144	301	1.28%
UPSON		26,135	7,486	601	17,578	67.26%	7,362	154	7,722	29.55%
WALKER	Chattanooga, TN-GA	68,939	2,997	1,517	62,849	91.17%	2,938	376	3,645	5.29%
WALTON	Atlanta MSA	91,600	16,391	4,024	68,508	74.79%	16,057	1,368	17,258	18.84%
WARE		35,871	10,867	1,537	22,597	63.00%	10,692	338	11,287	31.47%
WARREN		5,303	3,155	71	1,996	37.64%	3,136	33	3,189	60.14%
WASHINGTON		20,313	10,891	510	8,661	42.64%	10,797	116	11,049	54.39%
WAYNE		29,817	5,894	1,904	21,338	71.56%	5,725	174	6,305	21.15%
WEBSTER		2,605	1,087	113	1,370	52.59%	1,070	13	1,110	42.61%
WHEELER		7,952	3,020	425	4,452	55.99%	2,947	22	3,086	38.81%
WHITE		29,453	599	988	27,131	92.12%	566	152	848	2.88%
WHITFIELD	Dalton, GA	104,658	4,529	37,120	60,877	58.17%	3,744	1,450	5,433	5.19%
WILCOX		8,800	3,056	425	5,190	58.98%	2,994	53	3,154	35.84%
WILKES		9,892	4,135	507	5,013	50.68%	4,081	77	4,279	43.26%
WILKINSON		8,959	3,437	260	5,088	56.79%	3,425	45	3,519	39.28%
WORTH	Albany MSA	20,533	5,826	423	13,898	67.69%	5,757	131	5,988	29.16%
Statewide		10,429,379	3,361,924	1,005,959	5,507,334	52.81%	3,267,577	430,841	3,495,258	33.51%

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Client: State Plan: Scnate14 Type: Senate

Case 1:18-cv-02869-JPB Document 66-4 Filed 05/01/19 Page 67 of 306 Georgia Senate Districts- effective for 2014 election

Client: State Plan: Senate14 Type: Senate





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Plan N	Name: Se	nate14	F	lan Type : Senat	e	Use	r: Gina	1	Administrator:	State	
DISTR	RICT	POPULATION	DEVIATION	% DEVIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL BLACK	HISP. OR LATINO	%HISP
001		171 250	1.644	0.05%	27 852	22.00%	2 402	40.245	22 559/	10.252	5 08%
001	VAD	171,550	-1,044	-0.95%	26 202	22.09%	2,493	40,343 27.080	23.33%	6 353	3.98%
	V/ II	,,			_ •,_ •_			_,,		-,	
002	14 D	172,067	-927	-0.54%	92,824	53.95%	2,226	95,050	55.24%	9,860	5.73%
	VAP	132,343			00,470	50.15%	1,050	67,520	50.94%	0,981	5.27%
003		171,952	-1,042	-0.60%	39,606	23.03%	1,755	41,361	24.05%	8,534	4.96%
	VAP	129,192			28,065	21.72%	585	28,650	22.18%	5,463	4.23%
004		173,075	81	0.05%	41,571	24.02%	1,245	42,816	24.74%	8,958	5.18%
	VAP	131,149			30,454	23.22%	468	30,922	23.58%	5,691	4.34%
005		172,513	-481	-0.28%	49,881	28.91%	2,901	52,782	30.60%	71,815	41.63%
	VAP	119,904			33,732	28.13%	1,292	35,024	29.21%	45,746	38.15%
006		173,708	714	0.41%	39,863	22.95%	2,400	42,263	24.33%	24,754	14.25%
	VAP	137,161			30,590	22.30%	1,349	31,939	23.29%	16,160	11.78%
007		171 409	1 406	0.000/	20 204	22 01%	1 115	40,400	22 56%	11 695	6 910/
007	VAD	171,498	-1,490	-0.86%	28 401	22.91%	309	28 710	22.30%	6 972	5 44%
	V/ II				ON			_0,,		•,• •	
008		171,383	-1,611	-0.93%	56,380	32.90%	1,515	57,895	33.78%	9,198	5.37%
	VAP	128,253		EVEL	40,080	31.25%	592	40,672	31.71%	5,852	4.56%
009		173,867	873	0.50%	34,699	19.96%	2,110	36,809	21.17%	18,207	10.47%
	VAP	125,254		6 <u>-</u> ~	22,663	18.09%	832	23,495	18.76%	11,604	9.26%
010		172,386	-608	-0.35%	118,775	68.90%	2,614	121,389	70.42%	7,140	4.14%
	VAP	125,304			84,709	67.60%	1,289	85,998	68.63%	4,386	3.50%
011		172,584	-410	-0.24%	57,123	33.10%	959	58,082	33.65%	13,703	7.94%
	VAP	127,856			39,947	31.24%	352	40,299	31.52%	8,305	6.50%
012		173,031	37	0.02%	107,565	62.17%	1,262	108,827	62.89%	6,147	3.55%
	VAP	130,495			76,605	58.70%	556	77,161	59.13%	4,550	3.49%
013		171 520	1 455	0.040/	55 521	22 270/	051	56 472	22 02%	<u> 9 156</u>	1 75%
015	VAD	171,559	-1,455	-0.84%	39 341	30.65%	314	39,655	30.90%	5,009	3 90%
	VAI	120,001			59,511	20.0270	511	53,000	20.2070	0,000	5.7070
014		173,151	157	0.09%	15,505	8.95%	1,636	17,141	9.90%	18,976	10.96%
	VAP	126,557			10,603	8.38%	465	11,068	8.75%	11,707	9.25%
015		173,280	286	0.17%	96,128	55.48%	2,958	99,086	57.18%	10,633	6.14%
	VAP	128,462			69,203	53.87%	1,220	70,423	54.82%	6,935	5.40%

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Plan 1	Name: Se	nate14	F	Plan Type : Senate	e	Use	r: Gina	A	Administrator: S	state	
DIST	RICT	POPULATION	DEVIATION	% DEVIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL BLACK	HISP. OR LATINO	%HISP
016		172,012	-982	-0 57%	35,797	20.81%	1,478	37,275	21.67%	7,128	4.14%
	VAP	127,450			25,465	19.98%	519	25,984	20.39%	4,552	3.57%
017		171.822	-1.172	-0.68%	51.053	29.71%	2.106	53,159	30.94%	7,980	4.64%
	VAP	121,373			33,663	27.74%	747	34,410	28.35%	4,852	4.00%
018		172,982	-12	-0.01%	48,323	27.94%	1,242	49,565	28.65%	6,126	3.54%
	VAP	132,567			35,668	26.91%	447	36,115	27.24%	3,906	2.95%
019		173,261	267	0.15%	45,980	26.54%	1,751	47,731	27.55%	15,524	8.96%
	VAP	128,915		0.1270	33,460	25.96%	529	33,989	26.37%	10,084	7.82%
020		173,859	865	0.50%	50,174	28.86%	1,700	51,874	29.84%	7,596	4.37%
	VAP	128,979			35,317	27.38%	567	35,884	27.82%	4,759	3.69%
021		174,508	1,514	0.88%	11,300	6.48%	1,358	12,658	7.25%	11,742	6.73%
	VAP	125,212			7,721	6.17%	489	8,210	6.56%	7,457	5.96%
022		171,645	-1,349	-0.78%	101,076	58.89%	2,998	104,074	60.63%	7,217	4.20%
	VAP	129,039			71 660	55.53%	1,337	72,997	56.57%	4,982	3.86%
023		171,559	-1,435	-0.83%	62,136	36.22%	1,544	63,680	37.12%	5,511	3.21%
	VAP	128,048			43,718	34.14%	496	44,214	34.53%	3,559	2.78%
024		172,595	-399	0.23%	33,638	19.49%	1,599	35,237	20.42%	6,943	4.02%
	VAP	129,147		P.E.	24,539	19.00%	470	25,009	19.36%	4,236	3.28%
025		174,016	1,022	0.59%	52,329	30.07%	1,171	53,500	30.74%	5,684	3.27%
	VAP	134,483			38,282	28.47%	378	38,660	28.75%	3,698	2.75%
026		171,351	-1,643	-0.95%	103,229	60.24%	1,561	104,790	61.16%	5,003	2.92%
	VAP	126,588			72,782	57.50%	626	73,408	57.99%	3,298	2.61%
027		172,726	-268	-0.15%	4,490	2.60%	778	5,268	3.05%	16,179	9.37%
	VAP	120,121			2,998	2.50%	277	3,275	2.73%	10,177	8.47%
028		172,358	-636	-0.37%	28,697	16.65%	1,436	30,133	17.48%	9,562	5.55%
	VAP	126,140			20,138	15.96%	414	20,552	16.29%	6,218	4.93%
029		173,911	917	0.53%	45,511	26.17%	1,733	47,244	27.17%	7,317	4.21%
	VAP	131,011			32,576	24.87%	552	33,128	25.29%	4,795	3.66%
030		172,531	-463	-0.27%	33,612	19.48%	2,207	35,819	20.76%	10,302	5.97%
	VAP	125,663			23,275	18.52%	700	23,975	19.08%	6,291	5.01%
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Plan 1	Name: Se	nate14	F	Plan Type : Senat	e	Use	r: Gina	A	Administrator: S	State	
DIST	RICT	POPULATION	DEVIATION	% DEVIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL BLACK	HISP. OR LATINO	%HISP
021		174.209	1 204		22 (1(12 550/	1 709	25 414	14.500/	10.7(2)	(170/
031	VAD	174,298	1,304	0.75%	23,010 15,799	13.55%	511	25,414 16 310	14.58%	6 220	4 98%
	VAI	12 1,020			10,777	12.0070	011	10,010	10.0770	0,220	
032	IAD	174,271	1,277	0.74%	14,817	8.50%	1,334	16,151	9.27%	9,811	5.63%
	VAP	130,854			10,791	8.23%	542	11,555	8.00%	0,539	5.00%
033		174,114	1,120	0.65%	62,936	36.15%	3,058	65,994	37.90%	33,571	19.28%
	VAP	128,718			43,422	33.73%	1,379	44,801	34.81%	20,775	16.14%
034		173,063	69	0.04%	108,169	62.50%	2,853	111,022	64.15%	24,642	14.24%
	VAP	123,516			75,265	60.94%	1,375	76,640	62.05%	15,146	12.26%
035		173,728	734	0.42%	107,338	61.79%	3,0(3	110,351	63.52%	13,774	7.93%
	VAP	122,650			72,472	59.09%	1,309	73,781	60.16%	8,213	6.70%
036		172,083	-911	-0.53%	103,348	60.06%	2,338	105,686	61.42%	12,232	7.11%
	VAP	137,631			78,481	57.92%	1,630	80,111	58.21%	8,800	6.39%
037		172,832	-162	-0.09%	30,548	17.67%	1,919	32,467	18.79%	13,258	7.67%
	VAP	126,053			20 606	16.35%	802	21,408	16.98%	8,429	6.69%
038		174.530	1.536	0.89%	P 110.537	63.33%	2.421	112 958	64.72%	17 411	9.98%
	VAP	129,186	-,	0.07/0	80,556	62.36%	1,289	81,845	63.35%	10,835	8.39%
030		172 800	915		110 761	62 729/	2 202	112.064	65.05%	0.651	5 550/
039	VAD	139 465	815	0.4/%	83.562	59.92%	1.557	85.119	61.03%	6 962	4.99%
0.40	v/ ti						,				
040		173,539	545	0.32%	26,747	15.41%	1,754	28,501	16.42%	36,807	21.21%
	VAP	155,940			20,482	13.29%	1,010	21,492	10.05%	23,334	18.93%
041		173,452	458	0.26%	90,037	51.91%	2,732	92,769	53.48%	23,281	13.42%
	VAP	127,577			64,136	50.27%	1,444	65,580	51.40%	14,850	11.64%
042		172,447	-547	-0.32%	42,913	24.88%	1,779	44,692	25.92%	24,229	14.05%
	VAP	138,757			33,570	24.19%	1,094	34,664	24.98%	16,922	12.20%
043		172,105	-889	-0.51%	105,035	61.03%	2,631	107,666	62.56%	12,251	7.12%
	VAP	123,175			71,792	58.28%	1,213	73,005	59.27%	7,461	6.06%
044		174,464	1,470	0.85%	122,966	70.48%	2,787	125,753	72.08%	14,561	8.35%
	VAP	127,853			87,966	68.80%	1,378	89,344	69.88%	9,051	7.08%
045		173,558	564	0.33%	24,226	13.96%	1,927	26,153	15.07%	22,225	12.81%
	VAP	120,526			15,902	13.19%	691	16,593	13.77%	13,760	11.42%
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Plan	Name: Se	enate14	Р	Plan Type : Senat	e	Use	er: Gina		Administrator: St	ate	
				%		%	BLACK	TOTAL	%TOTAL	HISP. OR	
DIST	RICT	POPULATION	DEVIATION	DEVIATION	BLACK	BLACK	СОМВО	BLACK	BLACK	LATINO	%HISP
046		174,230	1,236	0.71%	30,244	17.36%	1,313	31,557	18.11%	8,606	4.94%
	VAP	135,912			21,845	16.07%	563	22,408	16.49%	5,673	4.17%
047		174,417	1,423	0.82%	25,803	14.79%	1,534	27,337	15.67%	16,455	9.43%
	VAP	129,264			18,117	14.02%	489	18,606	14.39%	9,911	7.67%
048		171,240	-1,754	-1.01%	25,398	14.83%	1,929	27,327	15.96%	21,232	12.40%
	VAP	122,833			17,133	13.95%	794	17,927	14.59%	13,645	11.11%
049		173,823	829	0.48%	12,877	7.41%	1,070	13,947	8.02%	44,504	25.60%
	VAP	125,571			9,143	7.28%	322	9,465	7.54%	25,911	20.63%
050		171,792	-1,202	-0.69%	9,219	5.37%	1,099	10,318	6.01%	13,621	7.93%
	VAP	131,117			6,960	5.31%	256	7,216	5.50%	7,940	6.06%
051		173,593	599	0.35%	1,471	0.85%	498	1,969	1.13%	7,454	4.29%
	VAP	136,858			1,128	0.82%	148	1,276	0.93%	4,570	3.34%
052		172,494	-500	-0.29%	19,604	11.37%	1,418	21,022	12.19%	18,234	10.57%
	VAP	128,253			13 936	10.87%	368	14,304	11.15%	10,849	8.46%
053		173,151	157	0.09%	7,102	4.10%	1,091	8,193	4.73%	3,905	2.26%
	VAP	132,044			5,563	4.21%	239	5,802	4.39%	2,345	1.78%
054		173,417	423	0.24%	4,520	2.61%	968	5,488	3.16%	38,990	22.48%
	VAP	125,379		ALL .	3,377	2.69%	250	3,627	2.89%	22,395	17.86%
055		174,196	1,202	0.69%	114,253	65.59%	3,254	117,507	67.46%	11,564	6.64%
	VAP	123,203			78,012	63.32%	1,571	79,583	64.60%	6,951	5.64%
056		174,487	1,493	0.86%	26,018	14.91%	2,040	28,058	16.08%	22,826	13.08%
	VAP	129,856			19,127	14.73%	996	20,123	15.50%	14,917	11.49%
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Total Population: 9,687,653

Ideal Value: 172,994

Summary Statistics



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Population Summary Report Georgia U.S. House - Benchmark 2005 Plan -- 2010 Census

Deviation based on 14 Districts post-2010

District	Population	Deviation	% Deviation	Any Part Black	% Any Part Black	18+_Pop	Any Part Black 18+	% Any Part Black 18=	Latino 18+	% Latino 18+	NH White 18 +	% NH White 18 +
01	722068	30093	4.35%	190603	26.40%	539387	132469	24.56%	29439	5.46%	366863	68.01%
02	631973	-60002	-8.67%	311689	49.32%	473245	221676	46.84%	19050	4.03%	226583	47.88%
03	817247	125272	18.10%	208901	25.56%	602082	142849	23.73%	25424	4.22%	418064	69.44%
04	665541	-26434	-3.82%	382687	57.50%	491317	273637	55.69%	70639	14.38%	120145	24.45%
05	630462	-61513	-8.89%	324809	51.52%	502193	246248	49.03%	35026	6.97%	200391	39.90%
06	767798	75823	10.96%	85894	11.19%	567076	60353	10.64%	46929	8.28%	412477	72.74%
07	903191	211216	30.52%	213854	23.68%	642070	138459	21.56%	74110	11.54%	368879	57.45%
08	715599	23624	3.41%	256127	35.79%	530981	177478	33.42%	21531	4.05%	322328	60.70%
09	823583	131608	19.02%	31685	3.85%	609141	20888	3.43%	65538	10.76%	507780	83.36%
10	738248	46273	6.69%	149681	20.28%	567614	106285	18.72%	27806	4.90%	415974	73.28%
11	794969	102994	14.88%	132531	16.67%	583126	88805	15.23%	41678	7.15%	436938	74.93%
12	692529	554	0.08%	306384	44.24%	523257	217155	41.50%	20820	3.98%	276035	52.75%
13	784445	92470	13.36%	459253	58.54%	564612	314487	55.70%	61012	10.81%	170057	30.12%
14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	9687653		39.41%	3054098	31.53%	7196101	2140789	29.75%	539002	7.49%	4242514	58.96%

Georgia U.S. House - Benchmark 2005 Plan -- 2000 Census 13 Districts

District	Population	Single-race Black	% Single- race Black	Any Part Black	% Any Part Black	18+_Pop	Single- Race Black 18+	% Single- Race Black 18+	Any Part Black 18+	% Any Part Black 18+	Latino 18+	% Latino 18+
01	629727	158066	25.10%	161374	25.63%	457934	105349	23.01%	132469	24.56%	15552	3.40%
02	629727	301120	47.82%	304291	48.32%	455548	202775	44.51%	221676	46.84%	12735	2.80%
03	629728	205312	32.60%	207529	32.96%	459579	138245	30.08%	142849	23.73%	11697	2.55%
04	629726	333897	53.02%	341279	54.19%	461692	228096	19.40%	273637	55.69%	48709	10.55%
05	629728	353437	56.13%	358000	56.85%	488824	251457	51.44%	246248	49.03%	29547	6.04%
06	629726	43087	6.84%	45653	7.25%	466289	31236	6.70%	60353	10.64%	28533	6.12%
07	629727	73400	11.66%	76452	12.14%	449377	49193	10.95%	138459	21.56%	26188	5.83%
08	629727	120612	19.15%	122745	19.49%	457200	81885	17.91%	177478	33.42%	9483	2.07%
09	629728	125591	19.94%	128148	20.35%	477825	5 87687	18.35%	20888	3.43%	14074	2.95%
10	629728	18749	2.98%	19970	3.17%	466819	13113	2.81%	106285	18.72%	37251	7.98%
11	629727	74164	11.78%	76802	12.20%	459803	50932	11.08%	88805	15.23%	22031	4.79%
12	629727	281965	44.78%	285138	45.28%	460719	191307	41.52%	217155	41.50%	11437	2.48%
13	629727	260142	41.31%	266044	42.25%	455610	171710	37.69%	314487	55.70%	32021	7.03%

				VED							
Total	8186453	2349542	28.70%	2393425 29.24%	6017219	1602985	26.64%	2140789	35.58%	299258	4.97%
				PH-							

Political Subdivisions Split Between Districts

Monday December 3, 2018		10:51 AM
Number of subdivisions not split:		
County 139		
Number of subdivisions split into more than one district:		
County 20		
Number of subdivision splits which affect <i>no</i> population:		
County 1		
Split Counts	-OM	
County		
Cases where a County is split among 2 Districts: 16	C.K.	
Cases where a County is split among 3 Districts: 3	0	
Cases where a County is split among 4 Districts: 1)	
Cases where a country is spin among 4 Districts. I		
Number of times a County has been split into more than one district: 25		
Total of County splits: 45		
CR ^{ON}		
County	District	Population
	District	
Split Counties :	00	5 510
BALDWIN	08	5,519
BUTTS	12	40,201
BUTTS	08	23 655
CARROLL	03	53 909
CARROLL	11	56.618
CHATHAM	01	79.767
СНАТНАМ	12	185,361
CLAYTON	05	9,508
CLAYTON	13	249,916
COBB	06	166,094
COBB	11	267,817
COBB	13	254,167
DEKALB	04	482,099
	05	121,460
DEKALB	114	68,571
DEKALB DEKALB	08	10 7 62
DEKALB DEKALB DOUGLAS	13	19,763
DEKALB DEKALB DOUGLAS	13 03	19,763 28,522
DEKALB DEKALB DOUGLAS DOUGLAS	13 03 11 13	19,763 28,522 105
DEKALB DEKALB DOUGLAS DOUGLAS FORSYTH	00 13 03 11 13 07	19,763 28,522 105 103,776 25,138
DEKALB DEKALB DOUGLAS DOUGLAS FORSYTH FORSYTH	13 03 11 13 07 09	19,763 28,522 105 103,776 25,138 150,373

Plan Name Plan Type:	Case 1:18-cv-02869-JPB	Document 66-4 Administrator: User:	Filed 05/01/19	Page 78 of 306	
County				District	Population
Split Counti	es (continued):				
FULTON				06	318,787
FULTON				13	102,300
GORDON				09	19,767
GORDON				11	35,419
GWINNET	ידי			04	108 020

		04	100,929
GWINNETT		07	696,392
HENRY		03	149,457
HENRY		13	54,465
LOWNDES		01	97,468
LOWNDES		02	11,765
MUSCOGEE		02	109,418
MUSCOGEE		03	80,467
NEWTON		07	28,526
NEWTON		08	71,432
PAULDING		11	142,266
PAULDING		13	58
RICHMOND		10	83,804
RICHMOND		12	116,745
ROCKDALE		03	10,702
ROCKDALE	COM.	04	74,513
WORTH	×.	02	15,988
WORTH	C.Y.Y.	08	5,691
	RETRIEVED FROM DEMOCRACYDOC		



Population Summary Report Georgia U.S. House - 2011 Plan Stats

			Any Part	% Any		Any Part	% Any Part	Latino	% Latino	NH White	% NH White
Distri	Population	Dev.	Black	Part Black	18+_Pop	Black 18+	Black 18=	18+	18+	18 +	18 +
001	691974	-1	216154	31.24%	518743	150187	28.95%	25656	4.95%	330395	63.69%
002	691976	1	361760	52.28%	516392	255417	49.46%	20824	4.03%	232678	45.06%
003	691974	-1	166612	24.08%	511518	114562	22.40%	22243	4.35%	363045	70.97%
004	691976	1	408519	59.04%	503508	284007	56.41%	41041	8.15%	155926	30.97%
005	691976	1	418300	60.45%	541900	312205	57.61%	37240	6.87%	170219	31.41%
006	691975	0	93036	13.44%	519046	67479	13.00%	62253	11.99%	337354	65.00%
007	691975	0	133308	19.26%	489868	87223	17.81%	82112	16.76%	260287	53.13%
800	691976	1	210450	30.41%	518240	147864	28.53%	25129	4.85%	335029	64.65%
009	691975	0	49740	7.19%	520856	34398	6.60%	46597	8.95%	430388	82.63%
010	691976	1	177975	25.72%	521343	125722	24.12%	20668	3.96%	361120	69.27%
011	691975	0	115261	16.66%	512598	79862	15.58%	47452	9.26%	366675	71.53%
012	691975	0	245487	35.48%	518253	172589	33.30%	23384	4.51%	310508	59.91%
013	691976	1	394150	56.96%	495652	267293	53.93%	43142	8.70%	172355	34.77%
014	691974	-1	63346	9.15%	508184	41981	8.26%	41291	8.13%	416535	81.97%
						FRO					
Total	9687653		3054098	31.53%	7196101	2140789	29.75%	539002	7.49%	4242514	58.96%
					2ETRIL						
					N .						

Political Subdivisions Split Between Districts

Monday December 3, 2018		10:57 AM
Number of subdivisions not split:		
County 143		
Number of subdivisions split into more than one dis	trict:	
County 16		
Number of subdivision splits which affect no popula	ation:	
County 0		
G	-lit Country ON	
Country	pin Counts	
<u>County</u>	New York	
Cases where a County is split among 2 Districts: 11	-0 ^{C1}	
Cases where a County is split among 3 Districts: 4	- P	
Cases where a County is split among 4 Districts: 1		
Number of times a County has been split into more than o	ne district: 22	
Total of County splits: 38	M	
^o ^N		
CHE CONTRACTOR		
County	District	Population
Split Counties :		
BIBB	002	112,650
BIBB	008	42,897
CLARKE	009	17,178
CLARKE	010	99,536
CLAYTON	005	103,264
CLAYTON	013	156,160
COBB	006	178,647
COBB	011	337,811
COBB	013	171,620
COLUMBIA	010	15,328
COLUMBIA	012	108,725
DEKALB	004	354,275
DEKALB	005	159,596
DEKALB	006	178,022
EFFINGHAM	001	30,877
EFFINGHAM	012	21,373
FAYETTE	003	88,905
FAYETTE	013	17,662
FORSYTH	007	122,706
FORSYTH	009	52,805
FULTON	005	429,116
FULTON	006	335,306
FULTON	011	39,661

Case 1:18-cv-02869-JPBDocument 66Plan Name: Plan Type:Administ User:	6-4 Filed 05/01/19 Page 82 of 3 rator:	06
County	District	Population
Split Counties (continued):		
FULTON	013	116,498
GWINNETT	004	173,981
GWINNETT	007	569,277
GWINNETT	010	62,106
HENRY	003	60,521
HENRY	010	45,768
HENRY	013	97,633
LOWNDES	001	5,668
LOWNDES	008	103,565
MUSCOGEE	002	145,487
MUSCOGEE	003	44,398
NEWTON	004	78,548
NEWTON	010	21,410
PICKENS	009	19,112
PICKENS	014	10,319

PERMETED FROM DEMOCRACYDOCKET.COM












November 1, 2018 Voter Registration by Race/Ethnicity

Georgia U.S. House - 2011 Plan Stats

	American				
	Indian or	Black not of			
District	Alaskan	Hispanic Origin	Hispanic	Other	NH White
001	0.18%	30.47%	2.39%	1.15%	64.64%
002	0.10%	53.63%	1.31%	0.77%	43.47%
003	0.11%	24.57%	2.05%	1.14%	70.99%
004	0.18%	64.78%	2.89%	2.19%	27.18%
005	0.15%	60.95%	2.44%	1.93%	32.29%
006	0.15%	13.91%	4.18%	2.33%	73.03%
007	0.21%	23.19%	8.58%	2.73%	55.20%
800	0.13%	30.27%	1.80%	0.93%	65.82%
009	0.14%	6.32%	3.69%	0.66%	88.34%
010	0.11%	24.29%	2.37%	1.04%	70.77%
011	0.17%	17.04%	4.32%	1.61%	74.81%
012	0.13%	35.08%	1.85%	1.07%	60.67%
013	0.16%	64.72%	3.80%	2.01%	27.72%
014	0.13%	9.87%	2,37%	0.67%	86.38%

Note: Calculations exclude voters whose race is unknown



Population Summary Report Georgia U.S. House - Illustrative Plan 1

			Any Part	% Any Part		Any Part	% Any Part		% Latino	NH White	% NH
Distric	Population	Dev.	Black	Black	18+_Pop	Black 18+	Black 18=	Latino 18+	18+	18 +	White 18 +
001	691976	1	169577	24.51%	519021	118025	22.74%	27974	5.39%	361505	69.65%
002	691976	1	344075	49.72%	520467	244194	46.92%	22121	4.25%	246679	47.40%
003	691974	-1	157847	22.81%	514960	110647	21.49%	20387	3.96%	372712	72.38%
004	691976	1	408519	59.04%	503508	284007	56.41%	41041	8.15%	155926	30.97%
005	691976	1	418300	60.45%	541900	312205	57.61%	37210	6.87%	170219	31.41%
006	691975	0	93036	13.44%	519046	67479	13.00%	62253	11.99%	337354	65.00%
007	691975	0	133308	19.26%	489868	87223	17.81%	82112	16.76%	260287	53.13%
800	691974	-1	184332	26.64%	517008	129394	25,03%	27953	5.41%	349064	67.52%
009	691975	0	49740	7.19%	520856	34398	6.60%	46597	8.95%	430388	82.63%
010	691975	0	149967	21.67%	511173	101495	19.86%	23666	4.63%	368220	72.03%
011	691975	0	115261	16.66%	512598	79862	15.58%	47452	9.26%	366675	71.53%
012	691976	1	372640	53.85%	521860	262586	50.32%	15803	3.03%	234595	44.95%
013	691976	1	394150	56.96%	495652	267293	53.93%	43142	8.70%	172355	34.77%
014	691974	-1	63346	9.15%	508184	41981	8.26%	41291	8.13%	416535	81.97%
						4P					
Total	9687653		3054098	31.53%	196101	<u>}</u> 2140789	<u>2</u> 9.75%	39002	'.49 %	1242514	58.96%
					2FTRIL						
					<i>X</i>						

Political Subdivisions Split Between Districts

Number of subdivisions not split: County 142 Number of subdivisions split into more than one district: County 17 Number of subdivision splits which affect <i>no</i> population: County 0 Split Counts County 0 County 0 County 15 split among 2 Districts: 13 Cases where a County is split among 2 Districts: 1 Number of times a County is split among 4 Districts: 1 Number of times a County has been split into more than one district: 22 Total of County splits: 39 County District Population Split Counties : BIB 0008 66.292 BIBB 012 89.255 BUTTS 0008 66.292 BIBB 012 89.255 BUTTS 010 3.405 CHATHAM 012 1249.255 CHATHAM 012 1241.35 CLAREE 009 17.178 CLAREE 009 17.178 CLAREE 000 19.356 CLAYTON 005 103.246 CLAYTON 005 103.245 DIST. 001 34.055 CLAYTON 005 103.245 DIST. 001 34.055 CLAYTON 005 103.245 DIST. 001 34.055 CLAYTON 005 103.245 DIST. 001 34.055 DIST. 001 34.055 DIST. 001 34.055 CLAYTON 005 103.245 DIST. 001 34.055 DIST. 001 34.055 CLAYTON 005 103.245 DIST. 001 34.055 DIST. 001 34.275 DIST. 001 34.355.160 COBB 006 178.647 COBB 007 122.227.718 COBB 006 178.647 COBB 006 178.647 COBB 006 178.647 COBB 006 178.647 COBB 007 122.767 COBB 007 122.767 C	Monday December 3, 2018		11:00 AM
County 142 Number of subdivisions split into more than one district: County 17 Number of subdivision splits which affect <i>no</i> population: County 0 Split Counts County County 0 Split Counts County Cases where a County is split among 2 Districts: 13 County Cases where a County is split among 3 Districts: 1 County Number of times a County is split none than one district: 22 County County District: 1 County splits: 39 District: 22 Total of County splits: 39 OI0 Split Counties : BIBB BIBB OI0 Split Counties : OI0 County District Population Split Counties : OI0 BIBB OI0 3403 ClarkE OI0 140,990 CHATHAM OI0 140,990 CLARKE OI0 151,610	Number of subdivisions not split:		
Number of subdivisions split into more than one district: County 17 Number of subdivision splits which affect <i>no</i> population: County 0 Split Counts County 0 County is split among 2 Districts: 13 Cases where a County is split among 3 Districts: 1 Number of times a County is split among 4 Districts: 1 Number of times a County is split into more than one district: 22 Total of County splits: 39 County Split Counties : BIBB BUTTS BUTTS BUTTS BUTTS CLARKB	County 142		
Number of subdivisions split into more than one district: County 17 Number of subdivision splits which affect <i>no</i> population: County 0 Split Counts County Cases where a County is split among 2 Districts: 13 Cases where a County is split among 4 Districts: 1 Number of times a County is split among 4 Districts: 1 Number of times a County has been split into more than one district: 22 Total of County splits: 39 County Coun			
Number of subdivisions split into more than one district: County 17 Number of subdivision splits which affect <i>no</i> population: County 0 Split Counts Cases where a County is split among 2 Districts: 13 Cases where a County is split among 4 Districts: 1 Number of times a County is split among 4 Districts: 22 Total of County splits: 39 County District Population Split Counties : BIBB 008 66.292 BTBB 012 89.255 BUTTS 010 3.405 CHATHAM 011 249.255 BUTTS 010 3.4099 CHATHAM 012 124,138 CLARKE 009 17,178 CLARKE 010 99.556 CLAYTON 01 140.990 CHATHAM 011 249.355 CLAYTON 013 156,160 COBB 011 337.811 COBB 013 176,62 COBB 013 177,622 COBB 013 176,62 COBB 014 24,233 COBB 013 177,622 COBS 014 24,235 DISTS 003 88,905 FAYETTE 003 88,905 FAYETTE 013 17,622 PORNYTH 009 52,305			
County 17 Number of subdivision splits which affect <i>no</i> population: County 0 Split Counts County Cases where a County is split among 2 Districts: 13 Cases where a County is split among 4 Districts: 1 Number of times a County has been split into more than one district: 22 Total of County splits: 39 County C	Number of subdivisions split into more than one dis	strict:	
Number of subdivision splits which affect <i>no</i> population: County 0 Split Counts County Split Counts Cases where a County is split among 2 Districts: 13 Cases where a County is split among 3 Districts: 3 Cases where a County is split among 4 Districts: 1 County Number of times a County has been split into more than one district: 22 Total of County splits: 39 County District Population Split Counties : BIBB 008 66.292 BIBB 012 89.255 80.255 BUTTS 003 20.250 BUTTS 010 3.409 CLARKE 010 140.990 CLARKE 010 9.935 CLARKE 010 9.935 CLARKE 010 9.935 CLARKE 010 9.953 COBB 013 17.162 DEKALB 006 178.647 DEKALB 006 178.647 COBB 013 17.1620 DEKALB 006 178.647 DEKALB 006	County 17		
Number of subdivision splits which affect <i>no</i> population: County 0 Split Counts County Cases where a County is split among 2 Districts: 13 Cases where a County is split among 2 Districts: 1 Number of times a County is split among 4 Districts: 1 Number of times a County has been split into more than one district: 22 Total of County splits: 39 County Coun			
Number of subdivision splits which affect <i>no</i> population: County 0 Split Counts County Cases where a County is split among 2 Districts: 13 Cases where a County is split among 2 Districts: 1 Number of times a County has been split into more than one district: 22 Total of County splits: 39 County Cou			
County 0 Split Counts Split Counts County Cases where a County is split among 2 Districts: 1 Cases where a County is split among 4 Districts: 1 Number of times a County has been split into more than one district: 22 Total of County splits: 39 District Population Split Counties : BiBB 008 66.292 BIBB 012 89.255 BUTTS 010 3.405 CHATHAM 012 144.98 CHATHAM 012 124.938 CLARKE 009 17.178 COBB 010 99.326 COBB 011 337.811 COBB 013 176.20 COBB 013 171.620 DEKALB 006 178.647 COBB 013 171.620 DEKALB 006 178.647 OD 12 22.718 FAYETN 013 176.20 DEKALB 006 178.647 OD 12 22.718 </td <td>Number of subdivision splits which affect no popula</td> <td>ation:</td> <td></td>	Number of subdivision splits which affect no popula	ation:	
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Cases where a County is split among 2 Districts: 13 Cases where a County is split among 3 Districts: 3 Cases where a County is split among 4 Districts: 1 Number of times a County has been split into more than one district: 22 Total of County splits: 39 County District Population Split Counties : BIBB 008 66,292 BIBB 012 89,255 BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 001 140,990 CHATHAM 001 140,990 CHATHAM 001 140,990 CHATHAM 001 140,990 CLARKE 009 17,178 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 013 156,160 COBB 006 178,647 COBB 006 178,647 COBB 001 3,405 CLAYTON 013 1571,620 CLAYTON 013 171,620 DEKALB 006 178,647 COBB 006 178,647 COBB 006 178,647 COBB 006 178,647 COBB 006 178,647 COBB 001 22,27,18 FAYETTE 003 88,905 EFFINGHAM 012 22,7,18 FAYETTE 003 88,905 FAYETTE 003 88,905 FA	<u>County</u>		
Cases where a County is split among 3 Districts: 3 Cases where a County is split among 4 Districts: 1 Number of times a County has been split into more than one district: 22 Total of County splits: 39 County District Population Split Counties : BIBB 008 66,292 BIBB 012 89,255 BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 001 140,990 CHATHAM 011 2124,138 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 005 103,264 CLAYTON 005 103,264 COBB 011 33,781 COBB 011 33,781 COBB 011 337,811 COBB 013 171,620 DEKALB 006 178,647 COBB 006 178,647 COBB 006 178,647 COBB 001 12 22,718 FAYETTE 003 88,905 FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 007 122,206 PULTON 005 429,116	Cases where a County is split among 2 Districts: 13	CH	
Cases where a County is split among 4 Districts: 1 Number of times a County has been split into more than one district: 22 Total of County splits: 39 County District Population Split Counties : BIBB 0008 66,292 BIBB 0112 89,255 BUTTS 003 20,250 BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 001 140,990 CHATHAM 001 2,528 EFFINGHAM 001 2,528 EFFINGHAM 001 29,532 EFFINGHAM 001 29,532 E	Cases where a County is split among 3 Districts: 3		
Number of times a County has been split into more than one distrat: 22 District Population County District Population Split Counties : 008 66,292 BIBB 012 89,255 BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 001 140,990 CHATHAM 001 140,990 CLARKE 009 17,178 CLARKE 010 99,536 COBB 013 156,160 COBB 013 171,620 DEKALB 004 354,275 DEKALB 006 178,022 EFFINGHAM 001 29,532 EFFINGHAM 001 29,532 EFFINGHAM 001 29,532 EFFINGHAM 001 29,532 <	Cases where a County is split among 4 Districts: 1	NO NO	
Total of County splits: 39 District Population Split Counties : 008 66,292 BIBB 012 89,255 BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 011 140,990 CLARKE 009 17,178 CLARKE 009 17,178 CLARKE 010 99,536 CLARKE 009 17,178 CLARKE 010 99,536 CLARKE 010 99,536 CLARKE 010 99,536 CLARKE 010 99,536 COBB 013 156,160 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 011 29,532 EFFINGHAM 012 22,718 FAYETTE 013 17,662 FORSYTH 007 <	Number of times a County has been split into more than o	ne district: 22	
County District Population Split Counties : 008 66,292 BIBB 012 89,255 BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 011 140,990 CHATHAM 012 124,138 CLARKE 009 17,178 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 013 156,160 COBB 006 178,647 COBB 006 178,647 COBB 001 329,536 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 009 52,805 FULTON 005 429,116	Total of County splits: 39		
County District Population Split Counties : 008 66,292 BIBB 012 89,255 BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 011 140,990 CHATHAM 012 124,138 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 013 156,160 COBB 006 178,647 COBB 0011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 009 52,805 FULTON 005 429,116			
County District Population Split Counties : 008 66,292 BIBB 012 89,255 BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 010 140,990 CHATHAM 012 124,138 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 005 103,264 CLAYTON 013 156,160 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 001 29,532 EFFINGHAM 001 29,535 EFFINGHAM 001 <t< td=""><td></td><td></td><td></td></t<>			
County District Population Split Counties : 008 66.292 BIBB 012 89,255 BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 001 140,990 CHATHAM 012 124,138 CLARKE 009 17,178 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 013 156,160 COBB 0011 337,811 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 001 29,532 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 003 88,905 FAYETTE 003 88,905 FORSYTH 0007 122,706 FORSYTH 0005 429,116 <td>4P-0</td> <td></td> <td></td>	4P-0		
Split Counties : 008 66,292 BIBB 012 89,255 BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 001 140,990 CHATHAM 012 124,138 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 013 156,160 COBB 006 178,647 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 001 29,532 EFFINGHAM 001 29,532 FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 007 122,706 FORSYTH 009 52,805 FULTON	County	District	Population
BIBB 008 66,292 BIBB 012 89,255 BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 011 140,990 CHATHAM 012 124,138 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 013 156,160 COBB 006 178,647 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 006 178,647 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 006 178,022 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 003 88,905 FORSYTH 007 122,706 FORSYTH 007 122,706 FULTON 005 429,116 <td>Split Counties :</td> <td></td> <td></td>	Split Counties :		
BIBB 012 89,255 BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 001 140,990 CHATHAM 012 124,138 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 013 156,160 COBB 006 178,647 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 013 17,620 FORSYTH 007 122,706 FORSYTH 007 122,706 FORSYTH 009 52,805 FULTON 005 429,116	BIBB	008	66,292
BUTTS 003 20,250 BUTTS 010 3,405 CHATHAM 001 140,990 CHATHAM 012 124,138 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 013 156,160 COBB 006 178,647 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 013 17,662 FORSYTH 009 52,805 FULTON 005 429,116	BIBB	012	89,255
BUTTS 010 3,405 CHATHAM 001 140,990 CHATHAM 012 124,138 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 005 103,264 CLAYTON 013 156,160 COBB 006 178,647 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 001 29,532 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 007 122,706 FORSYTH 007 122,705 FORSYTH 009 52,805 FULTON 005 429,116	BUTTS	003	20,250
CHATHAM 001 140,990 CHATHAM 012 124,138 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 005 103,264 CLAYTON 013 156,160 COBB 006 178,647 COBB 006 178,647 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 013 17,622 FORSYTH 007 122,706 FORSYTH 009 52,805 FULTON 005 429,116	BUTTS	010	3,405
CHATHAM 012 124,138 CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 005 103,264 CLAYTON 013 156,160 COBB 006 178,647 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 001 29,532 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 007 122,706 FORSYTH 009 52,805 FULTON 005 429,116	CHATHAM	001	140,990
CLARKE 009 17,178 CLARKE 010 99,536 CLAYTON 005 103,264 CLAYTON 013 156,160 COBB 006 178,647 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 007 122,706 FORSYTH 009 52,805 FULTON 005 429,116	CHATHAM	012	124,138
CLARKE 010 99,536 CLAYTON 005 103,264 CLAYTON 013 156,160 COBB 006 178,647 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 001 29,532 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 007 122,706 FORSYTH 009 52,805 FULTON 005 429,116	CLARKE	009	17,178
CLAYTON005103,264CLAYTON013156,160COBB006178,647COBB011337,811COBB013171,620DEKALB004354,275DEKALB005159,596DEKALB006178,022EFFINGHAM00129,532EFFINGHAM01222,718FAYETTE00388,905FAYETTE01317,662FORSYTH007122,706FORSYTH00952,805FULTON005429,116	CLARKE	010	99,536
CLAYTON013156,160COBB006178,647COBB011337,811COBB013171,620DEKALB004354,275DEKALB005159,596DEKALB006178,022EFFINGHAM00129,532EFFINGHAM01222,718FAYETTE00388,905FAYETTE01317,662FORSYTH007122,706FORSYTH00952,805FULTON005429,116	CLAYTON	005	103,264
COBB 006 178,647 COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 001 29,532 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 007 122,706 FORSYTH 009 52,805 FULTON 005 429,116	CLAYTON	013	156,160
COBB 011 337,811 COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 001 29,532 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 007 122,706 FORSYTH 009 52,805 FULTON 005 429,116	COBB	006	178,647
COBB 013 171,620 DEKALB 004 354,275 DEKALB 005 159,596 DEKALB 006 178,022 EFFINGHAM 001 29,532 EFFINGHAM 012 22,718 FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 007 122,706 FORSYTH 009 52,805 FULTON 005 429,116	COBB	011	337,811
DEKALB004354,275DEKALB005159,596DEKALB006178,022EFFINGHAM00129,532EFFINGHAM01222,718FAYETTE00388,905FAYETTE01317,662FORSYTH007122,706FORSYTH00952,805FULTON005429,116	COBB	013	171.620
DEKALB005159,596DEKALB006178,022EFFINGHAM00129,532EFFINGHAM01222,718FAYETTE00388,905FAYETTE01317,662FORSYTH007122,706FORSYTH00952,805FULTON005429,116	DEKALB	004	354.275
DEKALB006178,022EFFINGHAM00129,532EFFINGHAM01222,718FAYETTE00388,905FAYETTE01317,662FORSYTH007122,706FORSYTH00952,805FULTON005429,116	DEKALB	005	159,596
EFFINGHAM00129,532EFFINGHAM01222,718FAYETTE00388,905FAYETTE01317,662FORSYTH007122,706FORSYTH00952,805FULTON005429,116	DEKALB	006	178.022
EFFINGHAM01222,718FAYETTE00388,905FAYETTE01317,662FORSYTH007122,706FORSYTH00952,805FULTON005429,116	EFFINGHAM	001	29.532
FAYETTE 003 88,905 FAYETTE 013 17,662 FORSYTH 007 122,706 FORSYTH 009 52,805 FULTON 005 429,116	EFFINGHAM	012	22,718
FAYETTE 013 17,662 FORSYTH 007 122,706 FORSYTH 009 52,805 FULTON 005 429,116	FAYETTE	003	88.905
FORSYTH 007 122,706 FORSYTH 009 52,805 FULTON 005 429,116	FAYETTE	013	17.662
FORSYTH 009 52,805 FULTON 005 429,116	FORSYTH	007	122.706
FULTON 005 429.116	FORSYTH	009	52.805
	FULTON	005	429,116

Case 1:18-cv-02869-JPBDocument 66-4Filed 05/01/19Page 93 of 306Plan Name:
Plan Type:ga_congress_2018_draft37_reportAdministrator:
User:User:

County	District	Population
Split Counties (continued):		
FULTON	006	335,306
FULTON	011	39,661
FULTON	013	116,498
GWINNETT	004	173,981
GWINNETT	007	569,277
GWINNETT	010	62,106
HENRY	010	106,289
HENRY	013	97,633
LOWNDES	002	42,988
LOWNDES	008	66,245
MUSCOGEE	002	168,274
MUSCOGEE	003	21,611
NEWTON	004	78,548
NEWTON	010	21,410
PICKENS	009	19,112
PICKENS	014	10,319

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Voter Registration by Race/Ethnicity*

Georgia U.S. House - Illustrative Plan 1

	Black not of Hispanic		
District	Origin	NH White	
001	22.68	% 73.23%	
002	50.93	% 46.39%	le al
003	21.51	% 75.09%	, corr
004	64.78	% 27.18%	
005	60.95	% 32.29%	C/F.
006	13.91	% 73.03%	100
007	23.19	% 55.20%)
008	26.13	% 70.38%	
009	6.32	% 88.34%	
010	22.25	% 72.06%	
011	17.04	% 0 74.81%	
012	55.35	% 42.11%	
013	64.72	% 27.72%	
014	9.87	% 86.38%	

Note: Calculations exclude voters whose race is unknown.

Calculations for districts 1,2,3, 8, 10, and 12 are based on a geocoded statewide list of December 2017 registered voters. Statistics for the remaining districts are based on the November 1, 2018 Georgia SOS report.

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Population Summary Report Georgia U.S. House - Illustrative Plan 2

		Any Part	% Any Part		Any Part	% Any Part		% Latino	NH White	% NH
Population	Dev.	Black	Black	18+_Pop	Black 18+	Black 18=	Latino 18+	18+	18 +	White 18 +
691975	0	169578	24.51%	519020	118026	22.74%	27973	5.39%	361504	69.65%
691976	1	344658	49.81%	519842	244488	47.03%	22376	4.30%	245349	47.20%
691975	0	165629	23.94%	508393	113562	22.34%	21848	4.30%	361508	71.11%
691976	1	408519	59.04%	503508	284007	56.41%	41041	8.15%	155926	30.97%
691976	1	418300	60.45%	541900	312205	57.61%	37210	6.87%	170219	31.41%
691975	0	93036	13.44%	519046	67479	13.00%	62253	11.99%	337354	65.00%
691975	0	133308	19.26%	489868	87223	17.81%	82112	16.76%	260287	53.13%
691976	1	183418	26.51%	517522	128882	24,90%	27725	5.36%	350274	67.68%
691975	0	49740	7.19%	520856	34398	6.60%	46597	8.95%	430388	82.63%
691975	0	142993	20.66%	518033	99241	19.16%	22159	4.28%	379329	73.22%
691975	0	115261	16.66%	512598	79862	15.58%	47452	9.26%	366675	71.53%
691974	-1	372162	53.78%	521679	262142	50.25%	15823	3.03%	234811	45.01%
691976	1	394150	56.96%	495652	267293	53.93%	43142	8.70%	172355	34.77%
691974	-1	63346	9.15%	508184	41981	8.26%	41291	8.13%	416535	81.97%
					4P					
9687653		3054098	31.53%	7196101	2140789	29.75%	539002	7.49%	4242514	58.96%
				OFTRIV						
	 'opulation 691975 691976 691976 691976 691975 691975 691975 691975 691975 691975 691976 	Population Dev. 691975 0 691976 1 691975 0 691976 1 691976 1 691976 1 691975 0 691975 0 691975 0 691975 0 691975 1 691975 0 691975 1 691975 1 691976 1 691975 0 691975 0 691975 1 691976 1 691974 -1 9687653 9687653	YopulationDev.Any Part Black69197501695786919761344658691976134465869197614085196919761408519691976141830069197509303669197501330869197501330869197501429936919750115261691974-1372162691974-16334696876533054098	YopulationDev.Any Part Black% Any Part Black691975016957824.51% 691976691976134465849.81% 691975691976134465849.81% 691975691976140851959.04% 691976691976141830060.45% 69197569197509303613.44% 691975691975013330819.26% 691975691975013330819.26% 691975691975014299320.66% 691975691975011526116.66% 691974691976139415056.96% 691974691974-1633469.15%9687653305409831.53%	Any Part 'opulationMay Part BlackMay Part Black18+_Pop691975016957824.51% 519020519020691976134465849.81% 519842519842691975016562923.94% 508393508393691976140851959.04% 503508503508691976141830060.45% 54190054190069197509303613.44% 51904651904669197501330819.26% 4898684898686919761183418 26.51%5175226919750142993 20.66%518033691975011526116.66% 512598691974-137216253.78% 521679691974-1633469.15%9687653305409831.53%7196101	YopulationDev.Any Part Black% Any Part BlackAny Part BlackAny Part Black691975016957824.51%519020118026691976134465849.81%519842244488691975016562923.94%508393113562691976140851959.04%503508284007691976141830060.45%54190031220569197509303613.44%51904667479691975013330819.26%48986887223691975013330819.26%48986887223691975014299320.66%51803399241691975011526116.66%51259879862691974-137216253.78%521679262142691976139415056.96%495652267293691974-1633469.15%508184419819687653305409831.53%71961012140789	Any Part 'opulationMay Part BlackMay Part BlackAny Part BlackMay Part Black 18+May Part Black 18=691975016957824.51%51902011802622.74%691976134465849.81%51984224448847.03%691975016562923.94%50839311356222.34%691976140851959.04%50350828400756.41%691976141830060.45%54190031220557.61%69197509303613.44%5190466747913.00%69197501330819.26%4898688722317.81%691976118341826.51%51752212888224.90%6919750497407.19%520856343986.60%691975011526116.66%5125987986215.58%691974-137216253.78%52167926214250.25%691976139415056.96%49565226729353.93%691974-1633469.15%508184419818.26%9687653305409831.53%7196101214078929.75%	Any Part Population% Any Part BlackAny Part Black% Any Part Black 18+% Any Part Black 18+% Any Part Black 18+Latino 18+691975016957824.51%51902011802622.74%27973691976134465849.81%51984224448847.03%22376691975016562923.94%50839311356222.34%21848691976140851959.04%50350828400756.41%41041691976141830060.45%54190031220557.61%3721069197509303613.44%5190466747913.00%62253691975013330819.26%4898688722317.81%82112691976118341826.51%51752212888224.90%277256919750497407.19%520856343986.60%46597691975011526116.66%5125987986215.58%47452691974-137216253.78%52167926214250.25%15823691976139415056.96%49565226729353.93%43142691974-1633469.15%508184419818.26%412919687653305409831.53%7196101214078929.75%539002	Any Part PopulationAny Part BlackAny Part BlackAny Part Black% Any Part Black% Any Part Black% Any Part Black% Latino 18+691975016957824.51%51902011802622.74%279735.39%691976134465849.81%51984224448847.03%223764.30%691975016562923.94%50839311356222.34%218484.30%691976140851959.04%50350828400756.41%410418.15%691976141830060.45%54190031220557.61%372106.87%69197509303613.44%5190466747913.00%6225311.99%691975013330819.26%4898688722317.81%8211216.76%691975013330819.26%4898688722317.81%8211216.76%691975014299320.66%5180339924119.16%221594.28%691975011526116.66%5125987986215.58%474529.26%691974-137216253.78%52167926214250.25%158233.03%691974-1633469.15%508184419818.26%412918.13%9687653305409831.53%7196101214078929.75%5390027.49%	Any Part Population% Any Part Black% Any Part Black% Any Part Black 18+% Any Part Black 18+% Latino Black 18=NH White 18+691975016957824.51%51902011802622.74%279735.39%361504691976134465849.81%51984224448847.03%223764.30%245349691975016562923.94%50839311356222.34%218484.30%361508691976140851959.04%50350828400756.41%410418.15%155926691976141830060.45%54190031220557.61%372106.87%17021969197509303613.44%5190466747913.00%6225311.99%337354691975013330819.26%4898688722317.81%8211216.76%2602876919750497407.19%520856343986.60%465978.95%430388691975014299320.66%5125987986215.58%474529.26%366675691974-137216253.78%52167926214250.25%158233.03%234811691976139415056.96%49565226729353.93%431428.70%172355691974-1633469.15%508184419818.26%412918.13%416535<

Political Subdivisions Split Between Districts

Monday December 3, 2018		11:06 AM
Number of subdivisions not split:		
County 141		
Number of subdivisions split into more than one distr	ict:	
County 18		
Number of subdivision splits which affect <i>no</i> populati	ion:	
County 0		
County		
Г	<i>Îla</i>	
Spl	lit Counts	
<u>County</u>		
Cases where a County is split among 2 Districts: 14	Cr	
Cases where a County is split among 3 Districts: 3	100	
Cases where a County is split among 4 Districts: 1		
Number of times a County has been split into more than one	e district: 23	
Total of County splits: 41	NO	
Ch.		
County	District	Population
Solit Counties		1
BIBB	008	65 801
BIBB	012	89.656
BUTTS	003	5 889
BUTTS	010	17 766
CHATHAM	001	140 990
СНАТНАМ	012	124 138
CLARKE	009	17 178
CLARKE	010	99 536
CLAYTON	005	103 264
CLAYTON	013	156 160
COBB	006	178 647
COBB	011	337.811
COBB	013	171.620
DEKALB	004	354.275
DEKALB	005	159,596
DEKALB	006	178,022
EFFINGHAM	001	29,532
EFFINGHAM	012	22,718
FAYETTE	003	88,905
FAYETTE	013	17,662
FORSYTH	007	122,706
FORSYTH	009	52,805
FULTON	005	429,116

Case 1:18-cv-02869-JPB Document 66-4 Filed 05/01/19 Page 105 of 306 Plan Name: Plan Type: ga_congress_2018_draft36_report Administrator: User:

County	District	Population
Split Counties (continued):		
FULTON	006	335,306
FULTON	011	39,661
FULTON	013	116,498
GWINNETT	004	173,981
GWINNETT	007	569,277
GWINNETT	010	62,106
HENRY	003	106,289
HENRY	013	97,633
LOWNDES	002	53,615
LOWNDES	008	55,618
MUSCOGEE	002	169,990
MUSCOGEE	003	19,895
NEWTON	004	78,548
NEWTON	010	21,410
PEACH	002	15,030
PEACH	008	12,665
PICKENS	009	19,112
PICKENS	014	10,319

REPRESED FROM DEMOCRACYDOCKET.COM













Voter Registration by Race/Ethnicity*

Georgia U.S. House - Illustrative Plan 2

	Black not of Hispanic		
District	Origin	NH White	
001	22.68	3% 73.23%	,
002	51.10	9% 46.16%	A
003	23.83	3% 72.10%	
004	64.78	3% 27.18%	
005	60.95	32.29%	C/F.
006	13.91	% 73.03%	100
007	23.19	9% 55.20%	Č,
008	25.98	3%	
009	6.32	2% 88.34%	,
010	20.07	74.92%	,
011	17.04	74.81% 🔊	,
012	55.27	/% 42.18%	,
013	64.72	27.72%	,
014	9.87	% 86.38%	

Note: Calculations exclude voters whose race is unknown.

Calculations for districts 1,2,3, 8, 10, and 12 are based on a geocoded statewide list of December 2017 registered voters. Statistics for the remaining districts are based on the November 1, 2018 Georgia SOS report.

REPRESENT FROM DEMOCRACIOOCIET.COM

Case 1:18-cv-02869-JPB Document 66-4 Filed 05/01/19 Page 114 of 306 2005 Plan Plan Name: Plan Type:

Date: 12/3/2018 Time: 11:13:45AM Administrator:

Measures of Compactness

Reock

01 0.49 02 0.46 03 0.54 04 0.45 05 0.49	
02 0.46 03 0.54 04 0.45 05 0.49	
03 0.54 04 0.45 05 0.49	
04 0.45 05 0.49	
05 0.49	
06 0.46	
07 0.58	
08 0.28	
09 0.38	
10 0.32	
11 0.55	
12 0.42	
13 0.39	
Sum N/A Min 0.28 Max 0.58 Mean 0.45 Std. Dev. 0.09	

Case 1:18-cv-02869-JPB Document 66-4 Filed 05/01/19 Page 115 of 306 2005 Plan Plan Name: Plan Type: Date: 12/3/2018 Time: 11:15:26AM Administrator:

0.26
0.28
0.21
0.22
0.26
0.29
0.23
0.17
0.40
0.20
0.36
0.20
0.12
REPRESENTED FROM THE OCEAN O.12 0.40 0.25 0.08

Case 1:18-cv-02869-JPB Document 66-4 Filed 05/01/19 Page 116 of 306 2012 Plan Plan Name: Plan Type: Date: 12/3/2018

Time: 11:27:13AM Administrator:

Reock		
001	0.39	
002	0.44	
003	0.55	
004	0.54	
005	0.52	
006	0.49	
007	0.45	
008	0.33	
009	0.36	
010	0.52	all and a second s
011	0.50	
012	0.41	
013	0.38	
014	0.45	
Sum	N/A	A COL
Min	0.33	CCC
Max	0.55	
Mean	0.45	
Std. Dev.	0.07	AL.
		DFR-0
		CHEVIL.
		EL CONTRACTOR OF
		X-

Case 1:18-cv-02869-JPB Document 66-4 Filed 05/01/19 Page 117 of 306 2012 Plan Plan Name: Plan Type: Date: 12/3/2018 Time: 11:27:50AM Administrator:

Polsby	
001	0.22
002	0.31
003	0.28
004	0.27
005	0.37
006	0.27
007	0.26
008	0.16
009	0.30
010	0.27
011	0.28
012	0.18
013	0.16
014	0.34
Sum	N/A
Min	0.16
Max	0.37
Mean	0.26
Std. Dev.	0.06
	RETRIEVEDEN
	5

Case 1:18-cv-02869-JPB Document 66-4 Filed 05/01/19 Page 118 of 306 Illustrative Plan 1 Plan Name: Plan Type: Date: 12/3/2018 Time: 11:43:46AM Administrator:

0.48	
0.42	
0.37	
0.54	
0.52	
0.49	
0.45	
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0.36	
0.26	Nr.
0.50	
0.35	
0.38	
0.45	NOC COL
N/A 0.26 0.54 0.42 0.08	REFRENED FROM DEMOCRACY
_	0.42 0.37 0.54 0.52 0.49 0.45 0.35 0.36 0.26 0.35 0.38 0.45 N/A 0.26 0.54 0.42 0.08

Case 1:18-cv-02869-JPB Document 66-4 Filed 05/01/19 Page 119 of 306 Illustrative Plan 1 Plan Name: Plan Type: Date: 12/3/2018 Time: 11:44:18AM Administrator:

Polsby	
001	0.25
002	0.19
003	0.22
004	0.27
005	0.37
006	0.27
007	0.26
008	0.14
009	0.30
010	0.16
011	0.28
012	0.16
013	0.16
014	0.39
Sum Min Max	0.14 0.37
Mean	0.24
Std. Dev.	LROM 0.07
	RETRIEVED

Case 1:18-cv-02869-JPB Document 66-4 Filed 05/01/19 Page 120 of 306 Illustrative Plan 2 Plan Name: Plan Type: Date: 12/3/2018 Time: 11:49:33AM Administrator:

0.48	
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0.36	
0.39	N N
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N/A 0.34 0.54 0.44 0.07	RETRIEVED FROM DEMOCRACY.
	0.48 0.41 0.49 0.54 0.52 0.49 0.45 0.35 0.36 0.39 0.50 0.34 0.38 0.45 N/A 0.34 0.54 0.44 0.07

Case 1:18-cv-02869-JPB Document 66-4 Filed 05/01/19 Page 121 of 306 Illustrative Plan 2 Plan Name: Plan Type: Date: 12/3/2018 Time: 11:53:45AM Administrator:

Polsby	
001	0.25
002	0.22
003	0.26
004	0.27
005	0.37
006	0.27
007	0.26
008	0.15
009	0.30
010	0.24
011	0.28
012	0.17
013	0.16
014	0.3P
Sum Min Max Mean	N/A 0.15 0.37 0.25
Siu. Dev.	REFRIEVED FRONT 0.00

Selected Socio-Economic Data

Congressional District 12 (115th Congress), Georgia

NH Any Part African American vis-à-vis NH White

Data Set: 2017 American Community Survey 1-Year Estimates

<u>17-Nov-18</u>
Population by Age

Congressional District 12 (115th Congress), Georgia



Household Type for Population in Households

Congressional District 12 (115th Congress), Georgia



Marital Status for the Population 15 Years and Over

Congressional District 12 (115th Congress), Georgia



Educational Attainment for the Population 25 Years and Older

Congressional District 12 (115th Congress), Georgia



Veterans in the Civilian Population 18 Years and Over

Congressional District 12 (115th Congress), Georgia



Disability by Age -- Civilian Noninstitutionalized Population

Congressional District 12 (115th Congress), Georgia



Geographical Mobility in the Past Year (Population 1 Year and Over)

Congressional District 12 (115th Congress), Georgia



Speak English Less than "Very Well" (Population 5 Years and Over)



Congressional District 12 (115th Congress), Georgia

Employment Status for the Population 16 years and over

Congressional District 12 (115th Congress), Georgia



Unemployment (Civilian Labor Force -- Ages 16 and Over)





Means of Transportation to Work (Workers 16 Years and Over)

Congressional District 12 (115th Congress), Georgia



Occupation for the Civilian Employed 16 Years and Over Population

Congressional District 12 (115th Congress), Georgia



Median Household Income in the Past 12 Months

Congressional District 12 (115th Congress), Georgia



Receipt of Food Stamps/SNAP in the Past 12 Months by Household





Median Family Income in the Past 12 Months

Congressional District 12 (115th Congress), Georgia



Per capita Income in the Past 12 Months

Congressional District 12 (115th Congress), Georgia



Lack of Health Insurance Coverage -- Civilian Noninstitutionalized Population



Congressional District 12 (115th Congress), Georgia

Family Households Below Poverty in the Past 12 Months



Congressional District 12 (115th Congress), Georgia

Female-headed Households with Related Children Below Poverty in the Past 12 Months



Congressional District 12 (115th Congress), Georgia

Home Owners and Renters by Household

Congressional District 12 (115th Congress), Georgia



Population Below Poverty in the Past 12 Months

Congressional District 12 (115th Congress), Georgia



No Vehicles Available by Household

Congressional District 12 (115th Congress), Georgia



More than One Person per Room (Crowding) by Household





Median Home Value -- Owner-Occupied





Rent as a Percentage of Household Income (30% or more) -- Renter-Occupied



Congressional District 12 (115th Congress), Georgia

Computers and Internet Use

Congressional District 12 (115th Congress), Georgia



U.S. Cen	sus Bureau ^{02869-JPB} Document 66-4 Filed 05/01/19 Page 14D of 306
\mathbf{FactF}	inder vew mexico oklahoma arkansas
S0201	SELECTED POPULATION PROFILE IN THE UNITED STATES
	2017 American Community Survey 1-Year Estimates

Note: This is a modified view of the original table.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

			COM	
Subject	Congressional District 12 (115th Congress), Georgia			
	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino	
	Estimate	Estimate	Estimate	
TOTAL NUMBER OF RACES REPORTED				
Total population	722,937	392,026	264,045	
One race	97.1%	100.0%	95.3%	
Two races	2.6%	(X)	4.0%	
Three races	0.2%	(X)	0.2%	
Four or more races	0.2%	(X)	0.5%	
SEX AND AGE				
Total population	722,937	392,026	264,045	
Male	49.2%	49.8%	48.4%	
Female	50.8%	50.2%	51.6%	
Under 5 years	6.3%	5.4%	6.8%	
5 to 17 years	17.3%	14.6%	20.1%	
18 to 24 years	11.9%	10.0%	13.7%	
25 to 34 years	13.3%	12.9%	13.3%	
35 to 44 years	12.1%	12.4%	12.0%	
45 to 54 years	12.4%	12.8%	12.3%	
55 to 64 years	12.5%	13.8%	11.3%	
65 to 74 years	8.6%	10.8%	6.6%	
75 years and over	5.6%	7.2%	4.0%	
Median age (years)	35.9	40.9	31.9	
18 years and over	76.3%	80.0%	73.1%	
21 years and over	70.6%	75.2%	66.6%	

Total population White alone, not **Black or African Hispanic or** American alone Latino or in combination with one or more other races, not Hispanic or Latino Estimate Estimate Estimate 62 years and over 17.6% 21.8% 13.8% 65 years and over 14.1% 18.0% 10.6% Under 18 years 171,020 78,515 70,978 Male 50.6% 50.5% 51.8% Female 49.4% 49.5% 48.2% 18 years and over 551,917 313,511 193,067 Male 48.8% 49.6% 47.2% Female 50.4% 52.8% 51.2% 18 to 34 years 182,198 89,883 71,086 Male 52.4% 53.1% 50.7% Female 47.6% 46.9% 49.3% 35 to 64 years 267,541 152,999 93,881 Male 48.7% 49.7% 46.7% Female 50.3% 51.3% 53.3% 65 years and over 102,178 70,629 28,100 Male 42.9% 44.9% 39.6% Female 57.1% 55.1% 60.4% RELATIONSHIP Population in households 687,468 375,936 247,763 Householder or spouse 52.2% 59.6% 44.0% Child 33.4% 27.6% 40.0% Other relatives 8.5% 6.5% 11.7% Nonrelatives 5.8% 6.3% 4.2% Unmarried partner 1.9% 1.7% 2.1% HOUSEHOLDS BY TYPE Households 246,483 149,948 80,554 Family households 64.7% 63.9% 65.4% With own children of the householder under 18 27.6% 25.0% 29.8% years Married-couple family 45.6% 51.5% 33.9% With own children of the householder under 18 17.3% 18.5% 13.7% years Female householder, no husband present, family 14.6% 8.7% 25.9% With own children of the householder under 18 8.1% 4.7% 13.9% years Nonfamily households 35.3% 36.1% 34.6% Male householder 16.1% 16.7% 15.2% Living alone 12.7% 13.1% 12.4% Not living alone 3.4% 3.6% 2.8% Female householder 19.2% 19.4% 19.4% Living alone 17.0% 16.9% 17.6% Not living alone 2.2% 2.5% 1.8% Average household size 2.79 2.61 2.97 Average family size 3.52 3.27 3.84

Stepset 1:18-cv-02869-JPBngressional District 12:415th Generative Page 150 of 306

Street 1:18-cv-02869-J Sengressional District 12:415th Gengress 0 1719 ia Page 151 of 306

	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino	
	Estimate	Estimate	Estimate	
MARITAL STATUS		000.440	004 700	
Now married except separated	579,879	326,449	204,796	
Widowed	43.2%	50.4%	31.0%	
Divorced	11 0%	13.5%	10.6%	
Separated	2.2%	1 90/	2.0%	
Never married	36.1%	27.2%	49.1%	
Male 15 years and over	000 700	404 000	07.004	
Now married except separated	283,728	161,382	97,331	
Widowed	44.2%	51.8%	31.7%	
Divorced	2.4%	2.9%	2.2%	
Separated	10.2%	12.0%	9.0%	
Never married	41.1%	31.5%	54.8%	
			A	
New married except experted	296,151	165,067	107,465	
Widewod	42.3%	49.0%	30.4%	
Diversed	10.6%	11.3%	10.2%	
Separated	13.5%	15.0%	12.2%	
Never married	2.3%	23.0%	3.4%	
		- CP-1		
SCHOOL ENROLLMENT		NO		
Population 3 years and over enrolled in school	197,679	92,541	83,558	
Nursery school, preschool	6.0%	5.1%	6.8%	
Kindergarten	4.8%	4.5%	5.0%	
Elementary school (grades 1-8)	38.9%	39.1%	38.2%	
High school (grades 9-12)	20.6%	19.2%	21.7%	
College or graduate school	29.6%	32.2%	28.3%	
Male 3 years and over enrolled in school	96.078	46.070	39.580	
Percent enrolled in kindergarten to grade 12	67.8%	63.8%	72.2%	
Percent enrolled in college or graduate school	26.3%	30.5%	23.0%	
Female 3 years and over enrolled in school	101.601	46.471	43.978	
Percent enrolled in kindergarten to grade 12	61.1%	61.7%	58.3%	
Percent enrolled in college or graduate school	32.7%	33.8%	33.0%	
EDUCATIONAL ATTAINMENT				
Population 25 years and over	166 169	27/ 121	157 022	
Less than high school diploma	16.6%	11 5%	20.7%	
High school graduate (includes equivalencv)	32.6%	33.4%	34.6%	
Some college or associate's degree	29.3%	30.0%	29.8%	
Bachelor's degree	13.1%	15.0%	9.5%	
Graduate or professional degree	8.4%	10.2%	5.5%	
High school graduate or higher	00.404	00.5%	70.00/	
Male, high school graduate or higher	83.4%	88.5%	79.3%	
Female, high school graduate or higher	80.2%	87.0%	/4.0%	
Bachelor's degree or higher	86.3%	89.9%	83.9%	
Male bachelor's degree or higher	21.5%	25.2%	15.0%	
Female, bachelor's degree or higher	19.4%	23.5%	12.3%	
	23.3%	26.8%	17.3%	

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
FERTILITY			
Women 15 to 50 years	172,254	87,462	67,773
Women 15 to 50 years who had a birth in the past 12 months	11,161	5,328	4,345
Unmarried women 15 to 50 years who had a birth in the past 12 months	5,322	1,656	3,089
As a percent of all women with a birth in the past 12 months	47.7%	31.1%	71.1%
RESPONSIBILITY FOR GRANDCHILDREN UNDER 18 YEARS			
Population 30 years and over	413,118	248,006	137,239
Grandparents living with grandchild(ren)	4.6%	3.4%	6.1%
Grandparents responsible for grandchildren as a percentage of living with grandchildren	36.8%	35.7%	44.4%
VETERAN STATUS			
Civilian population 18 years and over	541 691	307 081	190 865
Civilian veteran	10.7%	11.0%	11.5%
	10.17,0	11.070	
DISABILITY STATUS		Ċ	Ě
Total civilian noninstitutionalized population	692.712	377,498	251.657
With a disability	15.4%	16.4%	15.5%
		28	
Civilian noninstitutionalized population under 18 years	170,823	78,479	70,879
With a disability	4.4%	3.9%	5.0%
	lo_		
Civilian noninstitutionalized population 18 to 64 years	422.957	230,483	153,589
With a disability	14.1%	14.1%	15.5%
	L'NY		
Civilian noninstitutionalized population 65 years and	98,932	68,446	27,189
With a disability	40.0%	38.5%	43.4%
RESIDENCE 1 YEAR AGO	7	000000	
	714,243	388,266	261,087
Different house in the U.S.	84.5%	86.3%	82.1%
Same county	15.1%	13.3%	17.7%
Different county	8.0%	0.1%	7.00
Same state	/.1% ///	1.3%	/.0%
Different state	4.4%	4.2%	4.0%
Abroad	0.4%	3.1% 0.4%	0.2%
	0.478	0.470	0.270
PLACE OF BIRTH, CITIZENSHIP STATUS AND YEAR OF ENTRY			
Native	689,826	385,334	260,708
Male	49.2%	50.1%	48.5%
Female	50.8%	49.9%	51.5%
Foreign born	33,111	6,692	3,337
Male	48.9%	32.9%	37.6%
Female	51.1%	67.1%	62.4%
			1

	Total population	White alone, not	Black or African
		Hispanic or Latino	American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
Foreign born; naturalized U.S. citizen	14,062	2,878	2,332
Male	41.7%	36.3%	31.1%
Female	58.3%	63.7%	68.9%
Foreign horn: not a LLS_citizen	10.040	2.014	1.005
Male	54.29/	3,014	1,003 52,6%
Female	45.8%	69.6%	47.4%
Population born outside the United States	33,111	6,692	3,337
Entered 2010 or later	29.4%	32.9%	9.1%
Entered 2000 to 2009	28.7%	18.8%	26.2%
Entered before 2000	41.9%	48.2%	64.8%
WORLD REGION OF BIRTH OF FOREIGN BORN			
Foreign-born population excluding population born at	33,111	6,692	3,337
sea Europe	10.3%	48.6%	CON N
Asia	26.9%	9.1%	N N
Africa	5.2%	8.2%	N
Oceania	0.2%	1.2%	N
Latin America	53.4%	18.3%	N
Northern America	4.0%	14.6%	N
ANGUAGE SPOKEN AT HOME AND ABILITY TO		EM	
Population 5 years and over	677,170	370,938	246,118
English only	92.3%	97.7%	97.7%
Language other than English	7.7%	2.3%	2.3%
Speak English less than "very well"	2.8%	0.6%	0.3%
	2 ¹		
EMPLOYMENT STATUS			
Population to years and over	569,890	322,093	200,711
Civilian Jahar force	57.5%	56.6%	57.4%
	55.7%	54.6%	56.3%
	51.8%	51.9%	50.0%
Unemployed	4.0%	2.7%	6.2%
Onemployment Rate	7.1%	4.9%	11.1%
Armed Forces	1.8%	2.0%	1.1%
NUL III IADUI IOICE	42.5%	43.4%	42.6%
Females 16 years and over	291,350	163,022	105,588
In labor force	52.8%	50.2%	57.4%
Civilian labor force	52.2%	49.7%	56.9%
Employed	48.6%	47.1%	51.8%
Unemployed	3.6%	2.6%	5.1%
Unemployment Rate	6.9%	5.3%	9.0%
Workers 16 years and over	200.250	174.450	00.005
Car truck or van - drove alone	298,359	171,158	99,065
Car truck or van - carpooled	82.2%	85.5%	79.4%
Public transportation (evoluting toxicab)	9.3%	7.6%	9.3%
	0.7%	0.5%	1.4%
waited	1.8%	1.6%	2.3%

	Total namulation	White elements	
	Total population	White alone, not Hispanic or Latino	Black of African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
Other means	2.9%	1.1%	5.8%
Worked at home	3.0%	3.7%	1.7%
Mean travel time to work (minutes)	23.2	23.4	23.4
Civilian employed population 16 years and over	294 950	167 276	100 389
Management, business, science, and arts	32.1%	37.7%	26.4%
occupations	32.170	0/0	20.170
Service occupations	20.3%	18.3%	22.5%
Sales and onice occupations	21.1%	20.7%	22.1%
occupations	11.4%	12.0%	8.8%
Production, transportation, and material moving	15.0%	11.3%	20.2%
occupations			
Male civilian employed population 16 years and over	153,350	90,441	45,720
Management, business, science, and arts	26.7%	31.8%	20.7%
Service occupations	19.0%	16.7%	19.8%
Sales and office occupations	11.6%	13.0%	9.8%
Natural resources, construction, and maintenance	20.3%	21.3%	17.8%
occupations Production transportation and material moving	00.40/		04.00(
occupations	22.4%		31.9%
Female civilian employed population 16 years and	141,600	76,835	54,669
Management, business, science, and arts	38.0%	44.5%	31.1%
Service occupations	21.7%	20.3%	24.7%
Sales and office occupations	31.4%	20.3%	32.4%
Natural resources, construction, and maintenance	1.7%	1.1%	1.3%
occupations			1.070
occupations	7.1%	4.3%	10.5%
NDUSTRY			
Civilian employed population 16 years and over	294 950	167 276	100.389
Agriculture, forestry, fishing and hunting, and mining	2.2%	2.0%	1.3%
Construction	2.270	2.070	1.070
Construction	8.0%	10.3%	3.6%
Wholesele trade	10.3%	8.2%	13.0%
VVII0lesale trade	2.1%	2.2%	1.7%
Transportation and warehousing, and utilities	11.1%	10.0%	13.2%
Internation and warehousing, and utilities	6.0%	6.5%	5.9%
Finance and insurance, and real estate and restel	1.4%	1.4%	1.5%
and leasing	4.6%	6.2%	2.6%
Professional, scientific, and management, and	8.8%	8.2%	8.0%
Educational services, and health care and social	24.7%	25.6%	25.2%
Assistance			10.011
accommodation and food services	10.1%	7.9%	12.6%
Other services (except public administration)	5.2%	5.8%	4.8%
Public administration	5.6%	5.7%	6.5%
ULASS OF WORKER			

294,950

167,276

100,389

Civilian employed population 16 years and over

et 1:18-cv-02869-Jegressienal District 2:415th ferences 0 1719 age 155 of 306

	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
Private wage and salary workers	74.3%	72.4%	75.5%
Government workers	20.1%	20.6%	21.2%
Self-employed workers in own not incorporated	5.5%	6.9%	3.2%
business Unpaid family workers	0.1%	0.1%	0.1%
INCOME IN THE PAST 12 MONTHS (IN 2017 INFLATION-ADJUSTED DOLLARS)			
Modian household income (dollars)	246,483	149,948	80,554
With corrige	43,177	50,324	34,492
Mean corrigge (dellare)	73.8%	71.7%	75.6%
With Social Socurity income	62,897	70,132	51,568
Moon Social Security income (dellare)	33.7%	36.9%	30.3%
With Supplemental Security Income	17,084	18,576	14,046
Macon Supplemental Security Income	6.6%	5.2%	9.5%
With each public assistance income (dollars)	9,717	10,268	9,243
Mean sach public assistance income	1.5%	1.2%	2.2%
With ratirement income	2,903	2,446	3,223
With retirement income	18.9%	21.3%	15.5%
Wean retirement income (dollars)	23,760	23,802	24,353
With Food Stamp/SNAP benefits	17.0%	11.1%	27.8%
Families	159,481	95,782	52,713
Merried acurate ferrily	56,567	65,341	41,410
Madian income (dellare)	70.5%	80.7%	51.8%
Mole bouebelder, pe epouse present family	71,397	74,417	65,713
Madian income (dellare)	7.0%	5.7%	8.6%
Formale householder, no husband present, family	37,553	39,092	33,637
Female nousenoider, no nusband present, ramily	22.5%	13.6%	39.6%
Median income (dollars)	25,893	26,035	26,801
Individuals	722,937	392,026	264,045
Per capita income (dollars)	22,161	26,835	16,839
With earnings for full-time, year-round workers:			
Male	119,398	74,728	32,821
Female	92,132	48,627	36,531
Mean earnings (dollars) for full-time, year-round			
workers:	54 162	50 721	17.554
Female	40 747	45 706	25.040
Median earnings (dollars) full-time, year-round	40,747	45,700	55,049
workers:			
Male	40,965	47,184	35,921
Female	32,407	36,805	29,834
HEALTH INSURANCE COVERAGE			
Civilian noninstitutionalized population	692,712	377,408	251,657
With private health insurance	63.1%	70.3%	55.7%
With public coverage	34.6%	32.6%	38.9%
No health insurance coverage	13.6%	11.5%	13.7%
POVERTY RATES FOR FAMILIES AND PEOPLE FOR WHOM POVERTY STATUS IS DETERMINED All families	14.3%	8 7%	21.4%
With related children of the householder under 18	22.00/	15 70/	21.4%
years With related children of the householder under 5	22.370	10.6%	20.0%
years only	20.0%	19.0%	20.370
Married-couple family	5.9%	4.6%	6.1%

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
With related children of the householder under 18	9.2%	7.4%	6.6%
With related children of the householder under 5	12.0%	7 3%	N
years only	12.070	1.570	
Female householder, no husband present, ramily	36.8%	28.7%	38.7%
With related children of the householder under 18	46.5%	38.9%	47.5%
With related children of the householder under 5 years only	46.5%	57.1%	33.4%
All people	19.7%	14.3%	26.2%
Under 18 years	26.9%	15.9%	36.7%
Related children of the householder under 18 years	26.7%	15.5%	36.6%
Related children of the householder under 5 years	33.6%	19.0%	48.2%
Related children of the householder 5 to 17 years	24.2%	14.2%	32.6%
18 years and over	17.4%	13.9%	22.1%
18 to 64 years	18.7%	15.4%	22.6%
65 years and over	11.7%	9.0%	19.6%
People in families	16.0%	9.1%	23.5%
Unrelated individuals 15 years and over	36.4%	34.8%	41.2%
HOUSING TENURE			
Occupied housing units	246,483	149,948	80,554
Owner-occupied housing units	63.0%	70.8%	50.1%
Renter-occupied housing units	37.0%	29.2%	49.9%
Average household size of owner-occupied unit	2.81	2.65	3.02
Average household size of renter-occupied unit	2.75	2.51	2.91
UNITS IN STRUCTURE	,2 ⁰		
Occupied housing units	246,483	149,948	80,554
1-unit, detached or attached	67.2%	71.9%	61.9%
2 to 4 units	6.5%	3.0%	13.1%
5 or more units	8.2%	5.9%	12.5%
Mobile home, boat, RV, van, etc.	18.0%	19.2%	12.5%
YEAR STRUCTURE BUILT			
Occupied housing units	246,483	149,948	80,554
Built 2014 or later	3.3%	3.7%	2.4%
Built 2010 to 2013	4.1%	4.3%	4.1%
Built 2000 to 2009	16.8%	16.2%	17.1%
Built 1980 to 1999	36.3%	36.7%	33.4%
Built 1960 to 1979	24.1%	23.5%	26.5%
Built 1940 to 1959	10.4%	9.6%	12.9%
Built 1939 or earlier	4.9%	5.9%	3.6%
VEHICLES AVAILABLE			
Occupied housing units	246,483	149,948	80,554
None	7.3%	4.6%	12.2%
	92.7%	95.4%	87.8%
HOUSE HEATING FUEL			
	246,483	149,948	80,554
Gas	23.5%	20.4%	29.7%
	75.3%	78.5%	69.3%
All Other rules	0.5%	0.5%	0.4%
	0.7%	0.7%	0.5%
	040 400	440.042	00.554
	∠40.483	149.948	00.554

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino	-
	Estimate	Estimate	Estimate	
No telephone service available	2.3%	2.4%	2.0%	
1.01 or more occupants per room	2.3%	1.0%	3.3%	
SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN THE PAST 12 MONTHS Housing units with a mortgage (excluding units where	81,806	53,653	24,141	
SMOC cannot be computed)				
Less than 30 percent	76.6%	77.5%	74.2%	
30 percent or more	23.4%	22.5%	25.8%	
OWNER CHARACTERISTICS				
Owner-occupied housing units	155,267	106,185	40,366	
Median value (dollars)	119,600	130,000	97,300	
Median selected monthly owner costs with a	1,133	1,129	1,146	
mortgage (dollars) Median selected monthly owner costs without a mortgage (dollars)	349	351	350	
Occupied units paying rent (excluding units where GRAPI cannot be computed)	82,254	38,848	36,616	
Less than 30 percent	47.4%	51.4%	43.7%	
30 percent or more	52.6%	48.6%	56.3%	
GROSS RENT		10		
Occupied units paying rent	84,382	39,033	38,470	
Median gross rent (dollars)	749	782	705	
COMPUTERS AND INTERNET USE		.0		
Total households	246.483	149.948	80.554	
With a computer	87.0%	87.8%	84.2%	
With a broadband Internet subscription	77.5%	79.8%	73.0%	
· ·	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	. 5.070		

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Data for the households, families, occupied housing units, owner-occupied housing units, and renter-occupied housing units lines refer to the specified race, Hispanic or Latino, American Indian or Alaska Native, or ancestry of the householder shown in the table. Data in the "Total population" column are shown regardless of the race, Hispanic or Latino, American Indian or Alaska Native, or ancestry of the person.

The Census Bureau introduced a new set of disability questions in the 2008 ACS questionnaire. Accordingly, comparisons of disability data from 2008 or later with data from prior years are not recommended. For more information on these questions and their evaluation in the 2006 ACS Content Test, see the Evaluation Report Covering Disability.

Employment and unemployment estimates may vary from the official labor force data released by the Bureau of Labor Statistics because of differences in survey design and data collection. For guidance on differences in employment and unemployment estimates from different sources go to Labor Force Guidance.

Industry codes are 4-digit codes and are based on the North American Industry Classification System 2012. The Industry categories adhere to the guidelines issued in Clarification Memorandum No. 2, "NAICS Alternate Aggregation Structure for Use By U.S. Statistical Agencies," issued by the Office of Management and Budget.

Occupation codes are 4-digit codes and are based on Standard Occupational Classification 2010.

Telephone service data are not available for cartain geographic areas due to problems with data collection of this prestion the pocurred in 2015 and 2016. Both ACS 1-year and ACS 5-year files were affected. It may take several years in the ACS 5-year files until the estimates are available for the geographic areas affected.

Logical coverage edits applying a rules-based assignment of Medicaid, Medicare and military health coverage were added as of 2009 -- please see https://www.census.gov/library/working-papers/2010/demo/coverage_edits_final.html for more details. The 2008 data table in American FactFinder does not incorporate these edits. Therefore, the estimates that appear in these tables are not comparable to the estimates in the 2009 and later tables. Select geographies of 2008 data comparable to the 2009 and later tables are available at https://www.census.gov/data/tables/time-series/acs/1-year-re-run-health-insurance.html. The health insurance coverage category names were modified in 2010. See https://www.census.gov/topics/health/health-insurance/about/glossary.html#par_textimage_18 for a list of the insurance type definitions.

Data about computer and Internet use were collected by asking respondents to select "Yes" or "No" to each type of computer and each type of Internet subscription. Therefore, respondents were able to select more than one type of computer and more than one type of Internet subscription.

The category "with a broadband Internet subscription" refers to those who said "Yes" to at least one of the following types of Internet subscriptions: Broadband such as cable, fiber optic, or DSL; a cellular data plan; satellite; or a fixed wireless subscription.

An Internet "subscription" refers to a type of service that someone pays for to access the Internet such as a cellular data plan, broadband such as cable, fiber optic or DSL, or other type of service. This will normally refer to a service that someone is billed for directly for Internet alone or sometimes as part of a bundle.

"With a computer" includes those who said "Yes" to at least one of the following types of computers: Desktop or laptop; smartphone; tablet or other portable wireless computer; or some other type of computer.

Caution should be used when comparing data for computer and Internet use before and after 2016. Changes in 2016 to the questions involving the wording as well as the response options resulted in changed response patterns in the data. Most noticeable are increases in overall computer ownership or use, the total of Internet subscriptions, satellite subscriptions, and cellular data plans for a smartphone or other mobile device. For more detailed information about these changes, see the 2016 American Community Survey Content Test Report for Computer and Internet Use located at https://www.census.gov/programs-surveys/acs/technical-documentation/user-notes.html.

While the 2017 American Community Survey (ACS) data generally reflect the July 2015 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas, in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineations due to differences in the effective cates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.

2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.

3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.

4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.

5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.

6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.

7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.

8. An '(X)' means that the estimate is not applicable or not available.
Selected Socio-Economic Data

Congressional District 1 (115th Congress), Georgia

NH Any Part African American vis-à-vis NH White

Data Set: 2017 American Community Survey 1-Year Estimates

<u>29-Nov-18</u>

Population by Age

Congressional District 1 (115th Congress), Georgia



Household Type for Population in Households

Congressional District 1 (115th Congress), Georgia



Marital Status for the Population 15 Years and Over

Congressional District 1 (115th Congress), Georgia



Educational Attainment for the Population 25 Years and Older

Congressional District 1 (115th Congress), Georgia



Veterans in the Civilian Population 18 Years and Over

Congressional District 1 (115th Congress), Georgia



Disability by Age -- Civilian Noninstitutionalized Population

Congressional District 1 (115th Congress), Georgia



Geographical Mobility in the Past Year (Population 1 Year and Over)

Congressional District 1 (115th Congress), Georgia



Speak English Less than "Very Well" (Population 5 Years and Over)



Congressional District 1 (115th Congress), Georgia

Employment Status for the Population 16 years and over

Congressional District 1 (115th Congress), Georgia



Unemployment (Civilian Labor Force -- Ages 16 and Over)





Means of Transportation to Work (Workers 16 Years and Over)

Congressional District 1 (115th Congress), Georgia



Occupation for the Civilian Employed 16 Years and Over Population

Congressional District 1 (115th Congress), Georgia



Median Household Income in the Past 12 Months

Congressional District 1 (115th Congress), Georgia



Receipt of Food Stamps/SNAP in the Past 12 Months by Household

Congressional District 1 (115th Congress), Georgia



Median Family Income in the Past 12 Months

Congressional District 1 (115th Congress), Georgia



Per capita Income in the Past 12 Months

Congressional District 1 (115th Congress), Georgia



Lack of Health Insurance Coverage -- Civilian Noninstitutionalized Population



Congressional District 1 (115th Congress), Georgia

Family Households Below Poverty in the Past 12 Months

Congressional District 1 (115th Congress), Georgia



Female-headed Households with Related Children Below Poverty in the Past 12 Months



Congressional District 1 (115th Congress), Georgia

Home Owners and Renters by Household

Congressional District 1 (115th Congress), Georgia



Population Below Poverty in the Past 12 Months

Congressional District 1 (115th Congress), Georgia



No Vehicles Available by Household

Congressional District 1 (115th Congress), Georgia



More than One Person per Room (Crowding) by Household



Congressional District 1 (115th Congress), Georgia

Median Home Value -- Owner-Occupied





Rent as a Percentage of Household Income (30% or more) -- Renter-Occupied



Congressional District 1 (115th Congress), Georgia

Computers and Internet Use

Congressional District 1 (115th Congress), Georgia



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\mathbf{FactF}	inder North
S0201	SELECTED POPULATION PROFILE IN THE UNITED STATES
	2017 American Community Survey 1-Year Estimates

Note: This is a modified view of the original table.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

			COM
Subject	Congressional Di	strict 1 (115th Cong	ress), Georgia
	Total population	White alone, not Hispanic or Latiro	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
TOTAL NUMBER OF RACES REPORTED			
Total population	747,334	440,928	224,522
One race	97.2%	100.0%	96.3%
Two races	2.5%	(X)	3.6%
Three races	0.3%	(X)	0.1%
Four or more races	0.0%	(X)	0.0%
SEX AND AGE			
Total population	747,334	440,928	224,522
Male	49.1%	49.7%	47.7%
Female	50.9%	50.3%	52.3%
Under 5 years	6.8%	5.8%	7.2%
5 to 17 years	16.9%	14.7%	19.7%
18 to 24 years	10.4%	8.5%	12.9%
25 to 34 years	15.1%	14.5%	15.5%
35 to 44 years	12.1%	12.4%	10.6%
45 to 54 years	12.5%	12.9%	12.7%
55 to 64 years	12.0%	13.4%	10.8%
65 to 74 years	8.8%	10.8%	6.7%
75 years and over	5.4%	6.9%	4.0%
Median age (years)	35.6	40.2	31.2
18 years and over	76.3%	79.5%	73.2%
21 years and over	72.1%	76.1%	67.9%

et 1:18-cv-02869-JPBngesional District 66 (415th file gross) 09719 Page 187 of 306 Total population White alone, not Black or African **Hispanic or** American alone Latino or in combination with one or more other races, not Hispanic or Latino Estimate Estimate Estimate 62 years and over 17.1% 21.0% 13.0% 65 years and over 14.2% 17.8% 10.7% Under 18 years 176,950 90,400 60,247 Male 50.7% 51.6% 50.2% Female 49.3% 49.8% 48.4% 18 years and over 570,384 350,528 164,275 Male 48.6% 49.2% 46.8% Female 50.8% 53.2% 51.4% 18 to 34 years 190,743 101,565 63,810 Male 51.8% 52.0% 49.8% Female 48.2% 48.0% 50.2% 35 to 64 years 273,481 170,539 76,425 Male 48.2% 49.4% 46.9% Female 51.8% 50.6% 53.1% 65 years and over 106,160 78,424 24,040 Male 43.6% 45.4% 38.5% Female 56.4% 54.6% 61.5% RELATIONSHIP Population in households 722,185 429,973 214,317 Householder or spouse 55.9% 62.7% 46.0% Child 30.7% 26.8% 36.0% Other relatives 7.3% 5.1% 11.4% Nonrelatives 6.1% 5.5% 6.5% Unmarried partner 2.6% 2.4% 3.1% HOUSEHOLDS BY TYPE Households 276,109 177,199 75,423 Family households 65.9% 65.7% 65.4% With own children of the householder under 18 27.2% 24.0% 29.0% years Married-couple family 46.5% 52.9% 30.9% With own children of the householder under 18 16.0% 17.7% 7.9% years Female householder, no husband present, family 15.1% 8.7% 29.0% With own children of the householder under 18 9.0% 4.3% 18.4% years Nonfamily households 34.1% 34.3% 34.6% Male householder 16.2% 16.1% 16.2% Living alone 12.3% 12.7% 12.4% Not living alone 3.9% 3.5% 3.8% Female householder 17.9% 18.2% 18.4% Living alone 15.6% 15.7% 16.4% Not living alone 2.3% 2.5% 2.0% Average household size 2.62 2.49 2.79 Average family size 3.05 3.21 3.48

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
MARITAL STATUS			
Population 15 years and over	598,268	366,296	172,636
Now married, except separated	46.1%	53.3%	30.7%
Diversed	6.2%	7.2%	5.6%
Separated	12.7%	13.2%	12.8%
Never married	32.1%	2.1%	4.2%
Male 15 years and over	291,770	181,219	80,767
Now married, except separated	47.4%	54.4%	33.0%
Widowed	2.9%	3.4%	2.3%
Divorced	12.7%	13.1%	12.8%
Separated	1.6%	1.3%	2.0%
Never married	35.4%	27.8%	49.8%
Female 15 years and over	306.498	185.077	91 869
Now married, except separated	44.9%	52.3%	28.7%
Widowed	9.3%	10.9%	8.4%
Divorced	12.6%	13.4%	12.8%
Separated	4.2%	2.3%	6.1%
Never married	28.9%	20.5%	44.0%
		CP-	
SCHOOL ENROLLMENT			
Population 3 years and over enrolled in school	190,237	94,646	70,255
Kindergerten	6.0%	6.4%	6.1%
Flomontony ophool (gradeo 1.9)	4.9%	4.8%	4.4%
High school (grades 0.12)	40.3%	40.0%	40.8%
College or graduate school	20.5%	22.9%	16.8%
College of graduate school	28.3%	25.9%	31.8%
Male 3 years and over enrolled in school	92,964	46,694	33,912
Percent enrolled in kindergarten to grade 12	69.3%	71.9%	65.4%
Percent enrolled in college or graduate school	24.1%	21.2%	27.4%
Female 3 years and over enrolled in school	97,273	47,952	36,343
Percent enrolled in kindergarten to grade 12	62.3%	63.6%	59.0%
Percent enrolled in college or graduate school	32.4%	30.5%	35.9%
EDUCATIONAL ATTAINMENT			
Population 25 years and over	492 852	312 955	135 234
Less than high school diploma	12.4%	9.1%	17.3%
High school graduate (includes equivalency)	29.3%	27.5%	35.0%
Some college or associate's degree	33.1%	33.4%	34.0%
Bachelor's degree	15.2%	17.8%	8.5%
Graduate or professional degree	10.0%	12.2%	5.2%
High school graduate or higher	87.6%	90.9%	82.7%
iviale, high school graduate or higher	86.6%	90.9%	79.0%
Female, high school graduate or higher	88.5%	91.0%	85.7%
Bachelor's degree or higher	25.2%	30.0%	13.7%
Viale, bacheloris degree or nigher	23.8%	29.5%	11.3%
remaie, bachelor's degree or higher	26.4%	30.6%	15.7%

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	Total population White alone, not Hispanic or Latino		Fotal population White alone, not Blac Hispanic or Ame Latino or in with Othe Hi		Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate		
FERTILITY					
Women 15 to 50 years	181,113	99,627	59,056		
Women 15 to 50 years who had a birth in the past 12	10,867	5,744	3,396		
Unmarried women 15 to 50 years who had a birth in	4 879	1 719	2 593		
the past 12 months	4,010	1,710	2,000		
As a percent of all women with a birth in the past 12 months	44.9%	29.9%	76.4%		
RESPONSIBILITY FOR GRANDCHILDREN UNDER 18					
Population 30 years and over	432,803	278,546	116.974		
Grandparents living with grandchild(ren)	4.3%	2.6%	7.9%		
Grandparents responsible for grandchildren as a	50.3%	54.5%	49.2%		
percentage of living with grandchildren					
VETERAN STATUS					
Civilian population 18 years and over	555.192	340.011	162.483		
Civilian veteran	12.3%	12.4%	12.8%		
DISABILITY STATUS		Ċ	F		
Total civilian noninstitutionalized population	719,235	424,951	216,950		
With a disability	15.1%	15.9%	14.9%		
		24			
Civilian noninstitutionalized population under 18 years	176,754	90,320	60,140		
With a disability	5.6%	5.4%	6.8%		
	les la construction de la constr				
Civilian noninstitutionalized population 18 to 64 years	439,429	258,572	133,498		
With a disability	13.6%	13.4%	13.9%		
	10.070	10.470	10.070		
Civilian noninstitutionalized population 65 years and	103,052	76,059	23,312		
older		-,			
	37.8%	36.8%	41.9%		
RESIDENCE 1 YEAR AGO					
Population 1 year and over	735,510	434,309	221,304		
Same house	80.1%	81.4%	78.9%		
Different house in the U.S.	19.1%	18.2%	20.5%		
Same county	9.2%	7.3%	13.6%		
Different county	9.9%	10.9%	6.9%		
Same state	4.6%	4.8%	3.9%		
Different state	5.3%	6.1%	3.0%		
Abroad	0.8%	0.3%	0.6%		
PLACE OF BIRTH, CITIZENSHIP STATUS AND YEAR OF ENTRY					
Native	710,422	432,352	220,709		
Male	49.0%	49.9%	47.6%		
Female	51.0%	50.1%	52.4%		
Foreign horn					
	36,912	8,576	3,813		
Female	51.2%	42.5%	54.8%		
remaie	48.8%	57.5%	45.2%		
	1		1		

මස් ≌ 1:18-cv-02869-J	Total population	Brone South Will of Carolin Control of Carolin Carolina C	
	Estimate	Estimate	Estimate
Foreign born; naturalized U.S. citizen	16,517	5,647	2,786
Male	46.2%	40.8%	64.0%
Female	53.8%	59.2%	36.0%
Foreign born: not a U.S. citizen	20 395	2 929	1 027
Male	55 3%	15 0%	20.7%
Female	44.7%	54.1%	70.3%
Population born outside the United States	36,912	8,576	3,813
Entered 2010 or later	29.6%	16.9%	26.3%
Entered 2000 to 2009	27.3%	32.8%	11.6%
Entered before 2000	43.1%	50.3%	62.1%
WORLD REGION OF BIRTH OF FOREIGN BORN			
Foreign-born population excluding population born at	36,912	8,576	3,813
Europe	16.2%	67.6%	CO N
Asia	29.4%	7.9%	N
Africa	3.8%	3.0%	N
Oceania	3.6%	5.4%	N
Latin America	45.1%	9.4%	N
Northern America	1.9%	6.8%	N
LANGUAGE SPOKEN AT HOME AND ABILITY TO		C.M.	
Population 5 years and over	696 41%	/15 /30	208 447
English only	030,41.4	415,430	07.5%
Language other than English	91.5%	30.0%	97.5%
Speak English less than "very well"	2 7%	0.2%	0.7%
opour English loss than tory ton	2.176	0.576	0.776
EMPLOYMENT STATUS	K.		
Population 16 years and over	587,682	360,348	169,712
In labor force	61.3%	60.0%	62.5%
Civilian labor force	58.7%	57.1%	61.4%
Employed	54.7%	53.9%	55.7%
Unemployed	4.0%	3.2%	5.7%
Unemployment Rate	6.8%	5.6%	9.3%
Armed Forces	2.6%	2.9%	1.1%
Not in labor force	38.7%	40.0%	37.5%
Females 16 years and over	302,295	182,854	90,199
In labor force	57.1%	53.9%	63.3%
Civilian labor force	56.7%	53.6%	62.8%
Employed	52.8%	50.5%	57.4%
Unemployed	3.9%	3.1%	5 3%
Unemployment Rate	6.9%	5.8%	8.5%
vvorkers 16 years and over	330,857	201,840	94,307
Car, truck, or van - drove alone	81.2%	84.3%	78.4%
Car, truck, or van - carpooled	8.7%	5.9%	10.5%
Public transportation (excluding taxicab)	1.1%	0.2%	3.4%
walkeu	2.9%	2.8%	3.3%

Ethiset 1:18-cv-02869-J	PB"9Docume	nt 66-4 or Flield	"05/01/19 ^{1a} Pa
	Total population	al population White alone, not Hispanic or Latino	
	Estimate	Estimate	Estimate
Other means	2.6%	2.6%	2.7%
Worked at home	3.5%	4.3%	1.7%
Mean travel time to work (minutes)	24.1	24.3	24.7
OCCUPATION			
Civilian employed population 16 years and over	321 461	194 347	94 594
Management, business, science, and arts	33.7%	39.8%	24.6%
occupations	33.170	45.0%	24.070
Sales and office occupations	21.1%	15.9%	30.0%
Natural resources construction and maintenance	21.4%	22.1%	20.7%
occupations	9.5%	10.3%	5.3%
Production, transportation, and material moving occupations	14.3%	11.9%	19.3%
iviale civilian employed population 16 years and over	161,880	101,959	42,805
Management, business, science, and arts occupations	28.6%	34.3%	18.1%
Service occupations	18.7%	14.5%	27.0%
Sales and office occupations	13.3%	13.7%	11.9%
Natural resources, construction, and maintenance	17.6%	18.5%	11.5%
occupations Production transportation and material moving	21.70/		21 50/
occupations	21.7%	19.0%	31.5%
Female civilian employed population 16 years and	159,581	92,388	51,789
Management, business, science, and arts	38.8%	45.7%	30.0%
occupations		47 50(00.40/
Selvice occupations	23.5%	17.5%	32.4%
Sales and onice occupations	29.6%	31.3%	28.0%
occupations	1.2%	1.3%	0.2%
Production, transportation, and material moving	6.8%	4.2%	9.3%
occupations			
INDUSTRY			
Civilian employed population 16 years and over	321,461	194,347	94,594
Agriculture, forestry, fishing and hunting, and mining	1.1%	0.9%	0.2%
Construction	6.5%	7.2%	3.4%
Manufacturing	10.4%	10.9%	9.9%
Wholesale trade	2.1%	2.6%	0.8%
Retail trade	11.1%	10.6%	10.7%
Transportation and warehousing, and utilities	7.4%	6.7%	10.3%
Information	1.7%	1.9%	0.7%
Finance and insurance, and real estate and rental	4.7%	5.5%	3.7%
and leasing Professional, scientific, and management, and	9.4%	8.7%	10.0%
administrative and waste management services	0.770	0.170	10.070
Educational services, and health care and social assistance	21.8%	22.7%	24.1%
Arts, entertainment, and recreation, and	11.9%	10.3%	13.9%
Accommodation and tood services Other services (except public administration)	1 10/	1 10/	4.00/
Public administration	4.4%	4.4%	4.0%
	1.070	1.170	0.078
CLASS OF WORKER			
Civilian employed population 16 years and over	321,461	194,347	94,594

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
Private wage and salary workers	77.5%	77.4%	77.3%
Government workers	16.3%	16.3%	18.5%
Self-employed workers in own not incorporated business	6.1%	6.3%	4.1%
Unpaid family workers	0.2%	0.0%	0.1%
INCOME IN THE PAST 12 MONTHS (IN 2017 INFLATION-ADJUSTED DOLLARS) Households	276,109	177,199	75,423
Median household income (dollars)	51,223	58,996	39,690
With earnings	76.2%	74.3%	78.3%
Mean earnings (dollars)	71,413	81,617	49,761
With Social Security income	31.9%	35.3%	29.3%
Mean Social Security income (dollars)	17,951	19,632	13,759
With Supplemental Security Income	6.2%	4.9%	10.5%
Mean Supplemental Security Income (dollars)	9,994	11,011	8,811
With cash public assistance income	1.1%	1.0%	1.4%
Mean cash public assistance income (dollars)	2,300	2,470	1,305
With retirement income	18.6%	20.5%	16.8%
Mean retirement income (dollars)	26,335	28,163	20,512
With Food Stamp/SNAP benefits	14.0%	8.0%	27.3%
Families	181,888	116,473	49,300
Median family income (dollars)	60,811	72,462	45,251
Married-couple family	70.6%	80.5%	47.2%
Median income (dollars)	76,680	82,669	67,425
Male householder, no spouse present, family	6.5%	6.2%	8.5%
Median income (dollars)	48,824	51,883	42,161
Female householder, no husband present, family	22.9%	13.3%	44.3%
Median income (dollars)	31,340	40,071	29,123
Individuals	747,334	440,928	224,522
Per capita income (dollars)	27,437	33,125	19,081
With earnings for full-time, year-round workers:			
Male	144,397	95,381	32,663
Female	108,320	61,788	35,982
Mean earnings (dollars) for full-time, year-round workers:			
Male	61,375	69,321	40,660
Female	41,986	46,946	36,388
Median earnings (dollars) full-time, year-round workers:			
Male	46,006	51,522	33,927
Female	35,845	40,936	32,145
HEALTH INSURANCE COVERAGE			
Civilian noninstitutionalized population	719,235	424,951	216,950
With private health insurance	63.4%	70.0%	54.2%
With public coverage	34.1%	31.7%	40.6%
No health insurance coverage	14.2%	11.7%	15.7%
POVERTY RATES FOR FAMILIES AND PEOPLE FOR WHOM POVERTY STATUS IS DETERMINED			
All families	12.5%	7.9%	20.2%
voith related children of the householder under 18 years With related children of the householder under 5	20.0%	12.4%	30.9%
years only Married-couple family	15.8%	4.9%	28.2%
amod oodpio idiniiy	5.4%	4.9%	5.4%

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
With related children of the householder under 18	6.3%	6.3%	2.7%
With related children of the householder under 5	2.4%	1.9%	N
years only	2.470	1.070	
Female householder, no husband present, family	31.9%	21.0%	35.4%
With related children of the householder under 18	40.6%	28.9%	44.1%
With related children of the householder under 5	38.2%	20.8%	41.4%
All people	16.6%	11.4%	24.8%
Under 18 years	24.6%	14.8%	39.0%
Related children of the householder under 18 years	24.3%	14.4%	38.8%
Related children of the householder under 5 years	25.9%	12.8%	44.9%
Related children of the householder 5 to 17 years	23.7%	15.0%	36.6%
18 years and over	14.09/	10.5%	10.29/
18 to 64 years	14.0%	10.5%	19.3%
65 years and over	15.1%	F 19/	19.3%
People in families	9.2%	0.1%	19.4%
Unrelated individuals 15 years and over	14.3%	0.1%	23.2%
	20.2%	22.5%	31.5%
	276 400	177.400	75 400
	276,109	60.4%	/5,423
Renter-occupied housing units	20.1%	20.6%	47.2% 52.9%
Average household size of owner-occupied unit	2.62	30.0%	2.0%
Average household size of renter-occupied unit	2.02	2.30	2.04
	2.01	2.47	2.75
Occupied housing units	276 109	177 100	75 423
1-unit. detached or attached	67.8%	72.0%	63.1%
2 to 4 units	8.1%	6.1%	12.4%
5 or more units	10.1%	6.4%	12.470
Mobile home, boat, RV, van, etc.	14.0%	15.5%	8.9%
YEAR STRUCTURE BUILT	14.070	10.070	0.070
Occupied housing units	276 109	177 199	75 423
Built 2014 or later	3.4%	3.4%	2.9%
Built 2010 to 2013	4.2%	4.4%	3.2%
Built 2000 to 2009	20.1%	20.5%	19.1%
Built 1980 to 1999	35.2%	37.6%	28.7%
Built 1960 to 1979	20.7%	19.6%	23.8%
Built 1940 to 1959	10.8%	9.1%	16.7%
Built 1939 or earlier	5.5%	5.4%	5.7%
VEHICLES AVAILABLE			
Occupied housing units	276,109	177,199	75,423
None	6.8%	3.7%	14.0%
1 or more	93.2%	96.3%	86.0%
HOUSE HEATING FUEL			
Occupied housing units	276,109	177,199	75,423
Gas	16.4%	14.7%	19.0%
Electricity	82.6%	84.3%	80.5%
All other fuels	0.5%	0.6%	0.3%
No fuel used	0.5%	0.4%	0.2%
SELECTED CHARACTERISTICS			
Occupied housing units	276,109	177,199	75,423

Total population Estimate 1.7% 2.0% 103.731	White alone, not Hispanic or Latino Estimate 1.7% 1.2%	Black or African American alone or in combination with one or more other races, not Hispanic or Latino Estimate 1.4% 2.3%
Estimate 1.7% 2.0% 103.731	Estimate 1.7% 1.2%	Estimate 1.4% 2.3%
1.7% 2.0% 103.731	1.7% 1.2%	1.4% 2.3%
2.0%	1.2%	2.3%
103,731		
,	74,083	23,677
73.3%	74.1%	72.5%
26.7%	25.9%	27.5%
168,281	122,934	35,579
152,800	163,700	123,000
1,249	1,323	1,093
373	378	376
96,271	47,718	36,009
53.5%	57.0%	51.9%
46.5%	43.0%	48.1%
	10	
98,985	(48,770	37,254
933	996	842
	.0	
276.109	177.199	75.423
90,9%	91.8%	87.7%
83.0%	84.4%	77.9%
	103,731 73.3% 26.7% 168,281 152,800 1,249 373 96,271 53.5% 46.5% 98,985 933 933 276,109 90.9% 83,0%	103,731 74,083 73.3% 74.1% 26.7% 25.9% 168,281 122,934 152,800 163,700 1,249 1,323 373 378 96,271 47,718 53.5% 57.0% 46.5% 43.0% 933 996 276,109 177,199 90.9% 91.8% 83.0% 84.4%

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Data for the households, families, occupied housing units, owner-occupied housing units, and renter-occupied housing units lines refer to the specified race, Hispanic or Latino, American Indian or Alaska Native, or ancestry of the householder shown in the table. Data in the "Total population" column are shown regardless of the race, Hispanic or Latino, American Indian or Alaska Native, or ancestry of the person.

The Census Bureau introduced a new set of disability questions in the 2008 ACS questionnaire. Accordingly, comparisons of disability data from 2008 or later with data from prior years are not recommended. For more information on these questions and their evaluation in the 2006 ACS Content Test, see the Evaluation Report Covering Disability.

Employment and unemployment estimates may vary from the official labor force data released by the Bureau of Labor Statistics because of differences in survey design and data collection. For guidance on differences in employment and unemployment estimates from different sources go to Labor Force Guidance.

Industry codes are 4-digit codes and are based on the North American Industry Classification System 2012. The Industry categories adhere to the guidelines issued in Clarification Memorandum No. 2, "NAICS Alternate Aggregation Structure for Use By U.S. Statistical Agencies," issued by the Office of Management and Budget.

Occupation codes are 4-digit codes and are based on Standard Occupational Classification 2010.
Telephone service data are not available for cartain geographic areas due to problems with data collection of this prestion the pocurred in 2015 and 2016. Both ACS 1-year and ACS 5-year files were affected. It may take several years in the ACS 5-year files until the estimates are available for the geographic areas affected.

Logical coverage edits applying a rules-based assignment of Medicaid, Medicare and military health coverage were added as of 2009 -- please see https://www.census.gov/library/working-papers/2010/demo/coverage_edits_final.html for more details. The 2008 data table in American FactFinder does not incorporate these edits. Therefore, the estimates that appear in these tables are not comparable to the estimates in the 2009 and later tables. Select geographies of 2008 data comparable to the 2009 and later tables are available at https://www.census.gov/data/tables/time-series/acs/1-year-re-run-health-insurance.html. The health insurance coverage category names were modified in 2010. See https://www.census.gov/topics/health/health-insurance/about/glossary.html#par_textimage_18 for a list of the insurance type definitions.

Data about computer and Internet use were collected by asking respondents to select "Yes" or "No" to each type of computer and each type of Internet subscription. Therefore, respondents were able to select more than one type of computer and more than one type of Internet subscription.

The category "with a broadband Internet subscription" refers to those who said "Yes" to at least one of the following types of Internet subscriptions: Broadband such as cable, fiber optic, or DSL; a cellular data plan; satellite; or a fixed wireless subscription.

An Internet "subscription" refers to a type of service that someone pays for to access the Internet such as a cellular data plan, broadband such as cable, fiber optic or DSL, or other type of service. This will normally refer to a service that someone is billed for directly for Internet alone or sometimes as part of a bundle.

"With a computer" includes those who said "Yes" to at least one of the following types of computers: Desktop or laptop; smartphone; tablet or other portable wireless computer; or some other type of computer.

Caution should be used when comparing data for computer and Internet use before and after 2016. Changes in 2016 to the questions involving the wording as well as the response options resulted in changed response patterns in the data. Most noticeable are increases in overall computer ownership or use, the total of Internet subscriptions, satellite subscriptions, and cellular data plans for a smartphone or other mobile device. For more detailed information about these changes, see the 2016 American Community Survey Content Test Report for Computer and Internet Use located at https://www.census.gov/programs-surveys/acs/technical-documentation/user-notes.html.

While the 2017 American Community Survey (ACS) data generally reflect the July 2015 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas, in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineations due to differences in the effective cates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.

2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.

3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.

4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.

5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.

6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.

7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.

8. An '(X)' means that the estimate is not applicable or not available.

Selected Socio-Economic Data

Congressional District 8 (115th Congress), Georgia

NH Any Part African American vis-à-vis NH White

Data Set: 2017 American Community Survey 1-Year Estimates

<u>29-Nov-18</u>

Population by Age

Congressional District 8 (115th Congress), Georgia



Household Type for Population in Households

Congressional District 8 (115th Congress), Georgia



Marital Status for the Population 15 Years and Over

Congressional District 8 (115th Congress), Georgia



Educational Attainment for the Population 25 Years and Older

Congressional District 8 (115th Congress), Georgia



Veterans in the Civilian Population 18 Years and Over

Congressional District 8 (115th Congress), Georgia



Disability by Age -- Civilian Noninstitutionalized Population

Congressional District 8 (115th Congress), Georgia



Geographical Mobility in the Past Year (Population 1 Year and Over)

Congressional District 8 (115th Congress), Georgia



Speak English Less than "Very Well" (Population 5 Years and Over)



Congressional District 8 (115th Congress), Georgia

Employment Status for the Population 16 years and over

Congressional District 8 (115th Congress), Georgia



Unemployment (Civilian Labor Force -- Ages 16 and Over)





Means of Transportation to Work (Workers 16 Years and Over)

Congressional District 8 (115th Congress), Georgia



Occupation for the Civilian Employed 16 Years and Over Population

Congressional District 8 (115th Congress), Georgia



Median Household Income in the Past 12 Months

Congressional District 8 (115th Congress), Georgia



Receipt of Food Stamps/SNAP in the Past 12 Months by Household

Congressional District 8 (115th Congress), Georgia



Median Family Income in the Past 12 Months

Congressional District 8 (115th Congress), Georgia



Per capita Income in the Past 12 Months

Congressional District 8 (115th Congress), Georgia



Lack of Health Insurance Coverage -- Civilian Noninstitutionalized Population



Congressional District 8 (115th Congress), Georgia

Family Households Below Poverty in the Past 12 Months



Congressional District 8 (115th Congress), Georgia

Female-headed Households with Related Children Below Poverty in the Past 12 Months



Congressional District 8 (115th Congress), Georgia

Home Owners and Renters by Household

Congressional District 8 (115th Congress), Georgia



Population Below Poverty in the Past 12 Months

Congressional District 8 (115th Congress), Georgia



No Vehicles Available by Household

Congressional District 8 (115th Congress), Georgia



More than One Person per Room (Crowding) by Household



Congressional District 8 (115th Congress), Georgia

Median Home Value -- Owner-Occupied





Rent as a Percentage of Household Income (30% or more) -- Renter-Occupied



Congressional District 8 (115th Congress), Georgia

Computers and Internet Use

Congressional District 8 (115th Congress), Georgia



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S0201	SELECTED POPULATION PROFILE IN THE UNITED STATES
	2017 American Community Survey 1-Year Estimates

Note: This is a modified view of the original table.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

			COM		
Subject	Congressional District 8 (115th Congress), Georgia				
	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino		
	Estimate	Estimate	Estimate		
TOTAL NUMBER OF RACES REPORTED					
Total population	702,262	414,444	226,165		
One race	97.8%	100.0%	96.9%		
Two races	2.1%	(X)	3.1%		
Three races	0.1%	(X)	0.1%		
Four or more races	0.0%	(X)	0.0%		
SEX AND AGE					
Total population	702,262	414,444	226,165		
Male	49.4%	48.8%	48.3%		
Female	50.6%	51.2%	51.7%		
Under 5 years	6.4%	5.4%	7.3%		
5 to 17 years	17.6%	15.1%	20.4%		
18 to 24 years	9.9%	8.8%	11.2%		
25 to 34 years	12.9%	12.2%	13.3%		
35 to 44 years	12.9%	12.0%	13.6%		
45 to 54 years	12.7%	13.4%	12.1%		
55 to 64 years	12.4%	13.7%	11.2%		
65 to 74 years	9.1%	11.3%	6.9%		
75 years and over	6.2%	8.0%	4.1%		
Median age (years)	37.5	41.9	32.8		
18 years and over	76.1%	79.4%	72.3%		
21 years and over	71.4%	74.9%	67.2%		

Total population White alone, not **Black or African Hispanic or** American alone Latino or in combination with one or more other races, not Hispanic or Latino Estimate Estimate Estimate 62 years and over 18.6% 23.0% 14.1% 65 years and over 15.3% 19.3% 11.0% Under 18 years 168,110 85,171 62,564 Male 52.9% 50.9% 51.8% Female 47.1% 48.2% 49.1% 18 years and over 534,152 329,273 163,601 Male 48.3% 48.3% 46.9% Female 51.7% 51.7% 53.1% 18 to 34 years 159,769 87,323 55,464 Male 50.6% 50.5% 50.1% Female 49.4% 49.5% 49.9% 35 to 64 years 267,177 161,831 83,265 Male 49.3% 49.2% 47.3% Female 50.8% 50.7% 52.7% 65 years and over 107,206 80,119 24,872 Male 43.8% 42.7% 38.8% Female 61.2% 57.3% 56.2% RELATIONSHIP Population in households 678,564 406,502 213,143 Householder or spouse 55.8% 61.0% 48.0% Child 31.1% 27.6% 35.5% Other relatives 7.4% 5.8% 11.1% Nonrelatives 5.7% 5.6% 5.4% Unmarried partner 2.0% 1.7% 2.5% HOUSEHOLDS BY TYPE Households 257,564 159,647 80,530 Family households 67.5% 69.3% 62.8% With own children of the householder under 18 27.9% 24.8% 30.4% years Married-couple family 46.8% 55.9% 28.0% With own children of the householder under 18 16.8% 18.9% 9.7% years Female householder, no husband present, family 15.6% 9.6% 27.8% With own children of the householder under 18 8.6% 4.2% 17.0% years Nonfamily households 32.5% 30.7% 37.2% Male householder 14.9% 14.2% 15.7% Living alone 11.3% 10.6% 13.1% Not living alone 3.5% 3.6% 2.6% Female householder 17.6% 16.5% 21.5% Living alone 15.6% 14.8% 18.6% Not living alone 2.1% 1.7% 2.9% Average household size 2.63 2.60 2.62 Average family size 3.20 3.11 3.35

et 1:18-cv-02869-JPBngressional District 88 415th field 053 061719 Page 224 of 306

Ethiet 1:18-cv-02869-	9-JPBngrossional District 86 (415th filengross) 097919 Page 225		
	Total population	population Hispanic or Latino White alone, not Hispanic or Latino With one or more other races, not Hispanic or Latino	
	Estimate	Estimate	Estimate
MARITAL STATUS			
Population 15 years and over	562,772	343,727	174,470
Now married, except separated	46.7%	54.8%	29.4%
Widowed	6.4%	7.0%	6.0%
Divorced	11.9%	12.2%	12.8%
Separated	2.7%	1.9%	4.7%
Never married	32.2%	24.1%	47.1%
Male 15 years and over	070.000	100 004	04 640
Now married except separated	213,023	100,001	01,019
Widowed	48.6%	50.8%	31.3%
Divorced	2.3%	2.3%	2.0%
Separated	11.9%	12.4%	13.0%
Never married	2.1%	1.3%	3.8%
	35.1%	21.2%	49.2%
Female 15 years and over	289,749	177,066	92,851
Now married, except separated	45.0%	53.0%	27.7%
Widowed	10.3%	11.5%	9.0%
Divorced	11.9%	12.0%	12.6%
Separated	3.3%	2.4%	5.4%
Never married	29.5%	21.2%	45.2%
		CP2	
Population 3 years and over enrolled in school	178,144	91,597	66,737
Nursery school, preschool	6.1%	6.2%	6.2%
	4.8%	4.0%	5.5%
Elementary school (grades 1-8)	44.5%	43.8%	43.9%
High school (grades 9-12)	21.3%	21.4%	20.8%
College or graduate school	23.4%	24.6%	23.6%
Male 3 years and over enrolled in school	87,258	44,296	31,183
Percent enrolled in kindergarten to grade 12	74.5%	72.5%	73.0%
Percent enrolled in college or graduate school	18.4%	20.4%	18.9%
Female 3 years and over enrolled in school	90,886	47,301	35,554
Percent enrolled in kindergarten to grade 12	66.8%	66.1%	67.7%
Percent enrolled in college or graduate school	28.1%	28.6%	27.8%
EDUCATIONAL ATTAINMENT			
Population 25 years and over	164 042	202 657	120 100
Less than high school diploma	404,943	292,057	130,190
High school graduate (includes equivalency)	10.1%	10.5%	20.0%
Some college or associate's degree	29.20/	20.20/	25.49/
Bachelor's degree	20.3%	1/ 20/	20.4%
Graduate or professional degree	13.4%	14.0%	II.∠%
	9.0%	10.7%	0.0%
High school graduate or higher	84.9%	89.5%	79.4%
Male, high school graduate or higher	83.0%	88.6%	76.3%
Female, high school graduate or higher	86.6%	90.2%	82.2%
Bachelor's degree or higher	23.0%	25.5%	17.8%

21.0%

24.8%

24.2%

26.7%

13.6%

21.4%

Male, bachelor's degree or higher

Female, bachelor's degree or higher

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
FERTILITY			
Women 15 to 50 years	165,048	91,608	58,258
Women 15 to 50 years who had a birth in the past 12 months	8,529	4,947	2,432
Unmarried women 15 to 50 years who had a birth in	3,623	1,464	1,986
the past 12 months As a percent of all women with a birth in the past 12 months	42.5%	29.6%	81.7%
RESPONSIBILITY FOR GRANDCHILDREN UNDER 18			
YEARS Population 30 years and over	440.050	000.004	400.005
Grandparents living with grandchild(ren)	418,359	266,684	120,985
Grandparents responsible for grandchildren as a	3.5%	3.3%	4.6%
percentage of living with grandchildren	44.4%	43.0%	44.7%
VETERAN STATUS			
Civilian population 18 years and over	530,078	326,881	162,635
Civilian veteran	10.0%	11.2%	8.7%
DISABILITY STATUS		- Č	
Total civilian noninstitutionalized population	679,671	406,890	214,200
With a disability	13.6%	14.6%	13.6%
		28	
Civilian noninstitutionalized population under 18 years	167,712	85,156	62,245
With a disability	3.7%	4.3%	3.3%
	L.		
Civilian noninstitutionalized population 18 to 64 years	407.965	243,401	128,393
With a disability	12.0%	11.6%	1/ 2%
With a diodolity	12.078	11.070	14.270
Civilian noninstitutionalized population 65 years and	103,994	78,333	23.562
older		,	
With a disability	35.8%	35.0%	38.0%
RESIDENCE 1 YEAR AGO			
Population 1 year and over	693,705	410,810	222,838
Same house	86.7%	88.6%	85.5%
Different house in the U.S.	12.8%	11.1%	14.3%
Same county	6.6%	6.0%	7.0%
Different county	6.2%	5.1%	7.3%
Same state	3.7%	3.1%	4.9%
Different state	2.5%	2.0%	2.3%
Abroad	0.4%	0.2%	0.2%
PLACE OF BIRTH, CITIZENSHIP STATUS AND YEAR			
Native	671.316	410 167	222 271
Male	49.3%	48.9%	48.5%
Female	50.7%	51.1%	51.5%
	00.170	01.170	01.070
Foreign born	30.946	4.277	3.894
Male	51.0%	42.8%	37.0%
Female	49.0%	57.2%	63.0%

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
Foreign born; naturalized U.S. citizen	13,296	2,794	2,230
Male	46.4%	50.4%	16.5%
Female	53.6%	49.6%	83.5%
Foreign born; not a U.S. citizen	17 650	1 483	1 664
Male	54.5%	28.3%	64.5%
Female	45.5%	71.7%	35.5%
Population horn outside the United States	20.040	4 077	2.004
Entered 2010 or later	30,946	4,277	3,894
	22.4%	21.3%	28.4%
Entered before 2000	26.3%	19.1%	18.2%
Entered before 2000	51.3%	59.6%	53.4%
WORLD REGION OF BIRTH OF FOREIGN BORN			
sea	30,946	4,277	3,894
Europe	12.4%	69.1%	N N
Asia	23.5%	6.2%	N
Africa	4.2%	3.2%	N
Oceania	0.5%	3.6%	N
Latin America	58.0%	68.0%	N
Northern America	1.4%	9.9%	N
LANGUAGE SPOKEN AT HOME AND ABILITY TO		EMOU.	
Population 5 years and over	657 417	391 973	209 643
English only	93.2%	98.2%	98.1%
Language other than English	6.8%	1.8%	1 9%
Speak English less than "very well"	2.6%	0.2%	0.6%
	2.070	0.270	0.070
EMPLOYMENT STATUS	K		
Population 16 years and over	552,284	339,218	170,219
In labor force	57.7%	58.4%	54.4%
Civilian labor force	57.0%	57.7%	53.8%
Employed	53.3%	54.5%	49.0%
Unemployed	3.7%	3.2%	4.8%
Unemployment Rate	6.5%	5.6%	8.9%
Armed Forces	0.7%	0.7%	0.6%
Not in labor force	42.3%	41.6%	45.6%
Females 16 years and over	284 856	174 766	00 470
In labor force	52 /0/	51 20/	50,479
Civilian labor force	53.4%	51.2%	56.5%
Employed	33.3%	21.1%	50.0%
Unemployed	49.0%	41.0%	52.3%
Unemployment Rate	7.0%	6.9%	4.2%
Workers 16 years and over			
vvorkers 16 years and over	292,908	183,773	82,830
Car, truck, or van - drove alone	85.2%	86.0%	86.6%
Car, truck, or van - carpooled	9.8%	9.2%	8.8%
Public transportation (excluding taxicab)	0.3%	0.1%	0.5%
vvalked	1.0%	0.8%	1.5%

	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
Other means	1.3%	0.8%	1.5%
Worked at home	2.4%	3.0%	1.1%
Mean travel time to work (minutes)	22.0	22.8	20.7
OCCUPATION			
Civilian employed population 16 years and over	294 198	184 747	83 431
Management, business, science, and arts	33.2%	37.8%	25.7%
occupations Service occupations	17.3%	13.4%	24.6%
Sales and office occupations	24.8%	25.5%	25.2%
Natural resources, construction, and maintenance	11.2%	12.4%	4.4%
occupations		12.170	
occupations	13.5%	10.9%	20.1%
Male civilian employed population 16 years and over	153,043	101,645	36,152
Management, business, science, and arts	27.5%	31.0%	20.2%
Service occupations	15.4%	12.2%	22.1%
Sales and office occupations	17.1%	17.8%	15.6%
Natural resources, construction, and maintenance	19.7%	21.9%	9.8%
occupations Production, transportation, and material moving	20.2%		20.40/
occupations	20.3%	17.1%	32.4%
Female civilian employed population 16 years and	141,155	83,102	47,279
Management, business, science, and arts	39.4%	46.2%	29.9%
occupations	014		
Selvice occupations	19.4%	14.8%	26.5%
Natural resources, construction, and maintenance	33.2%	34.8%	32.6%
occupations	1.9%	0.8%	0.3%
Production, transportation, and material moving	6.1%	3.4%	10.8%
INDUSTRY			
Civilian employed population 16 years and over	294,198	184,747	83,431
Agriculture, forestry, fishing and hunting, and mining	3.0%	2.6%	0.3%
Construction	5.7%	7.0%	1.0%
Manufacturing	10.1%	9.9%	11.5%
Wholesale trade	2.7%	2.7%	2.3%
Retail trade	13.0%	13.7%	12.0%
Transportation and warehousing, and utilities	5.2%	4.8%	6.9%
Information	1.5%	1.8%	1.0%
Finance and insurance, and real estate and rental and leasing	4.7%	5.4%	4.1%
Professional, scientific, and management, and	7.6%	8.0%	6.6%
administrative and waste management services Educational services, and health care and social	22.9%	21.8%	27.6%
Arts, entertainment, and recreation, and	10.5%	8.7%	13.6%
accommodation and food services			
Other services (except public administration)	4.5%	4.7%	3.9%
	8.6%	8.8%	9.3%
CLASS OF WORKER			
Civilian employed population 16 years and over	294,198	184,747	83,431

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
Private wage and salary workers	74.1%	73.1%	73.6%
Government workers	20.9%	21.0%	23.3%
Self-employed workers in own not incorporated business	4.9%	5.8%	3.1%
Unpaid family workers	0.1%	0.1%	0.1%
INCOME IN THE PAST 12 MONTHS (IN 2017 INFLATION-ADJUSTED DOLLARS) Households	257 564	159.647	80.530
Median household income (dollars)	45 279	56,008	26,860
With earnings	72 1%	73.1%	66.9%
Mean earnings (dollars)	64 051	72.043	46 709
With Social Security income	.32.0%	35.7%	29.9%
Mean Social Security income (dollars)	17 754	19,392	14 140
With Supplemental Security Income	6.7%	4.8%	10.8%
Mean Supplemental Security Income (dollars)	8 773	9.561	8 021
With cash public assistance income	1.4%	1.2%	1.9%
Mean cash public assistance income (dollars)	2 482	2 105	3.045
With retirement income	18.8%	2,103	14.7%
Mean retirement income (dollars)	28 788	32 157	18 725
With Food Stamp/SNAP benefits	15.3%	0.7%	26.1%
Families	173.805	110.621	50 591
Median family income (dollars)	55 428	70.483	31,879
Married-couple family	69.4%	80.6%	J1,075
Median income (dollars)	72 505	77 722	55 450
Male householder, no spouse present family	75,505	5.5%	11.2%
Median income (dollars)	40.70%	52 /30	33 783
Female householder, no husband present, family	40,754	12,430	33,783
	2.0.1 /0	13.370	44.5 %
Median income (dollars)	25,476	31,431	22,567
Individuals	702,262	414,444	226,165
Per capita income (dollars)	23,929	28,906	16,282
With earnings for full-time, year-round workers:			
Male	125,041	85,651	26,334
Female	95,527	57,041	32,417
Mean earnings (dollars) for full-time, year-round			
workers: Male	53.626	57.813	/2 810
Female	42.426	47,013	42,010
Median earnings (dollars) full-time year-round	43,420	47,000	30,200
workers:			
Male	41,754	46,443	34,975
Female	35,758	38,002	29,848
HEALTH INSURANCE COVERAGE			
Civilian noninstitutionalized population	679,671	406,890	214,200
With private health insurance	63.9%	70.9%	54.2%
With public coverage	34.7%	32.7%	40.7%
No health insurance coverage	14.1%	11.3%	15.2%
POVERTY RATES FOR FAMILIES AND PEOPLE FOR WHOM POVERTY STATUS IS DETERMINED All families		0.000	
With related children of the householder under 19	14.6%	8.3%	26.9%
With related children of the householder under 5	22.5%	13.6%	29.1%
years only		11.070	2011/0
Married-couple family	6.6%	4 2%	12.8%

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino	
	Estimate	Estimate	Estimate	
With related children of the householder under 18	7.4%	5.4%	8.2%	
Vears With related children of the householder under 5	3.4%	4.3%	N	
years only	0.470	4.070		
Female householder, no husband present, family	36.3%	28.4%	40.8%	
With related children of the householder under 18	48.0%	42.3%	49.2%	
With related children of the householder under 5	46.5%	46.6%	43.3%	
All people	19.7%	12.6%	31.6%	
Under 18 years	27.2%	14.6%	41.6%	
Related children of the householder under 18 years	27.0%	14.3%	41.5%	
Related children of the householder under 5 years	25.3%	13.7%	40.4%	
Related children of the householder 5 to 17 years	27.6%	14.5%	41.9%	
18 years and over	17 /0/	12 1%	27 5%	
18 to 64 years	18.5%	12.1%	28.8%	
65 years and over	12.8%	10.0%	20.7%	
People in families	16.3%	9.0%	28.6%	
Unrelated individuals 15 years and over	35.5%	30.0%	43.8%	
HOUSING TENURE	00.070	00.570	+0.070	
Occupied housing units	257 564	159 647	80.530	
Owner-occupied housing units	63.2%	73.3%	45.7%	
Renter-occupied housing units	36.8%	26.7%	54.3%	
Average household size of owner-occupied unit	2.64	2.60	2.67	
Average household size of renter-occupied unit	2.62	2.60	2.59	
UNITS IN STRUCTURE	20,			
Occupied housing units	257,564	159,647	80,530	
1-unit, detached or attached	71.5%	76.0%	63.8%	
2 to 4 units	4.6%	2.1%	9.4%	
5 or more units	7.7%	4.7%	12.9%	
Mobile home, boat, RV, van, etc.	16.3%	17.2%	14.0%	
YEAR STRUCTURE BUILT				
Occupied housing units	257,564	159,647	80,530	
Built 2014 or later	1.7%	1.9%	1.5%	
Built 2010 to 2013	3.7%	3.2%	4.1%	
Built 2000 to 2009	18.9%	20.1%	15.7%	
Built 1980 to 1999	35.9%	35.8%	36.3%	
Built 1960 to 1979	25.1%	23.9%	26.5%	
Built 1940 to 1959	9.7%	10.3%	9.8%	
Built 1939 or earlier	5.0%	4.7%	6.1%	
VEHICLES AVAILABLE				
Occupied housing units	257,564	159,647	80,530	
None	7.1%	3.5%	14.3%	
	92.9%	96.5%	85.7%	
	-			
	257,564	159,647	80,530	
Gas	18.0%	17.4%	19.1%	
	80.4%	81.0%	79.2%	
All Other rules	0.9%	1.0%	0.8%	
	0.7%	0.6%	0.9%	
	057 504	450.047	00.500	
	201.304	109.047	00.530	
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	Total population White alone, not Hispanic or Latino		Black or African American alone or in combination with one or more other races, not Hispanic or Latino	-
	Estimate	Estimate	Estimate	
No telephone service available	2.1%	1.9%	2.9%	
1.01 or more occupants per room	2.2%	1.2%	3.0%	
SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN THE PAST 12 MONTHS				
Housing units with a mortgage (excluding units where SMOC cannot be computed)	87,691	62,391	20,247	
Less than 30 percent	74.6%	81.1%	58.0%	
30 percent or more	25.4%	18.9%	42.0%	
OWNER CHARACTERISTICS				
Owner-occupied housing units	162,905	117,084	36,818	
Median value (dollars)	120,000	130,400	92,600	
Median selected monthly owner costs with a	1,107	1,144	1,002	
mortgage (dollars) Median selected monthly owner costs without a	057	000	004	
mortgage (dollars)	357	366	324	
GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN THE PAST 12 MONTHS			1	
Occupied units paying rent (excluding units where GRAPI cannot be computed)	80,690	35,163	37,889	
Less than 30 percent	55.6%	58.8%	50.2%	
30 percent or more	44.4%	41.2%	49.8%	
GROSS RENT		10		
Occupied units paying rent	87,526	37,345	41,990	
Median gross rent (dollars)	760	787	730	
COMPUTERS AND INTERNET USE		,0		
Total households	257,564	159,647	80,530	
With a computer	85.1%	87.4%	80.2%	
With a broadband Internet subscription	71.2%	76.0%	60.2%	

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Data for the households, families, occupied housing units, owner-occupied housing units, and renter-occupied housing units lines refer to the specified race, Hispanic or Latino, American Indian or Alaska Native, or ancestry of the householder shown in the table. Data in the "Total population" column are shown regardless of the race, Hispanic or Latino, American Indian or Alaska Native, or ancestry of the person.

The Census Bureau introduced a new set of disability questions in the 2008 ACS questionnaire. Accordingly, comparisons of disability data from 2008 or later with data from prior years are not recommended. For more information on these questions and their evaluation in the 2006 ACS Content Test, see the Evaluation Report Covering Disability.

Employment and unemployment estimates may vary from the official labor force data released by the Bureau of Labor Statistics because of differences in survey design and data collection. For guidance on differences in employment and unemployment estimates from different sources go to Labor Force Guidance.

Industry codes are 4-digit codes and are based on the North American Industry Classification System 2012. The Industry categories adhere to the guidelines issued in Clarification Memorandum No. 2, "NAICS Alternate Aggregation Structure for Use By U.S. Statistical Agencies," issued by the Office of Management and Budget.

Occupation codes are 4-digit codes and are based on Standard Occupational Classification 2010.

Telephone service data are not available for cartain geographic areas due to problems with data collection of this greation that provide the service data are not available for the service data are available for the geographic areas affected. It may take several years in the ACS 5-year files until the estimates are available for the geographic areas affected.

Logical coverage edits applying a rules-based assignment of Medicaid, Medicare and military health coverage were added as of 2009 -- please see https://www.census.gov/library/working-papers/2010/demo/coverage_edits_final.html for more details. The 2008 data table in American FactFinder does not incorporate these edits. Therefore, the estimates that appear in these tables are not comparable to the estimates in the 2009 and later tables. Select geographies of 2008 data comparable to the 2009 and later tables are available at https://www.census.gov/data/tables/time-series/acs/1-year-re-run-health-insurance.html. The health insurance coverage category names were modified in 2010. See https://www.census.gov/topics/health/health-insurance/about/glossary.html#par_textimage_18 for a list of the insurance type definitions.

Data about computer and Internet use were collected by asking respondents to select "Yes" or "No" to each type of computer and each type of Internet subscription. Therefore, respondents were able to select more than one type of computer and more than one type of Internet subscription.

The category "with a broadband Internet subscription" refers to those who said "Yes" to at least one of the following types of Internet subscriptions: Broadband such as cable, fiber optic, or DSL; a cellular data plan; satellite; or a fixed wireless subscription.

An Internet "subscription" refers to a type of service that someone pays for to access the Internet such as a cellular data plan, broadband such as cable, fiber optic or DSL, or other type of service. This will normally refer to a service that someone is billed for directly for Internet alone or sometimes as part of a bundle.

"With a computer" includes those who said "Yes" to at least one of the following types of computers: Desktop or laptop; smartphone; tablet or other portable wireless computer; or some other type of computer.

Caution should be used when comparing data for computer and Internet use before and after 2016. Changes in 2016 to the questions involving the wording as well as the response options resulted in changed response patterns in the data. Most noticeable are increases in overall computer ownership or use, the total of Internet subscriptions, satellite subscriptions, and cellular data plans for a smartphone or other mobile device. For more detailed information about these changes, see the 2016 American Community Survey Content Test Report for Computer and Internet Use located at https://www.census.gov/programs-surveys/acs/technical-documentation/user-notes.html.

While the 2017 American Community Survey (ACS) data generally reflect the July 2015 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas, in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineations due to differences in the effective cates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.

2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.

3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.

4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.

5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.

6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.

7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.

8. An '(X)' means that the estimate is not applicable or not available.

Selected Socio-Economic Data

Congressional District 10 (115th Congress), Georgia

NH Any Part African American vis-à-vis NH White

Data Set: 2017 American Community Survey 1-Year Estimates

<u>29-Nov-18</u>

Population by Age

Congressional District 10 (115th Congress), Georgia



Household Type for Population in Households

Congressional District 10 (115th Congress), Georgia



Marital Status for the Population 15 Years and Over

Congressional District 10 (115th Congress), Georgia



Educational Attainment for the Population 25 Years and Older

Congressional District 10 (115th Congress), Georgia



Veterans in the Civilian Population 18 Years and Over

Congressional District 10 (115th Congress), Georgia



Disability by Age -- Civilian Noninstitutionalized Population

Congressional District 10 (115th Congress), Georgia



Geographical Mobility in the Past Year (Population 1 Year and Over)

Congressional District 10 (115th Congress), Georgia



Speak English Less than "Very Well" (Population 5 Years and Over)



Congressional District 10 (115th Congress), Georgia

Employment Status for the Population 16 years and over

Congressional District 10 (115th Congress), Georgia



Unemployment (Civilian Labor Force -- Ages 16 and Over)





Means of Transportation to Work (Workers 16 Years and Over)

Congressional District 10 (115th Congress), Georgia



Occupation for the Civilian Employed 16 Years and Over Population

Congressional District 10 (115th Congress), Georgia



Median Household Income in the Past 12 Months

Congressional District 10 (115th Congress), Georgia



Receipt of Food Stamps/SNAP in the Past 12 Months by Household

Congressional District 10 (115th Congress), Georgia



Median Family Income in the Past 12 Months

Congressional District 10 (115th Congress), Georgia



Per capita Income in the Past 12 Months

Congressional District 10 (115th Congress), Georgia



Lack of Health Insurance Coverage -- Civilian Noninstitutionalized Population



Congressional District 10 (115th Congress), Georgia

Family Households Below Poverty in the Past 12 Months





Female-headed Households with Related Children Below Poverty in the Past 12 Months



Congressional District 10 (115th Congress), Georgia

Home Owners and Renters by Household

Congressional District 10 (115th Congress), Georgia



Population Below Poverty in the Past 12 Months

Congressional District 10 (115th Congress), Georgia



No Vehicles Available by Household

Congressional District 10 (115th Congress), Georgia



More than One Person per Room (Crowding) by Household



Congressional District 10 (115th Congress), Georgia

Median Home Value -- Owner-Occupied



Congressional District 10 (115th Congress), Georgia

Rent as a Percentage of Household Income (30% or more) -- Renter-Occupied



Congressional District 10 (115th Congress), Georgia

Computers and Internet Use

Congressional District 10 (115th Congress), Georgia



U.S. Cen	sus Bureau ^{02869-JPB} Document 66-4 Filed 05/01/19 Page 260 of 306
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S0201	SELECTED POPULATION PROFILE IN THE UNITED STATES
	2017 American Community Survey 1-Year Estimates

Note: This is a modified view of the original table.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

			COM		
Subject	Congressional District 10 (115th Congress), Georgia				
	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino		
	Estimate	Estimate	Estimate		
TOTAL NUMBER OF RACES REPORTED					
Total population	736,838	481,487	190,223		
One race	97.1%	100.0%	94.7%		
Two races	2.7%	(X)	5.1%		
Three races	0.1%	(X)	0.2%		
Four or more races	0.0%	(X)	0.0%		
SEX AND AGE					
Total population	736,838	481,487	190,223		
Male	48.8%	49.4%	46.2%		
Female	51.2%	50.6%	53.8%		
Under 5 years	5.5%	5.0%	6.5%		
5 to 17 years	18.2%	15.8%	22.6%		
18 to 24 years	12.1%	12.1%	11.0%		
25 to 34 years	12.3%	11.8%	13.0%		
35 to 44 years	11.9%	11.4%	11.6%		
45 to 54 years	13.3%	13.6%	13.2%		
55 to 64 years	12.1%	13.1%	11.4%		
65 to 74 years	9.3%	10.9%	7.0%		
75 years and over	5.3%	6.4%	3.7%		
Median age (years)	36.4	39.6	32.8		
18 years and over	76.3%	79.2%	70.8%		
21 years and over	70.0%	72.7%	66.1%		

Other 1:18-cv-02869-J Pengressional District 10-415th Congress 0 970 91 Page 261 of 306

	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
62 years and over	17.9%	21.0%	13.2%
65 years and over	14.6%	17.3%	10.7%
Linder 18 years	174.056	100.006	EE 470
Male	F0 19/	F1 29/	55,470
Female	10.0%	/18.8%	45.0 %
	49.970	40.070	54.470
18 years and over	561.882	381.281	134.753
Male	48.3%	49.0%	46.4%
Female	51.7%	51.0%	53.6%
18 to 34 years	179,673	115,215	45,554
Male	49.3%	49.7%	48.6%
Female	50.7%	50.3%	51.4%
05 + 04			10
35 to 64 years	274,346	182,976	68,820
	49.0%	49.9%	46.6%
Female	51.0%	50.1%	53.4%
65 years and over	407.000	0000	00.070
Male	107,863	83,090	20,379
Female	45.0%	54.2%	40.3%
	00.070	0	00.070
RELATIONSHIP			
Population in households	709,147	467,388	179,219
Householder or spouse	55.7%	60.4%	46.4%
Child	30.8%	27.6%	36.4%
Other relatives	8.0%	6.6%	11.9%
Nonrelatives	5.4%	5.5%	5.3%
Unmarried partner	1.6%	1.5%	2.1%
HOUSEHOLDS BY TYPE			
Households	259,444	178,256	62,580
With own children of the householder under 18	70.5%	70.6%	68.2%
years	29.3%	27.4%	31.1%
Married-couple family	52.3%	58.4%	32.3%
With own children of the householder under 18	20.9%	22.0%	13.0%
Female householder, no husband present, family	13.4%	7.9%	30.4%
With own children of the householder under 18 years	6.6%	3.7%	15.7%
Nonfamily households	29.5%	29.4%	31.8%
Male householder	13.4%	13.5%	13.7%
Living alone	10.4%	10.0%	11.7%
Not living alone	3.0%	3.4%	1.9%
remaie nousenoider	16.1%	15.9%	18.1%
Living alone	13.1%	12.4%	16.7%
NOT IIVING AIONE	2.9%	3.5%	1.4%
Average household size	0.70	0.60	0.74
Average family size	2.13	2.08	2.74
	3.25	3.15	3.39

Subject 1:18-cv-02869-J Sengressional District 19 (1151) Generosa Differences Differences

	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino	
	Estimate	Estimate	Estimate	
MARITAL STATUS				
Now married execut experted	593,283	401,276	144,266	
Widowod	49.2%	54.9%	32.0%	
Divorced	5.1%	5.2%	5.4%	
Separated	9.8%	10.4%	9.4%	
Never married	33.6%	27.8%	4.4%	
Male 15 years and over	286,428	196,533	66,382	
Now married, except separated	51.6%	57.1%	34.7%	
Vildowed	2.4%	2.6%	2.8%	
Divorced	9.5%	9.9%	8.7%	
Never married	2.0%	1.3%	4.5%	
	01.070	20.070	10.070	
Female 15 years and over	306,855	204,743	77,884	
Now married, except separated	47.1%	52.7%	29.7%	
Widowed	7.5%	7.8%	7.6%	
Divorced	10.1%	10.8%	9.9%	
Separated	2.5%	2.0%	4.3%	
Never married	32.8%	26.7%	48.5%	
		CX^-		
Population 3 years and over enrolled in school	212 306	128 768	58 010	
Nursery school, preschool	5 7%	4.8%	6.4%	
Kindergarten	1.5%	4.3%	5.0%	
Elementary school (grades 1-8)	39.1%	34.4%	49.1%	
High school (grades 9-12)	19.3%	21.1%	18.8%	
College or graduate school	31.4%	35.4%	20.7%	
Male 3 years and over enrolled in school	100,946	62,067	25,434	
Percent enrolled in kindergarten to grade 12	67.7%	62.8%	82.4%	
Percent enrolled in college or graduate school	26.8%	32.1%	12.3%	
Female 3 years and over enrolled in school	111,360	66,701	33,485	
Percent enrolled in kindergarten to grade 12	58.7%	56.9%	65.7%	
Percent enrolled in college or graduate school	35.5%	38.5%	27.0%	
EDUCATIONAL ATTAINMENT				
Population 25 years and over	472,944	322,781	113.905	
Less than high school diploma	12.8%	8.5%	22.3%	
High school graduate (includes equivalency)	34.5%	33.6%	40.1%	
Some college or associate's degree	26.6%	28.1%	23.7%	
Bachelor's degree	15.4%	18.1%	7.0%	
Graduate or professional degree	10.8%	11.7%	7.0%	
High school graduate or higher	07.00/	04 504	77 70/	
Male, high school graduate or higher	87.2%	91.5%	11.1%	
Female, high school graduate or higher	85.8%	90.2%	/5./%	
Bachelor's degree or higher	88.6%	92.9%	/9.5%	
Mala bachelor's degree or higher	26.2%	29.8%	14.0%	
	25.3%	29.0%	12.4%	
remaie, bachelor's degree or higher	27.0%	30.5%	15.3%	

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
FERTILITY			
Women 15 to 50 years	183,316	116,069	48,705
Women 15 to 50 years who had a birth in the past 12	8,734	5,422	2,149
Unmarried women 15 to 50 years who had a birth in	3,468	1.821	1.095
the past 12 months	0,100	1,021	1,000
As a percent of all women with a birth in the past	39.7%	33.6%	51.0%
RESPONSIBILITY FOR GRANDCHILDREN UNDER 18 YEARS			
Population 30 years and over	428,920	293,863	103,598
Grandparents living with grandchild(ren)	4.3%	3.6%	5.8%
Grandparents responsible for grandchildren as a	34.1%	28.1%	45.9%
percentage of living with grandchildren			
VETERAN STATUS			
Civilian population 18 years and over	561.130	380.636	134.646
Civilian veteran	7.2%	8.0%	6.0%
DISABILITY STATUS		Ċ	
Total civilian noninstitutionalized population	721,618	475,296	181,887
With a disability	13.3%	13.6%	14.3%
		24	
Civilian noninstitutionalized population under 18 years	174,812	100,078	55,454
With a disability	4.3%	3.7%	5.5%
· · ·	A.		
Civilian noninstitutionalized population 18 to 64 years	441.756	294,018	106,938
With a disability	11 60/	11 10/	14 60/
	11.0%	11.1%	14.0%
Civilian noninstitutionalized population 65 years and	105.050	81 200	19 495
older	100,000	01,200	10,-30
With a disability	35.2%	34.7%	38.0%
Population 1 year and over	700 000	477 404	107 500
Same house	120,020	4//,121 95.10/	107,309
Different house in the U.S.	14.8%	1/1 8%	13 1%
Same county	6.5%	6.4%	6.3%
Different county	8.3%	8.4%	6.8%
Same state	6.3%	6.7%	5.3%
Different state	2.0%	1.7%	1.5%
Abroad	0.2%	0.1%	0.1%
PLACE OF BIRTH, CITIZENSHIP STATUS AND YEAR			
Native	698.141	472.236	183.136
Male	48.9%	49.6%	45.8%
Female	51.1%	50.4%	54.2%
Foreign born	38,697	9,251	7,087
Male	46.8%	39.2%	54.1%
Female	53.2%	60.8%	45.9%

Care 1:18-CV-02869-	Total population	Mite alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
Foreign born; naturalized U.S. citizen	19,978	5,302	4,184
Male	41.5%	37.8%	43.5%
Female	58.5%	62.2%	56.5%
Foreign born: not a U.S. citizen	19 710	2 040	2 003
Male	F2 49/	3,949	2,903
Female	47.6%	58.8%	30.7%
Population born outside the United States	38,697	9,251	7,087
Entered 2010 or later	18.9%	13.9%	22.6%
Entered 2000 to 2009	34.9%	41.3%	39.2%
Entered before 2000	46.2%	44.8%	38.2%
WORLD REGION OF BIRTH OF FOREIGN BORN			
Foreign-born population excluding population born at	38,697	9,251	7,087
Europe	18.8%	N	C N
Asia	24.8%	N	N N
Africa	15.1%	الأ	N
Oceania	0.5%	N	N
Latin America	37.7%	N	N
Northern America	3.3%	OF N	N
ANGUAGE SPOKEN AT HOME AND ABILITY TO SPEAK ENGLISH		EINOC'	
English only	696,298	457,434	177,821
Language other than English	9/2.4%	97.5%	90.7%
Speak English less than "very well"	7.0%	2.5%	3.3%
Opeak English less than very well	2.5%	0.7%	0.7%
EMPLOYMENT STATUS			
Population 16 years and over	581,979	395,183	140,006
In labor force	58.4%	58.5%	56.6%
Civilian labor force	58.2%	58.4%	56.6%
Employed	55.5%	56.2%	52.8%
Unemployed	2.7%	2.2%	3.8%
Unemployment Rate	4.6%	3.8%	6.7%
Armed Forces	0.1%	0.2%	0.1%
Not in labor force	41.6%	41.5%	43.4%
Females 16 years and over	301,271	201,794	75,421
In labor force	53.9%	52.0%	58.3%
Civilian labor force	53.9%	51.9%	58.3%
Employed	51.1%	49.8%	53.9%
Unemployed	2.8%	2.2%	4.3%
Unemployment Rate	5.2%	4.1%	7.4%
Workers 16 years and over	240.004	240.400	74 500
Car truck or van - drove alone	316,301	218,166	71,533
Car truck or van - carpooled	80.9%	81.7%	/8.9%
Public transportation (excluding taxicab)	9.6%	0.2%	13.7%
Walked	0.9%	0.9%	0.9%
	1.5%	1.570	1.3%

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
Other means	1.4%	1.2%	2.2%
Worked at home	5.6%	6.6%	3.0%
Mean travel time to work (minutes)	30.3	30.9	29.1
OCCUPATION			
Civilian employed population 16 years and over	323.152	222.024	73.877
Management, business, science, and arts	34.9%	38.5%	22.9%
occupations Service occupations	16.5%	1/ 0%	21 /0/
Sales and office occupations	10.3%	14.U%	24.4%
Natural resources, construction, and maintenance	0.5%	24.2%	20.2%
occupations	3.370	11.070	4.078
Production, transportation, and material moving occupations	16.3%	12.4%	28.0%
Male civilian employed population 16 years and over	169,184	121,591	33,189
Management, business, science, and arts	29.9%	32.7%	18.3%
Service occupations	13.0%	11.6%	18.8%
Sales and office occupations	16.4%	18.0%	11.9%
Natural resources, construction, and maintenance	17.5%	19.5%	8.5%
Production, transportation, and material moving	23.3%	18.3%	42.5%
occupations		<u> </u>	
Female civilian employed population 16 years and	153,968	100.433	40.688
over	100,000	100,100	10,000
occupations	40.4%	45.5%	26.6%
Service occupations	20.3%	16.9%	28.9%
Sales and office occupations	29.7%	31.8%	26.9%
Natural resources, construction, and maintenance	0.8%	0.7%	1.5%
Production, transportation, and material moving	8.7%	5.2%	16.1%
occupations			
NDUSTRY			
Civilian employed population 16 years and over	323,152	222,024	73,877
Agriculture, forestry, fishing and hunting, and mining	1.5%	1.5%	1.1%
Construction	6.9%	8.1%	2.2%
Manufacturing	11.4%	9.5%	16.8%
Wholesale trade	3.0%	3.3%	2 4%
Retail trade	12 9%	12 9%	12 9%
Transportation and warehousing, and utilities	6.3%	5.7%	9.4%
Information	1 3%	1.5%	0.6%
Finance and insurance, and real estate and rental	5.2%	6.2%	3.2%
and leasing	5.270	0.2 %	5.270
Proressional, scientific, and management, and administrative and waste management services	8.3%	8.9%	5.8%
Educational services, and health care and social	23.2%	22.1%	26.7%
Arts, entertainment, and recreation, and	8.9%	8.9%	8.1%
accommodation and food services	0.070	0.070	0.170
Other services (except public administration)	4.9%	5.7%	2.8%
	6.1%	5.7%	8.0%
CLASS OF WORKER			
			1

323,152

222,024

73,877

Civilian employed population 16 years and over

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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
Private wage and salary workers	76.1%	74.9%	79.1%
Government workers	18.5%	18.8%	18.0%
Self-employed workers in own not incorporated	5.2%	6.1%	2.8%
Unpaid family workers	0.2%	0.3%	0.0%
INCOME IN THE PAST 12 MONTHS (IN 2017 INFLATION-ADJUSTED DOLLARS) Households	259,444	178,256	62,580
Median household income (dollars)	53,479	61,768	34,646
With earnings	76.7%	77.4%	72.8%
Mean earnings (dollars)	73,449	80,256	52,521
With Social Security income	32.6%	34.1%	31.8%
Mean Social Security income (dollars)	19.104	20.671	15.130
With Supplemental Security Income	7.2%	5.2%	14.1%
Mean Supplemental Security Income (dollars)	10.277	11.040	9.724
With cash public assistance income	1.6%	1.2%	3.2%
Mean cash public assistance income (dollars)	2.308	2.435	2.216
With retirement income	18.7%	20.9%	14.9%
Mean retirement income (dollars)	28,894	31,724	17.650
With Food Stamp/SNAP benefits	12.2%	7.4%	26.3%
Families	182,888	125.848	42,680
Median family income (dollars)	67,863	76.721	42,685
Married-couple family	74.3%	82.7%	47.4%
Median income (dollars)	79.768	84 443	70 983
Male householder, no spouse present, family	6.7%	6.1%	8.0%
Median income (dollars)	45 645	47 109	26 563
Female householder, no husband present, family	19.0%	11.2%	44.6%
Median income (dollars)	31 680	/5 105	27 575
	726 929	43,193	100 222
Per capita income (dollars)	730,030	21 219	190,223
With earnings for full-time, year-round workers:	20,433	51,210	10,552
Male	132 251	94 553	25.836
Female	96.466	61 578	23,030
Mean earnings (dollars) for full-time, year-round	30,400	01,070	21,400
Male	63.827	70.413	44.462
Female	44.521	49.390	34.656
Median earnings (dollars) full-time, year-round	,0_1	,	
Male	48 726	52 005	36 393
Female	36,968	41 817	29 827
HEALTH INSURANCE COVERAGE		,0	
Civilian noninstitutionalized population	721.618	475,296	181.887
With private health insurance	70.0%	75.6%	57.2%
With public coverage	31.0%	28.7%	39.3%
No health insurance coverage	10.2%	8.8%	11.9%
POVERTY RATES FOR FAMILIES AND PEOPLE FOR WHOM POVERTY STATUS IS DETERMINED	40.5%	0.70/	00.7%
With related children of the householder under 19	10.5%	6.7%	20.7%
Verify related children of the householder under 5	14.8%	9.4%	27.8%
years only Married couple family	16.6%	13.0%	37.0%
	4 5%	4 1%	51%
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	Total population	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino
	Estimate	Estimate	Estimate
With related children of the householder under 18	5.9%	5.4%	5.9%
With related children of the householder under 5	7.5%	6.9%	N
years only	7.070	0.070	
Female householder, no husband present, family	30.3%	20.5%	34.7%
With related children of the householder under 18	34.7%	22.6%	40.6%
With related children of the householder under 5	48.2%	44.1%	55.6%
years only	40.270		00.070
All people	15.7%	11.7%	25.7%
Under 18 years	17.1%	8.9%	32.6%
Related children of the householder under 18 years	17.0%	8.8%	32.1%
Related children of the householder under 5 years	22.1%	12.0%	45.8%
Related children of the householder 5 to 17 years	15.4%	7.8%	28.2%
18 years and over	15.2%	12.5%	22.6%
18 to 64 years	16.6%	14.0%	23.6%
65 years and over	9.5%	7.3%	16.8%
People in families	11.4%	7.0%	22.3%
Unrelated individuals 15 years and over	38.2%	35.6%	42.5%
HOUSING TENURE		10,0,0	
Occupied housing units	259.444	178.256	62.580
Owner-occupied housing units	67.4%	74.5%	51.1%
Renter-occupied housing units	32.6%	25.5%	48.9%
Average household size of owner-occupied unit	2.77	2.72	2.73
Average household size of renter-occupied unit	2.65	2.56	2.75
UNITS IN STRUCTURE			
Occupied housing units	259,444	178,256	62,580
1-unit, detached or attached	76.2%	83.1%	59.0%
2 to 4 units	5.3%	2.8%	11.3%
5 or more units	7.9%	5.7%	11.3%
Mobile home, boat, RV, van, etc.	10.6%	8.4%	18.4%
YEAR STRUCTURE BUILT			
Occupied housing units	259,444	178,256	62,580
Built 2014 or later	2.7%	2.7%	2.6%
Built 2010 to 2013	2.3%	2.2%	1.6%
Built 2000 to 2009	27.1%	27.8%	23.6%
Built 1980 to 1999	37.2%	37.6%	36.2%
Built 1960 to 1979	19.8%	18.4%	25.2%
Built 1940 to 1959	6.7%	6.5%	7.8%
Built 1939 or earlier	4.2%	4.7%	3.0%
VEHICLES AVAILABLE			
Occupied housing units	259,444	178,256	62,580
None	5.7%	3.1%	13.5%
1 or more	94.3%	96.9%	86.5%
HOUSE HEATING FUEL			
Occupied nousing units	259,444	178,256	62,580
Gas	34.0%	32.7%	37.7%
	64.0%	65.2%	60.9%
	1.6%	1.7%	1.1%
	0.4%	0.4%	0.3%
	050.411	(70.075	00.505
	259.444	1/8.256	62,580

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	Total population White alone, no Hispanic or Latino		hite alone, not Hispanic or Latino Black or African American alone or in combination with one or more other races, not Hispanic or Latino	
	Estimate	Estimate	Estimate	
No telephone service available	1.7%	1.5%	2.4%	
1.01 or more occupants per room	1.9%	1.2%	2.9%	
SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN THE PAST 12 MONTHS				
Housing units with a mortgage (excluding units where SMOC cannot be computed)	111,204	86,018	17,927	
Less than 30 percent	73.1%	75.0%	60.1%	
30 percent or more	26.9%	25.0%	39.9%	
OWNER CHARACTERISTICS				
Owner-occupied housing units	174,763	132,759	31,975	
Median value (dollars)	172,100	188,300	108,200	
Median selected monthly owner costs with a mortgage (dollars)	1,289	1,306	1,240	
Median selected monthly owner costs without a mortgage (dollars)	388	391	376	
GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN THE PAST 12 MONTHS			1	
GRAPI cannot be computed)	76,518	41,080	27,631	
Less than 30 percent	48.5%	47.6%	46.6%	
30 percent or more	51.5%	52.4%	53.4%	
GROSS RENT		0		
Occupied units paying rent	79,707	42,716	28,583	
Median gross rent (dollars)	834	892	760	
COMPUTERS AND INTERNET USE		0		
Total households	259,444	178,256	62,580	
With a computer	88.8%	92.0%	79.0%	
With a broadband Internet subscription	79.7%	83.8%	67.2%	

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Data for the households, families, occupied housing units, owner-occupied housing units, and renter-occupied housing units lines refer to the specified race, Hispanic or Latino, American Indian or Alaska Native, or ancestry of the householder shown in the table. Data in the "Total population" column are shown regardless of the race, Hispanic or Latino, American Indian or Alaska Native, or ancestry of the person.

The Census Bureau introduced a new set of disability questions in the 2008 ACS questionnaire. Accordingly, comparisons of disability data from 2008 or later with data from prior years are not recommended. For more information on these questions and their evaluation in the 2006 ACS Content Test, see the Evaluation Report Covering Disability.

Employment and unemployment estimates may vary from the official labor force data released by the Bureau of Labor Statistics because of differences in survey design and data collection. For guidance on differences in employment and unemployment estimates from different sources go to Labor Force Guidance.

Industry codes are 4-digit codes and are based on the North American Industry Classification System 2012. The Industry categories adhere to the guidelines issued in Clarification Memorandum No. 2, "NAICS Alternate Aggregation Structure for Use By U.S. Statistical Agencies," issued by the Office of Management and Budget.

Occupation codes are 4-digit codes and are based on Standard Occupational Classification 2010.

Telephone service data are not available for cartain geographic areas due to problems with data collection of this greation that proceed in 2015 and 2016. Both ACS 1-year and ACS 5-year files were affected. It may take several years in the ACS 5-year files until the estimates are available for the geographic areas affected.

Logical coverage edits applying a rules-based assignment of Medicaid, Medicare and military health coverage were added as of 2009 -- please see https://www.census.gov/library/working-papers/2010/demo/coverage_edits_final.html for more details. The 2008 data table in American FactFinder does not incorporate these edits. Therefore, the estimates that appear in these tables are not comparable to the estimates in the 2009 and later tables. Select geographies of 2008 data comparable to the 2009 and later tables are available at https://www.census.gov/data/tables/time-series/acs/1-year-re-run-health-insurance.html. The health insurance coverage category names were modified in 2010. See https://www.census.gov/topics/health/health-insurance/about/glossary.html#par_textimage_18 for a list of the insurance type definitions.

Data about computer and Internet use were collected by asking respondents to select "Yes" or "No" to each type of computer and each type of Internet subscription. Therefore, respondents were able to select more than one type of computer and more than one type of Internet subscription.

The category "with a broadband Internet subscription" refers to those who said "Yes" to at least one of the following types of Internet subscriptions: Broadband such as cable, fiber optic, or DSL; a cellular data plan; satellite; or a fixed wireless subscription.

An Internet "subscription" refers to a type of service that someone pays for to access the Internet such as a cellular data plan, broadband such as cable, fiber optic or DSL, or other type of service. This will normally refer to a service that someone is billed for directly for Internet alone or sometimes as part of a bundle.

"With a computer" includes those who said "Yes" to at least one of the following types of computers: Desktop or laptop; smartphone; tablet or other portable wireless computer; or some other type of computer.

Caution should be used when comparing data for computer and Internet use before and after 2016. Changes in 2016 to the questions involving the wording as well as the response options resulted in changed response patterns in the data. Most noticeable are increases in overall computer ownership or use, the total of Internet subscriptions, satellite subscriptions, and cellular data plans for a smartphone or other mobile device. For more detailed information about these changes, see the 2016 American Community Survey Content Test Report for Computer and Internet Use located at https://www.census.gov/programs-surveys/acs/technical-documentation/user-notes.html.

While the 2017 American Community Survey (ACS) data generally reflect the July 2015 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas, in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineations due to differences in the effective cates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.

2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.

3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.

4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.

5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.

6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.

7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.

8. An '(X)' means that the estimate is not applicable or not available.

Selected Socio-Economic Data

Georgia

NH Any Part African American, NH Asian American, and Latino vis-à-vis NH White

Data Set: 2017 American Community Survey 1-Year Estimates

<u>29-Nov-18</u>

Population by Age

Georgia



Household Type for Population in Households

Georgia



Marital Status for the Population 15 Years and Over

Georgia



Educational Attainment for the Population 25 Years and Older

Georgia



Veterans in the Civilian Population 18 Years and Over

Georgia



Disability by Age -- Civilian Noninstitutionalized Population

Georgia



Source: S0201 SELECTED POPULATION PROFILE Data Set: 2017 American Community Survey 1-Year Estimates

Geographical Mobility in the Past Year (Population 1 Year and Over)

Georgia



Speak English Less than "Very Well" (Population 5 Years and Over)



Georgia

Employment Status for the Population 16 years and over

Georgia



Unemployment (Civilian Labor Force -- Ages 16 and Over)

Georgia



Means of Transportation to Work (Workers 16 Years and Over)

Georgia



Occupation for the Civilian Employed 16 Years and Over Population

Georgia



Median Household Income in the Past 12 Months





Receipt of Food Stamps/SNAP in the Past 12 Months by Household

Georgia



Median Family Income in the Past 12 Months

Georgia



Per capita Income in the Past 12 Months

Georgia



Lack of Health Insurance Coverage -- Civilian Noninstitutionalized Population



Georgia

Family Households Below Poverty in the Past 12 Months

Georgia



Female-headed Households with Related Children Below Poverty in the Past 12 Months



Georgia

Home Owners and Renters by Household

Georgia



Population Below Poverty in the Past 12 Months

Georgia



No Vehicles Available by Household

Georgia



More than One Person per Room (Crowding) by Household

Georgia



Median Home Value -- Owner-Occupied





Rent as a Percentage of Household Income (30% or more) -- Renter-Occupied

Georgia



Computers and Internet Use

Georgia



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S0201	SELECTED POPULATION PROFILE IN THE UNITED STATES
	2017 American Community Survey 1-Year Estimates

Note: This is a modified view of the original table.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	COM					
Subject	Georgia					
	Total population	Hispanic or Latino (of any race) (200-299)	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino	Asian alone, not Hispanic or Latino	
	Estimate	Estimate	Estimate	Estimate	Estimate	
TOTAL NUMBER OF RACES REPORTED						
Total population	10,429,379	1,001,472	5,487,048	3,379,132	408,067	
One race	97.3%	94.8%	100.0%	96.0%	100.0%	
Two races	2.5%	4.6%	(X)	3.5%	(X)	
Three races	0.2%	0.6%	(X)	0.4%	(X)	
Four or more races	0.0%	0.1%	(X)	0.1%	(X)	
SEX AND AGE						
Total population	10.429.379	1.001.472	5.487.048	3.379.132	408.067	
Male	48.6%	52.2%	49.2%	46.7%	48.0%	
Female	51.4%	47.8%	50.8%	53.3%	52.0%	
Under 5 years	6.3%	10.2%	5.1%	6.9%	5.7%	
5 to 17 years	17.8%	26.4%	14.9%	20.0%	15.7%	
18 to 24 years	9.8%	11.4%	8.6%	11.1%	9.9%	
25 to 34 years	13.6%	15.1%	12.5%	14.5%	17.3%	
35 to 44 years	13.3%	16.5%	12.3%	13.6%	17.3%	
45 to 54 years	13.6%	10.8%	14.3%	13.3%	14.7%	
55 to 64 years	12.2%	5.9%	14.2%	11.0%	10.4%	
65 to 74 years	8.3%	2.4%	10.9%	6.4%	5.8%	
75 years and over	5.1%	1.2%	7.2%	3.3%	3.2%	
Median age (years)	36.8	26.3	42.3	33.2	35.6	
10 years and aver						
18 years and over	75.9%	63.4%	80.0%	73.1%	78.6%	
21 years and over	71.5%	58.2%	76.1%	68.2%	74.0%	

ීස් ණ 1:18-cv-02869-₹	JPB Docume Total population	nt 66-4 Filed Hispanic or Latino (of any race) (200-299)	OSAODA Pa White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino	Asian alone, not Hispanic or Latino
	Estimate	Estimate	Estimate	Estimate	Estimate
62 years and over	16.7%	5.0%	22.0%	12.3%	11.6%
65 years and over	13.4%	3.6%	18.1%	9.6%	8.9%
Under 18 years	2,514,765	366,823	1,098,952	909,103	87,280
Male	50.9%	51.6%	51.4%	50.1%	49.9%
Female	49.1%	48.4%	48.6%	49.9%	50.1%
18 years and over	7,914,614	634,649	4,388,096	2,470,029	320,787
	47.9%	52.6%	48.7%	45.4%	47.5%
Female	52.1%	47.4%	51.3%	54.6%	52.5%
18 to 34 years	2 420 054	265 651	1 150 041	964 607	111 009
Male	2,439,934	52.8%	1,159,941	48.0%	50.6%
Female	50.0%	46.2%	10.2%	40.0 %	10.0%
	50.078	40.278	43.270	52.078	49.470
35 to 64 years	4,072,810	332,845	236.301	1,279,685	173.343
Male	48.2%	52.5%	49.3%	45.4%	46.7%
Female	51.8%	47.5%	50.7%	54.6%	53.3%
		G			
65 years and over	1,401,850	36,153	991,854	325,737	36,436
Male	43.3%	44.7%	44.7%	38.9%	41.9%
Female	56.7%	55.3%	55.3%	61.1%	58.1%
RELATIONSHIP		C.M.			
Population in households	10,170,586	981,736	5,378,583	3,260,141	399,765
Householder or spouse	54.4%	40.2%	61.9%	46.6%	54.5%
Child	31.6%	41.5%	26.9%	36.2%	29.5%
Other relatives	8.3%	11.4%	5.7%	11.3%	11.3%
Nonrelatives	5.7%	6.8%	5.5%	5.9%	4.6%
Unmarried partner	2.0%	2.0%	1.9%	2.2%	0.7%
Households	3 745 074	253.050	2 153 532	1 165 026	124 436
Family households	67.4%	80.1%	67.7%	63.2%	78.2%
With own children of the householder under 18	29.5%	52.0%	25.5%	30.6%	41.3%
years	20.070	02.070	20.070	00.070	11.070
Married-couple family	47.8%	53.4%	55.3%	30.4%	67.0%
vears	19.4%	35.2%	19.9%	12.9%	37.1%
Female householder, no husband present, family	14.9%	18.2%	8.5%	27.0%	7.4%
With own children of the householder under 18	8.2%	12.9%	4.0%	15.4%	3.1%
years Nonfamily households	32.6%	19.9%	32.3%	36.8%	21.8%
Male householder	15.0%	12.1%	14.7%	16.2%	12.3%
Living alone	11.6%	7.8%	11.2%	13.4%	8.5%
Not living alone	3.3%	4.3%	3.5%	2.8%	3.8%
Female householder	17.6%	7.8%	17.6%	20.6%	9.5%
Living alone	15.1%	6.0%	15.0%	18.1%	7.3%
Not living alone	2.5%	1.8%	2.6%	2.5%	2.2%
Average nousenoid SiZe	2.72	3.64	2.56	2.74	3.14
Average ranning Size	3.31	3.97	3.10	3.52	3.54

Ethiet 1:18-cv-02869-J	PB Document 66-4 Filed 05/01/19 Page 299 of 30)6	
	Total population	Hispanic or Latino (of any race) (200-299)	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino	Asian alone, not Hispanic or Latino	
	Estimate	Estimate	Estimate	Estimate	Estimate	
MARITAL STATUS						
Population 15 years and over	8,349,724	687,875	4,590,182	2,627,445	333,836	
Now married, except separated	46.7%	48.3%	54.7%	30.5%	61.6%	
Widowed	5.4%	2.4%	6.3%	4.9%	4.1%	
Divolced	11.3%	6.8%	12.1%	12.1%	3.9%	
Separated Never morried	2.2%	3.3%	1.5%	3.4%	0.8%	
	34.4%	39.2%	25.5%	49.1%	29.7%	
Male 15 years and over	4.009.958	363,427	2,239,150	1,197,860	158.396	
Now married, except separated	48.9%	48.7%	56.3%	33.9%	60.5%	
Widowed	2.2%	0.9%	2.7%	1.9%	1.0%	
Divorced	9.9%	5.7%	10.8%	10.2%	4.2%	
Separated	1.8%	2.2%	1.3%	2.8%	0.5%	
Never married	37.2%	42.5%	28.9%	51.1%	33.8%	
Female 15 years and over	4,339,766	324,448	2,351,032	1,429,585	175,440	
Now married, except separated	44.7%	47.8%	53.2%	27.7%	62.6%	
Widowed	8.3%	4.0%	9.6%	7.4%	6.8%	
Divorced	12.5%	8.0%	13.2%	13.6%	3.6%	
Separated	2.6%	4.6%	1.7%	4.0%	1.0%	
Never married	31.8%	35.6%	22.2%	47.3%	25.9%	
		28				
Population 3 years and over enrolled in school	2,748,599	337,287	1,218,564	1,027,601	114,921	
Nursery school, preschool	6.4%	6.1%	6.4%	6.6%	5.9%	
Kindergarten	4.9%	6.4%	4.5%	4.8%	5.3%	
Elementary school (grades 1-8)	41.8%	50.5%	40.7%	41.0%	35.0%	
High school (grades 9-12)	21.7%	22.4%	22.2%	21.4%	16.2%	
College or graduate school	25.2%	14.6%	26.2%	26.3%	37.7%	
Male 3 years and over enrolled in school	1 225 200	170.461	600.260	492.072	57 521	
Percent enrolled in kindergarten to grade 12	71 7%	80.7%	70.4%	402,972	5/ 1%	
Percent enrolled in college or graduate school	21.5%	13.2%	22.9%	20.8%	39.6%	
Female 3 years and over enrolled in school	1 413 300	166.826	618 295	544 629	57 400	
Percent enrolled in kindergarten to grade 12	65.3%	77.8%	64.6%	62.9%	58.9%	
Percent enrolled in college or graduate school	28.6%	16.0%	29.3%	31.1%	35.7%	
	201070			0,0		
EDUCATIONAL ATTAINMENT						
Population 25 years and over	6,896,026	520,525	3,914,442	2,096,453	280,198	
Less than high school diploma	13.0%	39.1%	9.1%	13.6%	13.3%	
High school graduate (includes equivalency)	28.1%	26.4%	27.3%	31.5%	17.6%	
Some college or associate's degree	28.1%	17.7%	28.6%	31.4%	15.0%	
Bachelor's degree	19.0%	11.4%	21.7%	14.4%	29.5%	
Graduate or professional degree	11.9%	5.4%	13.2%	9.1%	24.7%	
High school graduate or higher	87.0%	60.9%	90.9%	86.4%	86.7%	
Male, high school graduate or higher	85.8%	57.7%	90.2%	84.5%	88.6%	
Female, high school graduate or higher	88.2%	64.5%	91.5%	88.0%	85.1%	
Bachelor's degree or higher	30.9%	16.8%	35.0%	23.5%	54.1%	
Male, bachelor's degree or higher	29.9%	15.4%	35.0%	19.9%	56.7%	
Female, bachelor's degree or higher	31.8%	18.3%	34.9%	26.4%	51.9%	

Cutier 1:18-cv-02869-J	PB Docume Total population	nt 66-4 Filed Hispanic or Latino (of any race) (200-299)	OSOUPIAS Pa White alone, not Hispanic or Latino	Ige 300 of 306 Black or African American alone or in combination with one or more other races, not Hispanic or Latino	Asian alone, not Hispanic or Latino
	Estimate	Estimate	Estimate	Estimate	Estimate
FERTILITY					
Women 15 to 50 years	2,596,009	260,943	1,243,588	930,678	121,612
Women 15 to 50 years who had a birth in the past 12 months	141,334	18,031	63,122	52,269	4,998
Unmarried women 15 to 50 years who had a birth in the past 12 months	56,098	5,496	15,139	34,232	418
As a percent of all women with a birth in the past 12 months	39.7%	30.5%	24.0%	65.5%	8.4%
RESPONSIBILITY FOR GRANDCHILDREN UNDER 18 YEARS					
Population 30 years and over	6,163,805	446,440	3,561,412	1,836,135	246,186
Grandparents living with grandchild(ren)	4.1%	6.2%	3.1%	5.4%	4.9%
Grandparents responsible for grandchildren as a percentage of living with grandchildren	38.4%	24.9%	40.8%	42.1%	15.9%
VETERAN STATUS					
Civilian population 18 years and over	7 867 010	628 119	4 358 520	2 461 204	319 857
Civilian veteran	7.9%	3.4%	9.0%	7.9%	1.4%
	1.070	0.170		1.070	1.170
DISABILITY STATUS			Ś.		
Total civilian noninstitutionalized population	10,241,594	982,865	5,403,301	3,298,056	406,512
With a disability	12.2%	5.4%	13.9%	12.4%	5.5%
Civilian noninstitutionalized population under 18 years	2,512,044	366,571	1,098,362	907,298	87,280
With a disability	3.9%	2.7%	4.4%	4.1%	1.8%
Civilian noninstitutionalized population 18 to 64 years	6,357 414	580,504	3,332,777	2,074,363	282,976
With a disability	10.4%	5.5%	10.8%	11.9%	4.0%
Civilian noninstitutionalized population 65 years and	1,372,136	35,730	972,162	316,395	36,256
older With a disability	35.8%	32.7%	35.1%	39.1%	25.9%
	30.070	32.170	55.170	33.170	20.070
RESIDENCE 1 YEAR AGO					
Population 1 year and over	10,299,497	980,185	5,434,845	3,330,826	404,111
Same house	85.1%	84.9%	86.4%	83.4%	82.3%
Different house in the U.S.	14.4%	13.7%	13.3%	16.3%	14.4%
Same county	7.0%	6.7%	6.1%	8.6%	6.6%
Different county	7.4%	7.0%	7.2%	7.7%	7.8%
Same state	4.7%	3.7%	4.6%	5.1%	3.9%
Different state	2.7%	3.3%	2.6%	2.5%	3.9%
Abroad	0.6%	1.4%	0.3%	0.4%	3.3%
PLACE OF BIRTH, CITIZENSHIP STATUS AND YEAR OF ENTRY					
Native	9,363,411	592,547	5,325,069	3,202,620	116,620
Male	48.4%	50.5%	49.3%	46.5%	52.3%
Female	51.6%	49.5%	50.7%	53.5%	47.7%
Foreign born	1 065 968	408 925	161 070	176 512	201 117
Male	50.2%	5/ 7%	101,375 /6.8%	50.1%	/6 20/
Female	/0.2%	15 20/	40.0% 53.2%	10 0%	40.3% 52.7%
	49.070	40.076	55.270	49.970	55.770
Foreign born; naturalized U.S. citizen	464.394	107.064	88.486	109.302	147.142

Europert 1:18-cv-02869-J	PB Document 66-4 Filed		05/01/19 Page 301 of 306			
	Total population	Hispanic or Latino (of any race) (200-299)	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino	Asian alone, not Hispanic or Latino	
	Estimato	Estimato	Estimato	Estimato	Estimato	
Male		Estimate 51.6%				
Female	52.6%	18.4%	43.3 %	52.0%	4J.376	
	52.078	40.476	54.576	52.570	54.170	
Foreign born: not a U.S. citizen	601 574	301 861	73 493	67 210	144 305	
Male	52.3%	55.8%	48.4%	55.0%	46.8%	
Female	47.7%	44.2%	51.6%	45.0%	53.2%	
		11.270	01.070	10.070	00.270	
Population born outside the United States	1.065.968	408.925	161.979	176.512	291.447	
Entered 2010 or later	22.9%	17.5%	22.7%	21.6%	30.3%	
Entered 2000 to 2009	31.5%	38.8%	27.2%	27.8%	26.6%	
Entered before 2000	45.7%	43.7%	50.1%	50.5%	43.1%	
WORLD REGION OF BIRTH OF FOREIGN BORN						
Foreign-born population excluding population born at	1,065,968	408,925	161,979	176,512	291,447	
sea						
Europe	9.3%	0.5%	54.1%	4.0%	0.6%	
Asia	31.0%	0.2%	16.9%	1.0%	97.3%	
Africa	9.3%	0.0%	5.8%	49.4%	1.0%	
	0.5%	0.0%	1.4%	0.6%	0.1%	
Latin America	48.1%	99.3%	12.3%	43.9%	0.8%	
Northern America	1.7%	0.0%	9.4%	1.2%	0.3%	
LANGUAGE SPOKEN AT HOME AND ABILITY TO SPEAK ENGLISH		CRAC				
Population 5 years and over	9,774,156	899,356	5,207,597	3,144,514	384,788	
English only	85.9%	21.3%	96.3%	95.6%	19.9%	
Language other than English	14.1%	78.7%	3.7%	4.4%	80.1%	
Speak English less than "very well"	5.5%	34.9%	0.8%	1.1%	34.2%	
EMPLOYMENT STATUS						
Population 16 years and over	8,196,727	667,953	4,523,634	2,570,699	328,469	
In labor force	63.3%	69.9%	61.4%	64.6%	66.0%	
Civilian labor force	62.7%	68.9%	60.7%	64.3%	65.8%	
Employed	59.1%	66.0%	58.1%	58.5%	63.4%	
Unemployed	3.6%	2.9%	2.6%	5.7%	2.4%	
Unemployment Rate	5.8%	4.3%	4.3%	8.9%	3.6%	
Armed Forces	0.6%	1.0%	0.7%	0.3%	0.3%	
Not in labor force	36.7%	30.1%	38.6%	35.4%	34.0%	
Females 16 years and over	4,261,976	315,676	2,318,898	1,397,638	172,562	
In labor force	58.5%	57.4%	54.9%	64.8%	57.7%	
Civilian labor force	58.3%	57.1%	54.8%	64.7%	57.7%	
Employed	54.7%	53.6%	52.3%	59.0%	55.7%	
Unemployed	3.6%	3.5%	2.5%	5.7%	2.0%	
Unemployment Rate	6.2%	6.0%	4.6%	8.8%	3.5%	
vvorkers 16 years and over	4,782,581	436,696	2,612,514	1,468,147	204,805	
Car, truck, or van - drove alone	78.7%	65.1%	82.2%	77.6%	72.8%	
Car, truck, or van - carpooled	9.9%	23.8%	7.4%	9.4%	15.3%	
Public transportation (excluding faxicab)	2.1%	2.1%	0.8%	4.4%	3.6%	
vvaiked	1.6%	1.9%	1.5%	1.6%	1.6%	
Other means	1.9%	3.6%	1.4%	2.3%	1.9%	

රිස්ජ 1:18-cv-02869-J	PB Docume Total population	nt 66-4 Filed Hispanic or Latino (of any race) (200-299)	05/010/19 Pa White alone, not Hispanic or Latino	UC 302 of 306 Black or African American alone or in combination	Asian alone, not Hispanic or Latino
	Estimate			with one or more other races, not Hispanic or Latino	
		Estimate	Estimate	Estimate	Estimate
Worked at home	5.8%	3.5%	6.8%	4.7%	4.8%
Mean travel time to work (minutes)	28.8	29.1	28.2	29.5	30.0
OCCURATION					
Civilian employed population 16 years and over	4 0 4 4 0 4 5	440 722	0.000.740	1 504 740	200.244
Management business science and arts	4,041,040	440,732	2,020,740	1,504,740	50.2%
occupations	57.270	10.2 /0	43.2 /0	50.078	50.278
Service occupations	16.6%	23.1%	13.2%	20.5%	16.8%
Sales and office occupations	23.5%	16.1%	23.8%	25.7%	20.3%
Natural resources, construction, and maintenance occupations	8.8%	24.1%	9.0%	5.1%	2.2%
occupations	13.8%	18.5%	10.8%	18.1%	10.5%
Male civilian employed population 16 years and over	2,510,196	271,472	1,415,223	680,582	112,191
Management, business, science, and arts occupations	33.2%	15.6%	39.0%	24.6%	52.9%
Service occupations	14.3%	18.1%	11.5%	19.0%	11.0%
Sales and office occupations	17.1%	10.6%	17.6%	18.2%	19.0%
Natural resources, construction, and maintenance occupations	16.1%	36.6%	16.0%	10.4%	3.9%
Production, transportation, and material moving occupations	19.4%	19.1%	15.9%	27.8%	13.2%
Ferrels sighter createned requilation 40 years and					
over	2,331,649	169,260	1,213,525	824,158	96,050
occupations	41.7%	22.5%	48.1%	35.5%	47.0%
Service occupations	19.2%	31.1%	15.2%	21.8%	23.6%
Sales and office occupations	30.5%	24.9%	31.0%	31.9%	21.7%
occupations	1.0%	4.0%	0.8%	0.8%	0.2%
Production, transportation, and material moving occupations	7.7%	17.5%	4.8%	10.0%	7.4%
Civilian employed population 16 years and over	4 0 4 4 0 4 5	440 722	2 6 2 9 7 4 9	1 504 740	200.244
Agriculture, forestry, fishing and hunting, and mining	4,841,845	2.6%	2,020,740	0.4%	0.1%
Construction	0.70(7.00(0.000	4.50/
Constituction	6.7%	21.3%	7.0%	2.8%	1.5%
Wholesale trade	10.5%	14.3%	10.5%	9.6%	11.3%
Retail trade	2.0%	2.0%	3.3%	12.6%	3.0%
Transportation and warehousing and utilities	F 50/	0.9%	F 6%	0.6%	14.3%
	2.4%	1.8%	2.4%	9.0%	3.2 %
Finance and insurance, and real estate and rental	6.2%	3.5%	6.8%	6.1%	5.8%
and leasing Professional, scientific, and management, and	12.1%	13.5%	12.5%	10.3%	17.7%
administrative and waste management services Educational services, and health care and social	20.8%	9.5%	21.5%	23.4%	17.5%
Arts, entertainment, and recreation, and	0 /0/	10 /0/	Q 10/	10.70/	10.40/
accommodation and food services Other services (excent public administration)	9.4%	12.4%	5.0%	10.7%	10.4%
Public administration	4.9%	4.2%	5.0%	4.1%	10.1%
	4.8%	2.2%	4.8%	6.1%	2.1%
CLASS OF WORKER					
Civilian employed population 16 years and over	4,841,845	440,732	2,628,748	1,504,740	208,241
Private wage and salary workers	80.2%	86.2%	79.3%	79.3%	85.4%
Subject 1:18-cv-02869-J	PB Docume Total population	nt 66-4 Filed Hispanic or Latino (of any race) (200-299)	OSOTIAS Pa White alone, not Hispanic or Latino	Age 303 of 306 Black or African American alone or in combination with one or more other races, not Hispanic or Latino	Asian alone, not Hispanic or Latino
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	Estimate	Estimate	Estimate	Estimate	Estimate
Government workers	13.9%	5.5%	14.5%	16.4%	8.3%
Self-employed workers in own not incorporated	5.7%	8.0%	6.0%	4.3%	5.9%
Unpaid family workers	0.1%	0.3%	0.1%	0.1%	0.4%
INCOME IN THE PAST 12 MONTHS (IN 2017 INFLATION-ADJUSTED DOLLARS)					
Households	3,745,074	253,059	2,153,532	1,165,026	124,436
Median household income (dollars)	56,183	46,144	65,420	42,727	77,485
With earnings	79.0%	92.1%	76.3%	79.7%	91.1%
Mean earnings (dollars)	81,659	64,498	94,420	60,046	109,529
With Social Security income	29.1%	10.5%	34.3%	25.6%	14.2%
Mean Social Security income (dollars)	18,522	14,941	20,246	14,770	17,321
With Supplemental Security Income	5.4%	2.5%	4.3%	8.3%	3.4%
Mean Supplemental Security Income (dollars)	9,611	8,644	10,426	8,969	8,243
With cash public assistance income	1.5%	1.9%	1.2%	2.0%	1.5%
Mean cash public assistance income (dollars)	2,575	4,234	2,584	2,237	1,822
With retirement income	17.1%	5.7%	20.4%	14.7%	6.0%
Mean retirement income (dollars)	26,299	23,523	27,929	22,324	29,188
With Food Stamp/SNAP benefits	12.6%	15.1%	7.4%	22.4%	4.9%
Families	2,525,783	202,725	1,457,537	735,727	97,299
Median family income (dollars)	67,983	47,473	80,060	51,150	85,055
Married-couple family	70.8%	66.6%	81.8%	48.1%	85.7%
Median income (dollars)	83,573	54,949	89,419	75,489	94,153
Male householder, no spouse present, family	7.0%	10.7%	5.6%	9.2%	4.9%
Median income (dollars)	49,730	47,252	54,366	43,649	37,963
Female householder, no husband present, family	22.1%	22.7%	12.6%	42.7%	9.5%
Median income (dollars)	33,788	26,657	39,522	31,969	48,696
Individuals	10,429,379	1,001,472	5,487,048	3,379,132	408,067
Per capita income (dollars)	29,668	17,787	36,578	21,542	35,295
With earnings for full-time, year-round workers:					
Male	2,020,844	227,154	1,164,598	513,168	90,968
Female	1,590,851	113,809	810,172	583,923	65,235
Mean earnings (dollars) for full-time, year-round					
Male	68.251	44,939	79.864	49.621	81.479
Female	49.367	34.634	55.041	43.098	61,196
Median earnings (dollars) full-time, year-round workers:	,				
Male	47,114	31,379	54,736	40,140	60,371
Female	38,958	26,708	43,064	35,302	46,164
HEALTH INSURANCE COVERAGE					
Civilian noninstitutionalized population	10,241,594	982,805	5,403,301	3,298,056	406,512
With private health insurance	66.1%	41.7%	74.4%	59.1%	74.5%
With public coverage	30.7%	29.1%	29.2%	35.6%	16.8%
No health insurance coverage	13.4%	33.0%	9.7%	13.6%	13.5%
POVERTY RATES FOR FAMILIES AND PEOPLE FOR WHOM POVERTY STATUS IS DETERMINED					
All families	11.1%	20.5%	6.5%	18.0%	6.6%
vears	16.6%	26.5%	9.8%	24.4%	6.9%
With related children of the householder under 5 years only	15.7%	23.7%	9.8%	25.5%	5.5%
Married-couple family	5.4%	15.0%	3.8%	6.9%	4.7%
With related children of the householder under 18 vears	7.2%	19.3%	4.7%	7.6%	5.0%

ීස් ≌t1:18-cv-02869-J	PB Docume Total population	nt 66-4 Filed Hispanic or Latino (of any race) (200-299)	OGAODA 9 Pa White alone, not Hispanic or Latino	tige 304 of 306 Black or African American alone or in combination with one or more other races, not Hispanic or Latino	Asian alone, not Hispanic or Latino	
	Estimate	Estimate	Estimate	Estimate	Estimate	
With related children of the householder under 5	6.2%	19.6%	3.5%	10.9%	4.2%	
Female householder, no husband present, family	27.9%	39.8%	21.3%	30.2%	15.7%	
With related children of the householder under 18 vears	36.0%	46.7%	29.4%	37.6%	20.1%	
With related children of the householder under 5	38.6%	36.4%	40.9%	37.4%	N	
years only All people	14.00/	22.40/	0.99/	24 50/	0.10/	
Linder 18 years	14.9%	23.4%	9.8%	21.5%	9.1%	
Related children of the householder under 18 years	21.0%	32.5%	10.7%	30.3%	8.8%	
	20.7%	32.4%	10.3%	30.1%	0.0%	
Related children of the householder under 5 years	23.4%	35.7%	11.5%	34.8%	8.5%	
Related children of the householder 5 to 17 years	19.7%	31.1%	9.8%	28.4%	8.9%	
18 years and over	13.0%	18.1%	9.6%	18.2%	9.2%	
18 to 64 years	13.6%	18.3%	10.1%	18.4%	9.3%	
65 years and over	10.1%	14.6%	7.7%	16.8%	8.6%	
People in families	12.6%	22.9%	6.8%	19.6%	6.4%	
Unrelated individuals 15 years and over	26.0%	27.3%	23.2%	29.7%	30.8%	
HOUSING TENURE		C.				
Occupied housing units	3,745,074	253,059	2,153,532	1,165,026	124,436	
Owner-occupied housing units	62.9%	46.1%	73.6%	46.7%	66.1%	
Renter-occupied nousing units	37.1%	53.9%	26.4%	53.3%	33.9%	
Average household size of conter-occupied unit	2.77	3.78	2.63	2.86	3.36	
	2.62	3.53	2.39	2.64	2.72	
	0 745 071	050.050	0.450.500	4.405.000	101.100	
1 unit, detached or attached	3,745,074	253,059	2,153,532	1,165,026	124,436	
	Z.3%	61.4%	78.3%	63.8%	71.4%	
5 or more units	5.0%	7.0%	2.9%	8.4%	3.6%	
Mobile home hoat RV van etc	14.7%	19.3%	9.5%	ZZ.3%	24.0%	
	8.0%	12.3%	9.3%	5.5%	1.0%	
Occupied housing units	2 745 074	252.050	2 152 522	1 165 026	124 426	
Built 2014 or later	2.8%	1 0%	2,155,552	2 3%	7.6%	
Built 2010 to 2013	2.0%	2.2%	2.0%	2.370	5.0%	
Built 2000 to 2009	2.9%	17.5%	2.7 %	23.3%	30.6%	
Built 1980 to 1999	38.0%	44.7%	39.5%	33.8%	38.3%	
Built 1960 to 1979	22.1%	24.4%	20.9%	24.8%	13.8%	
Built 1940 to 1959	8.4%	7.0%	8.2%	9.7%	2.7%	
Built 1939 or earlier	3.8%	2.3%	4.5%	2.9%	1.1%	
VEHICLES AVAILABLE						
Occupied housing units	3.745.074	253.059	2.153.532	1.165.026	124.436	
None	6.4%	7.5%	3.6%	11.6%	4.2%	
1 or more	93.6%	92.5%	96.4%	88.4%	95.8%	
HOUSE HEATING FUEL						
Occupied housing units	3,745,074	253,059	2,153,532	1,165,026	124,436	
Gas	43.8%	40.5%	43.2%	44.0%	58.9%	
Electricity	54.7%	58.3%	55.0%	55.1%	40.5%	
All other fuels	1.0%	0.7%	1.4%	0.5%	0.2%	
No fuel used	0.4%	0.6%	0.4%	0.4%	0.4%	
SELECTED CHARACTERISTICS						
Occupied housing units	3,745,074	253,059	2,153,532	1,165,026	124,436	
No telephone service available	1.5%	1.8%	1.4%	1.6%	1.3%	
1.01 or more occupants per room	2.2%	10.3%	1.0%	2.5%	3.7%	

Example 1:18-cv-02869-JPB Document 66-4 Filed 0 9/01019 Page 305 of 306							
	Total population	Hispanic or Latino (of any race) (200-299)	White alone, not Hispanic or Latino	Black or African American alone or in combination with one or more other races, not Hispanic or Latino	Asian alone, not Hispanic or Latino		
	Estimate	Estimate	Estimate	Estimate	Estimate		
SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN THE PAST 12 MONTHS							
Housing units with a mortgage (excluding units where SMOC cannot be computed)	1,518,788	79,549	978,989	385,381	55,373		
Less than 30 percent	74.8%	69.3%	77.8%	68.7%	71.6%		
30 percent or more	25.2%	30.7%	22.2%	31.3%	28.4%		
OWNER CHARACTERISTICS							
Owner-occupied housing units	2,354,922	116,545	1,585,060	543,597	82,247		
Median value (dollars)	173,700	151,700	190,300	141,200	281,600		
Median selected monthly owner costs with a mortgage (dollars)	1,341	1,219	1,374	1,238	1,856		
Median selected monthly owner costs without a mortgage (dollars)	395	388	396	380	475		
GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN THE PAST 12 MONTHS							
Occupied units paying rent (excluding units where GRAPI cannot be computed)	1,285,297	130,127	512,871	582,692	39,620		
Less than 30 percent	52.0%	48.9%	57.5%	47.4%	62.7%		
30 percent or more	48.0%	51.1%	42.5%	52.6%	37.3%		
GROSS RENT			<u>/</u>				
Occupied units paying rent	1,321,593	133,446	524,424	601,300	41,786		
Median gross rent (dollars)	958	1.009	976	917	1,238		
COMPUTERS AND INTERNET USE		A					
Total households	3,745,074	253,059	2,153,532	1,165,026	124,436		
With a computer	90.9%	92.7%	91.4%	88.7%	97.7%		
With a broadband Internet subscription	82.7%	80.8%	84.7%	78.1%	93.5%		

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Data for the households, families, occupied housing units, owner-occupied housing units, and renter-occupied housing units lines refer to the specified race, Hispanic or Latino, American Indian or Alaska Native, or ancestry of the householder shown in the table. Data in the "Total population" column are shown regardless of the race, Hispanic or Latino, American Indian or Alaska Native, or ancestry of the person.

The Census Bureau introduced a new set of disability questions in the 2008 ACS questionnaire. Accordingly, comparisons of disability data from 2008 or later with data from prior years are not recommended. For more information on these questions and their evaluation in the 2006 ACS Content Test, see the Evaluation Report Covering Disability.

Employment and unemployment estimates may vary from the official labor force data released by the Bureau of Labor Statistics because of differences in survey design and data collection. For guidance on differences in employment and unemployment estimates from different sources go to Labor Force Guidance.

Industry codes are 4-digit codes and are based on the North American Industry Classification System 2012. The Industry categories adhere to the guidelines issued in Clarification Memorandum No. 2, "NAICS Alternate Aggregation Structure for Use By U.S. Statistical Agencies," issued by the Office of Management and Budget.

Occupation codes are 4-digit codes and are based on Standard Occupational Classification 2010.

Telephone service data are not available for certain geographic areas due to problems with data collection of this question that occurred in 2015 and 2016. Both ACS 1-year and ACS 5-year files were affected. It may take several years in the ACS 5-year files until the estimates are available for the geographic areas affected.

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Logical coverage edits applying a rules-based assignment of Medicaid, Medicare and military health coverage were added as of 2009 -- please see https://www.census.gov/library/working-papers/2010/demo/coverage_edits_final.html for more details. The 2008 data table in American FactFinder does not incorporate these edits. Therefore, the estimates that appear in these tables are not comparable to the estimates in the 2009 and later tables. Select geographies of 2008 data comparable to the 2009 and later tables are available at https://www.census.gov/data/tables/time-series/acs/1-year-re-run-health-insurance.html. The health insurance coverage category names were modified in 2010. See https://www.census.gov/topics/health/health-insurance/about/glossary.html#par_textimage_18 for a list of the insurance type definitions.

Data about computer and Internet use were collected by asking respondents to select "Yes" or "No" to each type of computer and each type of Internet subscription. Therefore, respondents were able to select more than one type of computer and more than one type of Internet subscription.

The category "with a broadband Internet subscription" refers to those who said "Yes" to at least one of the following types of Internet subscriptions: Broadband such as cable, fiber optic, or DSL; a cellular data plan; satellite; or a fixed wireless subscription.

An Internet "subscription" refers to a type of service that someone pays for to access the Internet such as a cellular data plan, broadband such as cable, fiber optic or DSL, or other type of service. This will normally refer to a service that someone is billed for directly for Internet alone or sometimes as part of a bundle.

"With a computer" includes those who said "Yes" to at least one of the following types of computers: Desktop or laptop; smartphone; tablet or other portable wireless computer; or some other type of computer.

Caution should be used when comparing data for computer and Internet use before and after 2016. Changes in 2016 to the questions involving the wording as well as the response options resulted in changed response patterns in the data. Most noticeable are increases in overall computer ownership or use, the total of Internet subscriptions, satellite subscriptions, and cellular data plans for a smartphone or other mobile device. For more detailed information about these changes, see the 2016 American Community Survey Content Test Report for Computer and Internet Use located at https://www.census.gov/programs-surveys/acs/methodology/content-test.htm or the user note regarding changes in the 2016 questions located at https://www.census.gov/programs-surveys/acs/technical-documentation/user-notes.html

While the 2017 American Community Survey (ACS) data generally reflect the july 2015 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas, in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineations due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.

2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.

3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.

4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.

5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.

6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.

7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.

8. An '(X)' means that the estimate is not applicable or not available.

EXHIBIT A

EXPERT REPORT OF GINA H. WRIGHT

My name is Gina H. Wright. I have been asked to review the Declaration of William S. Cooper filed in this case and give my expert opinion on the redistricting plans he created. Specifically, I was asked to comment on: 1) whether Bill Cooper's plans increase the total number of majority African-American congressional districts for Georgia's congressional redistricting plan; 2) whether Bill Cooper's plans follow traditional redistricting principles; and 3) whether the African-American population in and around Congressional District 12 is sufficiently numerous and geographically compact to constitute a majority of the population in the district without reducing the African-American population in Congressional District 2 below 50%.

I am the Executive Director of the Legislative and Congressional Reapportionment Office (LCRO), a joint office of the Georgia General Assembly. The LCRO is responsible for providing redistricting services to legislators using data obtained from the United States Census Bureau. The LCRO assists members of the General Assembly in drawing the districts of the State Senate and State House of Representatives, as well as the fourteen (14) United States Congressional districts. Through sponsorship from a legislator, the LCRO also assists local County Commission, Boards of Education, and City Councils in adjusting their districts. Finally, the LCRO also provides an array of maps and data reports to both legislators and the public at large.

As Executive Director, I oversee and direct a staff of four (4) in providing redistricting and other mapping services to all members of the Georgia General Assembly. These services may include drawing maps for statewide legislative districts, local redistricting plans, city creation boundaries, annexations and de-annexations, as well as precinct boundary changes. All local redistricting bills through the House Committee on Intragovernmental Coordination require my signature following a technical review of the bill. I am the official state liaison for Georgia for the 2020 Census Redistricting Data Program. I oversee the creation of our statewide voting precinct mapping layer through my work with all county election officials throughout the state. I assist the Office of the Attorney General in candidate qualification challenges related to issues

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regarding a candidate's residency. I regularly assist federal courts as an expert or technical advisor in redistricting matters. I participate in the Redistricting and Elections Standing Committee of the National Conference of State Legislatures and contribute to their databases and publications. Finally, I participate as a presenter in statewide forums such as the Voter Registrars Association of Georgia, the Georgia Elections Officials Association, and the Georgia Legislative CLE class.

I began work with the LCRO in December of 2000 as a Redistricting Services Specialist. I became Executive Director of the LCRO in June 2012. I am a 2000 summa cum laude graduate from Georgia State University. I have a Bachelor of Arts degree in Political Science and a minor in Spanish.

I have been appointed as an expert or technical advisor for redistricting by federal courts in the following cases:

• Ga. State Conf. of the NAACP v. Fayette County Bd. of Comm'rs, 996 F. Supp. 2d 1353, 1359 (N.D. Ga. 2014) (appointed as the Court's "independent technical advisor."); see also Ga. State Conf. of the NAACP v. Fayette County Bd. of Comm'rs, 118 F. Supp. 3d 1338, 1340 (N.D. Ga. 2015) ("Court-appointed expert or technical advisor.")

• Crumly v. Cobb County Bd. of Elections & Voter Registration, 892 F. Supp. 2d 1333, 1344 (N.D. Ga 2012) (appointed as the "Court's technical advisor and consultant.")

• *Martin v. Augusta-Richmond County*, 2012 U.S. Dist. LEXIS 85113, *2-3 (S.D. Ga 2012) (appointed by Court as "advisor and consultant.")

• *Walker v. Cunningham*, 2012 U.S. Dist. LEXIS 178337, *5 (S.D. Ga. 2012) (appointed by Court "as its independent technical advisor.") (3 judge panel).

• Bird v. Sumter County Board of Educ., CA No. 1:12cv76-WLS (M.D. Ga. 2013), ECF 70 p. 5 (appointing Gina Wright as the Court's "independent technical advisor.")

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• Adamson v. Clayton County Elections and Reg. Bd., CA No. 1:12cv1665-CAP (N.D. Ga. 2012), ECF 23 p. 2 (appointing Gina Wright as the Court's "independent technical advisor.")

In the past four years I have testified, either at trial or by deposition, in

- *NAACP v. Kemp*, CA No. 1:17cv1427 (N.D. Ga.) (3 judge court) (consolidated with *Thompson v. Kemp*).
- Ga. State Conf. of the NAACP v. Fayette County Bd. Of Comm'rs.

I am not being compensated separately for my work in this matter.

In preparing my analysis, I considered the following facts and data: The Declaration of William S. Cooper, the block equivalency files of his Hustrative Plans, the 2010 PL-94-171 Census Data and Geography files for the state of Georgia, current and past United States Congressional district maps for the state of Georgia maintained by my office, and my personal knowledge of the facts regarding redistricting in Georgia.

Based on my analysis, as discussed below, I have concluded that it is not possible to draw an additional majority-minority district as proposed by Mr. Cooper's Illustrative Plans without (1) making race the predominant factor in creating the district, (2) reducing the African-American population in Congressional District 2 below 50%, (3)subjugating all traditional redistricting principles used in Georgia to race, and (4) causing massive disruption in the representation of individuals in the affected districts.

History of Georgia Congressional Maps and Representation

Following the decennial Census in the year 2000, the state of Georgia gained two (2) additional congressional districts due to significant population growth in the state. During a special legislative session in 2001, the Georgia General Assembly, with the Democratic Party holding majorities in both state House and Senate, adopted a map for these 13 U.S. congressional

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districts. Democratic Governor Roy Barnes signed the legislation. The plan was granted preclearance by the U.S. district court of the District of Columbia (*Georgia v. Ashcroft*, 195 F.Supp.2d 25 (D. D.C. 2002), *aff'd sub nom. King v. Georgia*, 537 U.S. 1100 (No. 02-125) (2003). This map was used for elections in Georgia in 2002 and 2004.

After preclearance, the map was referred to in the Legislative and Congressional Reapportionment Office by the plan name "Cong02". This plan contained two majority AP (all persons)¹ black districts, District 4 (54.69% AP black, 50.02% AP black VAP) and District 5 (56.92% AP black, 52.04% AP BVAP). Both districts were in the metro Atlanta area. The third highest percentage of AP black population and AP black VAP was in District 2 in southwest Georgia (45.22% AP black and 41.45% AP black VAP). (*See* Exhibits 1, 1A, 1B)

In the General Election of 2004, the voters of Georgia elected a Republican majority in both the state House and Senate. Governor Sonny Perdue, a Republican elected in 2002, was the Governor at that time. The Georgia General Assembly under new leadership, decided to redraw the Congressional district map. This map was adopted (HB 499) in 2005, was signed by Governor Perdue (Act 146), and was precleared by the U.S. Department of Justice. Referred to by plan name "Cong05" after its preclearance, this was the map for elections in 2006, 2008, and 2010. (*See* Exhibits 2, 2A, 2B)

Like the preceding map from 2002, this new version also contained the same two majority AP black and AP black VAP districts 4 and 5 in metro Atlanta. District 4 had a 54.19% AP black total and a 50.31% AP BVAP. District 5 had a 56.85% AP black total and a 52.05% AP BVAP. As before, the third highest percentage of AP black population was in District 2 in southwest Georgia (48.32% AP black and 44.83% AP BVAP). This map would be the benchmark map when new Census data arrived in 2011.

From 2002 through 2011, four of the thirteen Congressional districts in Georgia elected African-American representatives under the maps mentioned above. These districts are 2, 4, 5, and 13. District 5 elected Congressman John Lewis in 1986 and he continues to represent the seat today. District 4 has elected three African Americans since 1996- Congresswoman Cynthia

¹ The AP (all persons) category includes persons self-identifying themselves as belonging to more than one race. For example, a person that self-identified as both white and black would be included both in the number of persons "AP Black" *and* those "AP White."

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McKinney, Congresswoman Denise Majette, and Congressman Hank Johnson, who presently represents this district. District 2 elected Congressman Sanford Bishop in 1992 and he continues to represent this district. District 13, added after the 2000 Census, elected Congressman David Scott in 2002. This district elected an African-American representative although the district was not majority AP black in population at that time. Congressman Scott has been reelected to serve this district in every election since 2002, including the most recent in 2018.

2010 Census Information

The 2010 Census showed that as of April 1, 2010, Georgia had 9,687,653 people, which resulted in Georgia gaining a fourteenth congressional district. Dividing this population into 14 districts yields an ideal district size of 691,975. The population of the state as a whole is 31.53% AP black population (those identifying as single race black population make up 30.46%). Of Georgia's 159 counties, 20 counties had an overall population of majority AP black population (over 50%). All of these counties except two (Clayton and DeKalb) are located outside of the metro Atlanta area.

On the benchmark plan "Cong05", 10 of the 18 majority AP black counties, outside of metro Atlanta, were located within the Congressional District 2. Additionally, six of the next seven counties with the highest concentration of AP black population are also located in District 2. These 16 counties are compact, contiguous to one another, and within the same region of the state. They also make up most of current State Senate districts 12 and 15. This is shown on the attached map Exhibit 3.

On the current map "Congress12", 17 of the 28 counties with the highest percentage AP black population are completely or primarily within Congressional District 2. (72.42% of the population of Bibb County is in District 2 and 76.62% of the population of Muscogee County is in District 2). This is shown on the attached map Exhibit 4.

2010 Benchmark Congressional Map

The Legislative and Congressional Reapportionment Office received the 2010 Census data for Georgia in early 2011. This data was applied to the benchmark 2005 Congressional district map. (*See* Exhibit 2C) The statewide existing plan showed two districts that had higher than 50% AP black total population and AP black VAP. These were Districts 4 (57.5% AP black and 55.69% AP black VAP) and 13 (58.55% AP black and 55.7% AP black VAP) in metro Atlanta. In addition, District 5 had over 50% AP black total population but less than 50% VAP. This is an increase from the 2005 map, which had only two districts with AP black population and AP black VAP over 50%. The fourth highest percentage of AP black population and AP black VAP was in District 2 in southwest Georgia. (49.32% AP black and 46.84% AP black VAP)

It is important to note however, that in reviewing the 2010 data as applied to the benchmark map (Cong05) and setting a new ideal district size, the districts needed to be adjusted to balance the population among districts. For instance, districts 2, 4, and 5 were all under populated while all of the remaining districts were overpopulated. Additionally, a district that may be close to the ideal size will have to adjust to account for surrounding districts that are significantly higher or lower in population size. The addition of a fourteenth district also affected all districts on the plan, as they had to shift geographically to accommodate a new district. This means that although a district may have had close to an ideal size, it may not be able to maintain all parts of the existing district as others need to gain or lose population.

Current Congressional District Map

In a special legislative session in August of 2011, the Georgia General Assembly passed a new redistricting map for its Congressional districts (HB 20EX). The United States Department of Justice precleared this map in December of 2011. This map was effective for elections in 2012, 2014, 2016, and 2018.

As noted above, the current map contains 14 districts, due to an increase of one district after the reapportionment of the 435 U.S. House districts following the 2010 Census. Population

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growth in Georgia was highest in the metro Atlanta area and in north Georgia so it was logical that the new district would be in this area. The four largest counties in Georgia- Fulton, Gwinnett, DeKalb, and Cobb counties- are located in metro Atlanta and are each larger than, or almost the size, of a single Congressional district.

The map in use today is labeled as plan name Congress12. (*See* Exhibit 5) It contains four districts that have over 50% AP Black population, Districts 4, 5, and 13 in metro Atlanta and District 2 in southwest Georgia. Districts 4, 5, and 13 have over 50% AP Black voting age population also. District 2 has an AP Black VAP of 49.46%, but has consistently been above 50% African-American in voter registration. Despite the fact that three out of these four districts were extremely underpopulated when reviewing the 2010 data on the benchmark map, the new map increased the number of majority total AP black population districts to four (Districts 2, 4, 5, and 13). Three of these four districts (4, 5, and 13) also have a majority AP Black VAP. All four districts were and are majority black in voter registration.

The LCRO obtains voter information from the Office of the Secretary of State and builds a statewide voting precinct layer. Numbers of registered voters match to these precincts and are completely accurate when the precinct is whole. The computer program will estimate the numbers of registered voters proportionately when a precinct is split between two districts.

Applying the most recent voter registration data from 2016^2 to the current plan (Congress12), there are four districts that have over 50% black voter registration as of November 2016 as there were when the map was adopted in 2011.

	%Black Reg.	Voters 2016	%Black	Reg. Voters 2010	%18+_AP_Blk	%AP_Blk
District	4	58.76%		56.74%	56.41%	59.04%
District	13	58.00%		54.29%	53.93%	56.96%
District	5	54.97%		56.62%	57.61%	60.45%
District	2	51.22%		50.11%	49.46%	52.28%

 $^{^{2}}$ My office is currently building the 2018 precinct boundary layer. Until that layer is complete, the 2018 precinct registration numbers will not line up perfectly with precinct boundary lines.

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The current Georgia Congressional delegation has five (5) incumbent African-American representatives elected from the districts on the Congress12 map. Most recently, Representative Lucy McBath was elected on November 6, 2018 to represent District 6 in north metro Atlanta. Representative McBath is African American although the district is not a majority AP black district. District 6 actually has one of the lowest percentages of AP black population out of all 14 districts.

Alternative Maps Considered by the General Assembly

During the special session of the Georgia General Assembly in 2011, the House Minority Leader Rep. Stacey Abrams presented an alternate Congressional map. This option (HB 60EX) included 3 districts that had greater than 50% AP Black population and greater than 50% AP black VAP in districts 4, 5, and 13. There was an additional district on the proposal that had an AP black total over 50% and an AP Black VAP at 49.37%. This was District 2 in southwest Georgia. The map was introduced in the House and assigned to committee but no further action was taken.

Senator Vincent Fort also from the Democratic Party proposed a bill to change the boundaries of the Congressional districts (SB 9EX). This version made changes in several counties but still maintained the same number of majority AP black districts. The same three districts were drawn with over 50% AP black and over 50% AP Black VAP- districts 4, 5, and 13. This proposal did not create a fourth district that had over 50% AP black. The next highest percentage of AP black population was drawn in District 2 which was 49.78% AP black and 47.14% AP Black VAP. This bill was introduced in the Senate and assigned to committee but no further action was taken.

Bibb County was not included in Congressional District 12 on either of these two proposed Democratic alternative maps.

Review of the Plaintiffs' Analysis

I reviewed the two Illustrative Plans submitted with the Expert Report of William Cooper. To review his plans, I obtained electronic versions of his maps that can be imported into my redistricting software, Maptitude for Redistricting. I then analyzed the plans using Census data and other data available to me on my state databases, such as precinct boundaries and political data.

As redistricting maps are based on official Census data, I do not utilize the population estimates from the American Community Survey (ACS) or its reports of citizen data. The ACS is a random sampling and does not provide a complete, accurate count. It has also not always been an accurate predictor of the future Census count for some areas, including the City of Atlanta in 2010.

In reviewing the report submitted by Mr. Cooper, there was much focus on his 71 county region. When creating district maps, I do not limit analysis of a statewide plan to a particular region. I also do not consider metropolitan statistical areas (MSAs) when determining where a district may go. To consider only a select grouping of counties or to invent arbitrary limits on where districts exist, leaves out the full impact of how all of the districts fit together in a statewide plan.

Mr. Cooper selects his grouping of 71 counties and gives statistics about that area, but does not consider that the changed districts in his Illustrative maps overlap many more counties than just those 71. In fact, the six (6) districts that he changes on both of the Illustrative Plans span 121 of the 159 counties in Georgia. Even a county where no specific district change occurred can see an effect since the total body of the electorate in the district is different and the areas added or taken away from a congressional district may influence whom the district elects.

Most of the standard map packets produced by my office contain detailed maps of the four (4) primary population centers outside of the metro Atlanta area- Macon-Bibb County, Columbus-Muscogee County, Augusta-Richmond County, and Chatham County (Savannah). These four counties are the largest counties outside of the metro Atlanta area, ranking 5th (Chatham), 9th (Richmond), 10th (Muscogee), and 13th (Bibb) in terms of highest county

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population in the state. Mr. Cooper only considers three (3) of these and fails to acknowledge Muscogee County as part of his designated 71 county region.

Muscogee County is the third largest county in the state of Georgia that is outside of the metro Atlanta area. It is larger in total population than Bibb County and has a higher percentage of AP Black population (47.34%) than Chatham County (41.27%). In paragraph 42 of his report, Mr. Cooper mentions that each of the population centers he names has a majority-black state Senate district in them. Muscogee County also has a majority-black population district-SD 15 at 54.82% AP BVAP. It also borders another majority AP black Senate district just to its south that encompasses many of the highest percentage AP black counties. This is SD 12, which has a BVAP of 59.13%. (See Exhibit 6) Cooper ignores these demographics with no explanation. Of the state Senate districts Cooper identifies (SD 26 in Macon, SD 22 in Augusta, and SD 2 in Savannah), none border any of the other majority AP black Senate districts in the state.

Not only does Cooper's selected 71-county region leave out the population center of Muscogee County, it also strategically leaves out the counties in southwest Georgia that have high percentages of AP black population. Cooper does not explain why he fails to include these counties, which are also impacted by any change that would be made to the districts across South Georgia. The counties he does not include are the exact 28 counties that make up Congressional District 2, minus Bibb County, which Cooper removes from Congressional District 2. (*See* Exhibit 7)

As Mr. Cooper states in his report, the district to which Bibb County is assigned makes it geographically difficult to create a majority black district near District 12. (Cooper ¶ 53). If Macon-Bibb County remains in Congressional District 2, Mr. Cooper would be unable to create the District 12 he proposes.

Bibb County bordered District 2 on the benchmark "Cong05" map and has sufficient population to bring District 2 into balance. Its inclusion in District 2 makes the district over 50% AP black, without dividing any smaller counties. The only two (2) counties in the current District 2 that are split are Bibb County and Muscogee County. There was no need to seek out additional population as District 2 already met the Gingles 1 precondition of "sufficiently

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numerous and geographically compact". Slight adjustments to District 2 plus its addition of 72.42 % of Bibb County was sufficient. Further, Bibb County has never been in the same Congressional district as Richmond and Chatham counties at any time over the last 40 years.

Mr. Cooper fails to explain what happens to the demographics of District 2 once he creates the new District 12 he proposes on his Illustrative Plans. In short, to increase the AP black population and BVAP in District 12, you must reduce it in District 2. This results in an exchange of one majority AP black district for another. The tables of statistics in his report do not include the impact on either District 2 or District 3, both of which are significantly changed. Below are the changes to the overall black population in District 2 on the benchmark map and the Illustrative Plans.

Congress12 Current Plan	%AP Black	%18+_AP Black	%Black Reg. Voters 2016
District 2	52.28%	49.46%	51.22%
Illustrative Plan 1	%AP Black	%18+ AP Black	%Black Reg. Voters 2016
District 2	49.72%	46.92%	48.31%
Illustrative Plan 2	%AP Black	%18+_AP Black	%Black Reg. Voters 2016
District 2	49.81%	47.03%	48.44%

Mr. Cooper states that he calculated registered voter data using a geocoded voter file. Having studied and utilized geocoding for over 15 years, there are many potential problems in relying upon this information. Successful geocoding depends greatly on the quality of the street file you use and the accuracy and uniformity of the address database you geocode. I assume that Mr. Cooper geocoded the voter file against the TIGER street file that is a part of the 2010 Census data information. If so, this file is almost ten years old and it would not include the most recent street names and updated geography.

There is also a great deal of variance in the naming conventions of streets. A given street may have multiple recognized names, but only one that shows up in the street file. This means

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that voters using an alternate street name for their address would not be located. There is a possibility that street ranges assigned to a street file may not be accurate. This means that the numbers of addresses in the file that are assigned to one side of the street or the other could be inaccurate, may not include all actual address numbers, or may not even be present. It is highly complex and time consuming to attempt to standardize street names in order to achieve a more accurate geocode. To geocode an entire statewide file would produce many errors and voters that would not be assigned or located. Even a single Congressional district would be a large undertaking that most likely would result in a broad estimate.

Cooper states that he compares a December 2017 statewide voter registration file to November 2018 voter registration summary statistics. He correctly states that that there have been voting precinct changes since 2016. These changes vary by county and over that time period. By using a list of voters that is one year older (Dec. 2017) than the registration totals (Nov. 2018) that he attempts to allocate by district, Cooper necessarily makes broad assumptions about the accuracy of the data over time and with the knowledge that the data may not accurately match the precincts listed. Mr. Cooper does not provide information on the number of records that did not locate or the percentage of voters he found to base his data. I would not expect this type of analysis to give a true and accurate picture of the actual numbers and demographics of the registered voter data by district.

The most recent complete precinct layer my office has corresponds to the voting precincts and data used for the November 2016 General Election. The data is provided as of that specific date and is matched to the geography for the voting precincts used in that election which is verified by all county elections officials. It is accurate for every whole precinct in the state and is proportionately estimated when a precinct is split between districts. From this 2016 precinct layer which includes voter registration numbers by race, I find differences in the numbers put forth by Mr. Cooper. On Congressional District 12 in Illustrative Plan 1, he shows as 55.4% black registered voters as of December 2017 (Cooper Figure 15). Illustrative Plan 2 has a 55.27% black registered voter number. My data shows this same figure to be 51.26% (2016 data) on his Illustrative Plan 1. I would not expect there to be a change of over 4% in just one year and, based on my experience, it appears that Mr. Cooper's method of geocoding overstates the total number of black registered voters.

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Mr. Cooper states that his Illustrative Plans comply with traditional redistricting principals, but his maps increase the number of split counties, are less compact, and divide counties, precincts, and cities in unnecessary and unnatural ways. It is not necessary to consider incumbency, as members of Congress do not have to reside in the district they represent.

Illustrative Plan 1

As drawn, Illustrative Plan 1 would make changes to six current Congressional districts. This includes districts 1, 2, 3, 8, 10, and 12. There are 40 counties that would have to make a change to their voter assignments and ballot combinations. Illustrative Plan 1 would affect the district assignment and representation of approximately 1,165,325 people across the state. This is just under the size of two Congressional districts.

The plan shifts the fourth majority AP black district from District 2 to be District 12 by stretching across the state to piece together populations in Macon-Bibb, Augusta-Richmond, and Chatham counties to create its majority. As explained below, it focuses on the use of race alone to achieve the goal of the plan, which is for District 12 to have an AP BVAP just over 50%.

TRAFFIC County Splits

When drawing a Congressional map for the state of Georgia, you build districts by combining counties in order to achieve the ideal district size. Since only four (4) counties are as large as or larger than a Congressional district, it is the combination of counties together that give the ability to create a district of the correct size. It does become necessary at times to divide counties in order to reach the desired population size, but such divisions should be as few as possible and should be done in larger counties which are typically divided on other redistricting plans such as the State Senate or State House.

Mr. Cooper states that his map, Illustrative Plan 1, divides 17 counties, which is more than the existing plan that divides 16 counties. The choice of which counties to split and how to split them is also important. Illustrative Plan 1 splits Butts County (total population 23,655) by

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removing all but 3,405 people from District 10 and assigning them to District 3. Butts County was not split on the last two Congressional District maps and has only been split once on a Congressional district map in the last 40 years. Cooper mentions that neighboring Henry County is now only split into two districts rather than three, but with a population of 203,922, all three portions of Henry County that are currently in District 3 (60,521 people), District 10 (45,768 people), and District 13 (97,633 people) are significantly larger than the size of Butts County in its entirety. Dividing Butts County also splits the city of Jackson (total population 5,045) into two (2) districts. (*See* Exhibit 8)

Other county splits such as Macon-Bibb, Chatham, and Lowndes appear to have fingers reaching through the county to take out specific populations. (*See* Exhibit 9). The total population (212,113) assigned to District 12 from Macon-Bibb and Chatham counties combined is 67.79% AP Black. It is 63.15% AP Black VAP. To break this down further, the portion of Macon-Bibb County assigned to District 12 is 75.52% AP black population and 71.27% AP black VAP. The portion of Chatham County (Savannah) assigned to District 12 is 62.32% AP black and 57.73% AP BVAP. It is clear that Mr. Cooper selected the people to be included in District 12 based on their race.

Lowndes County (population 109,233), is split on the current plan (Congress12) but follows the county line on its eastern side. On Illustrative Plan 1, Lowndes has a thin finger across its middle in District 2 and the top and bottom parts of the county in District 8. The portion of the county split into District 2 is 42,675 people and is 64.19% AP black population and 59.58% AP black VAP. (See Exhibit 9A)

Mr. Cooper also chose to move Lee County from District 2 into District 8. Lee County has been in District 2 as far back as the 1970s. Only for two (2) election cycles was the southern portion of Lee County in District 8, before the *Miller v Johnson* decision invalidated that Congressional map. 515 U.S. 900 (1995). In 2010, Lee County had a 78.03% AP white population. Cooper's Plan moves this county out of District 2 and into District 8 in an attempt to lessen the dilution of black voting strength in District 2 that results from his transfer of Bibb County from District 2 to District 12.

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For the same reason, Illustrative Plan 1 moves Crawford County out of District 2 to District 8 although most of it borders counties in District 2. Crawford County also had a 75.76% AP white population as of the 2010 Census.

It is obvious that lines were drawn moving counties, or parts of counties, in and out of districts based solely on the race of the population being moved and without regard to making districts more compact or to keeping communities of interest together.

Voting Precincts

In Georgia, voting precincts are a significant building block used in creating districts. Voting precincts are small geographic areas with clearly defined boundaries that are determined locally by each county election supervisor. Keeping precincts whole allows greater ease of voter assignments to ballot combinations as well as understanding amongst voters as to which district they reside in. The Official Code of Georgia describes the geographic features that can be used as precinct boundary lines. Precincts combine voters who live in the same communities and neighborhoods. Election officials assign polling places for precincts often at local schools and churches that are central to the area where these voters live. Voting precincts are also a continuous feature to match between redistricting plans at different levels to assist county elections officials with the assignments of voters to various different districts (e.g. Congressional maps, Senate maps, House maps, Commissions and School Boards). Voting precincts do, at times, have to be divided on Congressional maps to achieve a deviation of zero, but reducing splits to as few as possible is a priority. By keeping precincts and counties whole, communities remain together.

Mr. Cooper states in his report that Illustrative Plan 1 divides 38 precincts, which is an increase from the number that originally existed when the plan "Congress12" was adopted. At that time, only 34 populated precincts were split between districts. From my analysis, Illustrative Plan 1 divides 39 populated precincts in the 2016 precinct layer. As the 2016 precinct layer is the most current precinct layer and is the precinct guideline to follow when drawing a map presently, this plan increases the number of split voting precincts by five (5). To draw a Congressional map with zero deviation, it is often necessary to divide some voting

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precincts. However, Illustrative Plan 1 not only splits more voting precincts, it divides local residential neighborhoods and uses irregular geographical features to do so.

In Muscogee County, several residential neighborhoods are split using a street or a water feature that runs through a residential neighborhood. Splitting a precinct on a prominent street feature is not uncommon, but to choose a residential, neighborhood street to divide congressional districts, thus dividing neighbors into different congressional districts, causes voter confusion and frustration. Water features make reasonable district boundary lines also, but not when that feature flows directly through an area of homes in a residential neighborhood. (*See* Exhibit 10)

In Effingham County, the small town of Guyton, population 1,684 is cut in half. The 2010 Census lists 618 people in Guyton as AP black (36.7%). Illustrative Plan 1 puts 467 of those 618 (75.57%) into District 12. The portion of Guyton he carves into District 12 is 72.18% AP black and has an AP BVAP of 73.49%. To split a town so small is problematic enough, but here Cooper not only splits this small town, but does so strictly along racial lines. (*See* Exhibit 11)

In Lowndes County, there are only nine (9) voting precincts. Mr. Cooper splits four of these nine precincts, opting to cut across the city of Valdosta rather than taking compact precincts and dividing fewer in the process. The district lines here look like a zigzag jumping up and down features from a creek, to a city limit line, to streets, to a railroad line, and back to a creek. The portion of Lowndes County placed in District 2 was an attempt to mitigate the dilutive effect on black population totals of District 2 after moving Bibb County from District 2 to District 12. The population in Lowndes County that Mr. Cooper puts into District 2 is 64.19% AP black and 59.58% AP BVAP. The remainder of the county that is in District 8 is 19.37% AP black and 18.36% AP BVAP. It is clear here that Mr. Cooper split the county the way he did based solely on race. (*See* Exhibit 9B)

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Compactness

As stated in the report of Mr. Cooper, "District 12 under the two illustrative plans scores slightly less compact..." I recreated the two compactness tests to which Mr. Cooper refers. The scores on both the Reock and Polsby-Popper tests show Illustrative Plan 1 to be less compact than the current Congressional map "Congress12". To read the scores for both type of tests, the closer the score is to one (1), the more compact the district is. (See Exhibits 12, 12A, 13, 13A)

Compactness Score for all districts- Reock

	Congress12 Current Plan	Illustrative Plan 1
Min.	0.33	0.26
Max.	0.55	0.54
Mean	0.45	0.42
Std. Deviation	0.07	0.08
	WED	
Compactness Scor	e for Congressional I	District 12- Reock
	Congress12 Current Plan	Illustrative Plan 1
District 12	0.41	0.35

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Compactness Scores for all districts- Polsby-Popper

	Congress12 Current Plan	Illustrative Plan 1
Min.	0.16	0.14
Max.	0.37	0.37
Mean	0.26	0.24
Std. Deviation	0.06	0.07

Compactness Score for Congressional District 12- Polsby-Popper

District 12

Illustrative Plan I
0.16 CRAC
ON DEN.

From my reports, the mean score for the Reock test on Illustrative Plan 1 is different from what Mr. Cooper reports. I found that the Reock test gave a 0.42 mean instead of 0.44 as Cooper reports. Mr. Cooper's Reock analysis of Congressional District 12 alone shows that the modified District 12 scores lower and less compact (Illustrative Plan 1 = 0.35) than the current map (Congress12= 0.41). The same can be said of District 12 under Polsby-Popper analysis. (Illustrative Plan 1 = 0.16 and Congress 12 = 0.18)

Overall, the scores for compactness on both tests show lower scores than what the current map has. This means the proposed districts on Illustrative Plan 1 are less compact.

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Illustrative Plan 2

Like Illustrative Plan 1, Cooper's Illustrative Plan 2 makes changes to six (6) Congressional districts-1, 2, 3, 8, 10, and 12. Changes to district boundaries in Illustrative Plan 2 differ from Plan 1 in ten (10) counties (Bibb, Butts, Jasper, Jones, Lowndes, Monroe, Muscogee, Peach, Putnam and Taliaferro). Five of these ten counties (Bibb, Butts, Lowndes, Muscogee and Peach) are split in Illustrative Plan 2. Butts County remains split between Districts 3 and 10, but the division is in a different area than it was on Illustrative Plan 1. Bibb County, Lowndes County, and Muscogee County are still split between two districts, but that split is on a different boundary than it was on Illustrative Plan 1. Peach County is now split between two districts where it was not split in Illustrative Plan 1.

Illustrative Plan 2 would require 38 counties to make changes to their voter assignments and ballot combinations. This would affect the district assignment of approximately 1,143,037 County Splits strative r people across the state

Mr. Cooper states that his map, Illustrative Plan 2, divides 18 counties, which is more than the existing plan (16) and his illustrative Plan 1 (17). As mentioned before, counties are the building blocks of Congressional districts across most of Georgia. Although it is necessary to split some counties to achieve an ideal district size, such divisions should be as few as possible. The same can be said for voting precincts.

Illustrative Plan 2, like Plan 1, splits Butts County (total population 23,655) by removing all but 5,889 people from District 10 and assigning them to District 3. (See Exhibit 14). Butts County was not split on the last two Congressional District maps and has only been split once on a Congressional district map in the last 40 years. Cooper mentions that neighboring Henry County is now only split into two districts rather than three, but with a population of 203,922, all three portions of Henry County that are currently in District 3 (60,521 people), District 10 (45,768 people), and District 13 (97,633 people) are significantly larger than the size of Butts

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County in its entirety. Dividing Butts County as it is on this map also splits the tiny city of Jenkinsburg (total population 370) by placing five (5) people into District 3.

The specific population (212,113 people) placed in District 12 from Macon-Bibb and Chatham counties combined is 67.79% AP Black and 63.15% AP Black VAP. To break this down further, the portion of Macon-Bibb County assigned to District 12 is 74.71% AP black population and 70.54% AP black VAP. The boundary lines for District 12 in Bibb County include all of the same area as in Plan 1, but add some additional population. Plan 2 makes one voting precinct that was split in Plan 1 whole, but now splits two additional precincts in the same area. The portion of Chatham County (Savannah) assigned to District 12 is the same on Plan 2 as it was on Plan 1- 62.32% AP black and 57.73% AP BVAP. (*See* Exhibit 15)

Lowndes County (population 109,233), is split on the current plan but follows the county line on its eastern side. On Illustrative Plan 2, a larger portion of Lowndes County is in District 2 than on Plan 1. There is still a large thumb running across the city of Valdosta to take in specific population based on their racial makeup. (*See* Exhibit 16) Plan 2 adds an additional voting precinct and splits others. The portion of the county split into District 2 is 53,624 people and is 55.95% AP black population and 52.8% AP black VAP. The remainder of Lowndes County has a population of 55,609 and is 18.5% AP black and 17.62% AP BVAP.

Peach County (population 27,695) on Illustrative Plan 2 is split into District 2 and District 8. Peach County has been whole in one Congressional district as far back as the 1970s, with the exception of two (2) election cycles (1992 and 1994) when some portions of Peach County were in two districts before the *Miller v Johnson* decision invalidated that Congressional map. On Illustrative Plan 2, Mr. Cooper opts to take 12,665 people from Peach County and place them in District 8. This population is 78.81% AP white and has an AP white VAP percentage of 79.54%. The portion of Peach County that would remain in District 2 (15,030 people) is 71.16% AP black and 71.02% AP Black VAP. Rather than keep the county whole in either district, Mr. Cooper chose to divide it along racial boundaries. (*See* Exhibit 17)

In the same way as Plan 1, Illustrative Plan 2 also moves both Lee County and Crawford County into District 8. Both of these counties have high AP white populations (Lee- 78.03% AP white and Crawford- 75.76% AP white) and were taken out of District 2 to attempt to minimize

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the dilution of black voting strength in District 2 resulting from the transfer of Bibb County from District 2 to District 12.

Like Plan 1, it is obvious that lines were drawn moving counties, or parts of counties, in and out of districts based solely on the race of the population being moved and without regard to making districts more compact or to keeping communities of interest together.

Voting Precincts

Mr. Cooper states in his report that Illustrative Plan 2 divides 39 precincts, which is an increase from the number that originally existed when the plan "Congress12" was adopted, which had only 34 populated precincts split between districts. From my analysis, Illustrative Plan 2 divides 40 populated precincts in the 2016 precinct layer, one more than Illustrative Plan 1. As the 2016 precinct layer is the most current precinct layer and is the precinct guideline to follow when drawing a map now, this plan increases the number of split precincts by six (6). To draw a Congressional map with zero deviation, it is necessary to divide some voting precincts. However, Illustrative Plan 2 not only splits more voting precincts, it divides local residential neighborhoods and uses irregular geographical teatures in a similar way as Plan 1.

In Bibb County, Illustrative Plan 2 nearly follows the same boundary line of the existing map in one area. Yet three (3) census blocks are changed resulting in a different division of the Howard 2 voting precinct. It now runs through the middle of a cul-de-sac on a residential street and changes the district assignment of 30 people. (Exhibit 15)

In Effingham County, the same split of the small town of Guyton exists as previously described on Illustrative Plan 1. (Exhibit 11)

In Lowndes County, there are only nine (9) voting precincts. Mr. Cooper takes two precincts in their entirety into District 2 (precincts Clyattville and Mildred). He splits five additional precincts, cutting out parts of the city of Valdosta. The district lines in this area follow random features and divide local residential neighborhoods. The portion of Lowndes County cut out for District 2 was an attempt to reduce the effect on black population numbers in District 2 when he removed Bibb County. The population in Lowndes County that Mr. Cooper puts into District 2 is 55.95% AP black and 52.18% AP BVAP. The remainder of the county

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that is in District 8 is 19.37% AP black and 18.36% AP BVAP. It is clear here that Mr. Cooper chose the population specifically due to their race. (Exhibit 16)

Compactness

Illustrative Plan 2 does not improve on compactness from either Congress12 or Illustrative Plan 1. The charts below show that on the Reock test, Illustrative Plan 2 scores slightly more compact than Mr. Cooper's Plan 1, but still less compact than the current map, Congress12. (*See* Exhibits 12B and 13B)

A

Compactness Score for all districts- Reock

	Congress12 Current Plan	Illustrative Plan 1	Illustrative Plan 2
Min.	0.33	0.26	0.34
Max.	0.55	0.540	0.54
Mean	0.45	0.42	0.44
Std. Deviation	0.07	0.08	0.07
	OFTRIF		

Compactness Score for Congressional District 12- Reock

	Congress12 Current Plan	Illustrative Plan 1	Illustrative Plan 2	
District 12	0.41	0.35	0.34	

For the Polsby-Popper analysis, Illustrative Plan 2 has slightly more compact scores than Illustrative Plan 1, but does not show more compactness than the existing map. This is also true for District 12 alone, which still scores lower on Plan 2 than the existing map Congress12.

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	Congress12 Current Plan	Illustrative Plan 1	Illustrative Plan 2
Min.	0.16	0.14	0.15
Max.	0.37	0.37	0.37
Mean	0.26	0.24	0.25
Std. Deviation	0.06	0.07	0.06

Compactness Scores for all districts- Polsby-Popper

 Compactness Score for Congressional District 12- Polsby-Popper
 Illustrative Plan 1
 Illustrative Plan 2

 District 12
 0.18
 0.16
 0.17

 District 12
 0.18
 occurrent Plan
 0.17

Based on the foregoing analysis, I conclude that the districts, as modified from the current plan, in Illustrative Plans 1 and 2 are not based on any traditional redistricting principles. Rather, districts 2 and 12 in Illustrative Plans 1 and 2 are drawn with a complete and total focus on the race of those individuals that are moved in and out of those districts. In contrast, the current congressional plan (Congress12) considered all traditional redistricting principles and drew majority-minority districts that gave African-American voters the opportunity to elect their candidates of choice. Further, the Plaintiffs' illustrative district plans do not demonstrate that the African-American population is geographically compact enough to

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allow for the creation of an additional majority-minority district. Even after Cooper's use of race as a predominant factor in redistricting, he was only able to make District 12 majority African-American by reducing the African-American population in District 2 below majority Cooper's plans would have a detrimental effect on all affected voters, communities, and status. election officials across the state of Georgia.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true REPRESENDER OWNERS CON CONTRACTOR CON and correct.

Executed this 25 day of January, 2019.

Legislative and Congressional **Reapportionment Office**



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Plan	Name:	Cong02		Plan Type: Co	ngress	Use	er: staff		Administrator:	State	KHIBIT 1B
DIST	RICT	POPULATION	DEVIATION	% DEVIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL BLACK	HISP. OR LATINO	%HISP
001		629,761	34	0.01%	143,017	22.71%	3,149	146,166	23 21%	25,831	4.10%
	VAP	456,300			94,914	20,80%	1,104	96,018	21.04%	16,696	3.66%
002		629,735	8	0.00%	281,832	44.75%	2,933	284,765	45.22%	21,902	3.48%
	VAP	455,164			187,367	41.16%	1,314	188,681	41.45%	14,700	3,23%
003		629,748	21	0.00%	251,792	39_98%	2,133	253,925	40.32%	16,140	2.56%
	VAP	464,632			173,520	37.35%	947	174,467	37.55%	10,834	2.33%
004		629,690	-37	-0_01%	337,146	53.54%	7,203	344,349	54.69%	53,836	8.55%
	VAP	472,785			232,274	49.13%	4,211	236,485	50.02%	40,046	8.47%
005		629,727	0	0.00%	353,540	56 14%	4,908	358,448	56,92%	38,191	6.06%
	VAP	492,438			253,078	51,39%	3,204	256,282	52.04%	29,021	5.89%
006		629,725	-2	0.00%	43,856	6,96%	2,484	46,340	7,36%	28,359	4.50%
	VAP	455,805			30,186	6,62%	1,144	31,330	6.87%	19,884	4.36%
007		629,706	-21	0.00%	44,474	7.06%	2,292	46,766	7,43%	34,011	5.40%
	VAP	444,493			29,384	6.61%	871	30,255	6.81%	22,697	5.11%
008		629,700	-27	0_00%	79,413	12.61%	2,106	81,519	12.95%	13,480	2.14%
	VAP	457,971			\$4,564	11,91%	721	55,285	12.07%	8,973	1_96%
009		629,762	35	0.01%	86,571	13.75%	2,015	88,586	14.07%	16,379	2.60%
	VAP	467,232		TRIL	60,059	12.85%	644	60,703	12,99%	10,599	2.27%
010		629,702	-25	0.00%	21,620	3.43%	1,349	22,969	3.65%	59,240	9.41%
	VAP	463,958			15,177	3,27%	412	15,589	3,36%	37,895	8.17%
011		629,730	3	0.00%	179,296	28.47%	3,967	183,263	29.10%	45,433	7.21%
	VAP	465,484			121,117	26.02%	1,600	122,717	26.36%	31,026	6.67%
012		629,735	8	0.00%	268,207	42.59%	3,807	272,014	43,19%	18,112	2.88%
	VAP	470,201			181,648	38.63%	1,719	183,367	39.00%	12,699	2.70%
013		629,732	5	0.00%	258,778	41.09%	5,537	264,315	41.97%	64,313	10.21%
	VAP	450,756		117	169,697	37.65%	2,602	172,299	38.22%	44,188	9.80%

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Plan Name: Cong02	Plan Type : Congress			Use	er: staff	Administrator: State			
DISTRICT POPULATION	DEVIATION DE	% VIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL BLACK	HISP. OR LATINO	%HISP
DISTRICT POPULATION Total Population: 8,186,453 Ideal Value: 629,727 Summary Statistics Population Range: 629,690 Population Range: 629,690 to 6 Absolute Overall Range: -0.01% to 6 Relative Range: -0.01% to 0 Relative Overall Range: 0.01% to 0	529,762 0.01%	RETRIEVE	BLACK	ENOCRA	COMBO	<u>BLACK</u>	BLACK		%HISP





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P	lan Nam	e: Cong05	Plan	Гуре: Congre	\$\$5	User: staff		Administ	rator: State	EXH	IBIT 2B
DIST	RICT	POPULATION	DEVIATION	% DEVIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL BLACK	HISP.OR LATINO	%HISP,
001	VAP	629,727 457,934	0	0.00%	158,066 105,349	25.10% 23.01%	3,308 1,208	161,374 106,557	25.63% 23.27%	24,035 15,552	3.82% 3.40%
002	VAP	629,727 455,548	0	0.00%	301,120 202,775	47.82% 44.51%	3,171 1,427	304,291 204,202	48.32% 44.83%	18,867 12,735	3.00% 2.80%
003	VAP	629,727 457,200	0	0.00%	120,612 81,885	19.15% 17.91%	2,133 748	122,745 82,633	19_49% 18_07%	13,963 9,483	2.22% 2.07%
004	VAP	629,726 461,692	-1	0.00%	333,897 228,096	53.02% 49.40%	7,382 4,168	341,279 232,264	54.19% 50.31%	67,666 48,709	10.75% 10.55%
005	VAP	629,728 488,824	1	0.00%	353,437 251,457	56.13% 51.44%	4,563 2,978	358,000 254,435	56.85% 52.05%	38,955 29,547	6.19% 6.04%
006	VAP	629,726 466,289	-1	0.00%	43,087 31,236	6.84% 6.70%	2,566 1,324	45,653 32,560	7.25% 6.98%	39,199 28,533	6.22% 6.12%
007	VAP	629,727 449,377	0	0.00%	73,400 49,193	11.66% 10.95%	3,052	76,452 50,424	12.14% 11.22%	38,711 26,188	6.15% 5.83%
008	VAP	629,728 459,579	1	0.00%	205,312 138,245	32.60% 30.08%	2,217 858	207,529 139,103	32.96% 30.27%	17,555 11,697	2.79% 2.55%
009	VAP	629,728 466,819	1	0.00%	18,749 13,113	2.98%	1,221 369	19,970 13,482	3.17% 2.89%	58,356 37,251	9.27% 7.98%
010	VAP	629,728 477,825	1	0.00%	125,591 \$7,687	19.94% 18.35%	2,557 1,003	128,148 88,690	20.35% 18.56%	20,871 14,074	3.31% 2.95%
011	VAP	629,727 459,803	0	0.00%	74,164 50,932	11.78% 11.08%	2,638 981	76,802 51,913	12.20% 11.29%	32,335 22,031	5.13% 4.79%
012	VAP	629,727 460,719	0	6.00%	281,965 191,307	44.78% 41.52%	3,173 1,429	285,138 192,736	45.28% 41.83%	16,937 11,437	2.69% 2.48%
013	VAP	629,727 455,610	0	0,00%	260,142 171,710	41.31% 37.69%	5,902 2,769	266,044 174,479	42.25% 38.30%	47,777 32,021	7.59% 7.03%

Total Population: 8,186,453

Ideal Value: 629,727

Summary Statistics

Population Range: 629,726 to 629,728 Absolute Range: -1 to 1 Absolute Overall Range: 2 Relative Range: 0.00% 0.00% to Relative Overall Range: 0.00%

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User: staff	2	Administrator:	EXHIBIT 2C		
BLACK	TOTAL	%TOTAL	HISP	OR	

DISTI	RICT	POPULATION	DEVIATION	% DEVIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL BLACK	HISP. OR LATINO	%HISP
001		722,068	30,093	4.35%	182,703	25.30%	7,900	190,603	26.40%	46,428	6.43%
	VAP	539,387			129,773	24.06%	2,696	132,469	24.56%	29,439	5 46%
002		631,973	-60,002	-8,67%	305,953	48,41%	5,736	311,689	49.32%	29,025	4 59%
	VAP	473,245			219,331	46_35%	2,345	221,676	46.84%	19,050	4.03%
003		817,247	125,272	18,10%	200,413	24.52%	8,488	208,901	25,56%	40,003	4.89%
	VAP	602,082			139,910	23,24%	2,939	142,849	23.73%	25,424	4.22%
004		665,541	-26,434	-3,82%	373,326	56.09%	9,361	382,687	57.50%	107,294	16.12%
	VAP	491,317			268,506	54.65%	5,131	273,637	55.69%	70,639	14.38%
005		630,462	-61,513	-8_89%	317,168	50,31%	7,641	324,809	51,52%	50,167	7.96%
VAP	VAP	502,193			241,214	48.03%	5,034	246,248	49.03%	35,026	6.97%
006		767,798	75,823	10.96%	78,905	10.28%	6,989	85,894	11.19%	71,779	9.35%
VAP	VAP	567,076			57,271	10.10%	3,082	60,353	10.64%	46,929	8.28%
007		903,191	211,216	30.52%	202,154	22 38%	11,700	213,854	23,68%	118,860	13,16%
	VAP	642,070			133,875	20,85%	4,584	138,459	21,56%	74,110	11.54%
008		715,599	23,624	3,41%	249,953	34.93%	6,174	256,127	35.79%	34,843	4.87%
VAI	VAP	530,981			(75,335	33.02%	2,143	177,478	33.42%	21,531	4.05%
009		823,583	131,608	19.02%	27,508	3.34%	4,177	31,685	3.85%	111,467	13.53%
V	VAP	609,141		ETPhi	19,728	3.24%	1,160	20,888	3.43%	65,538	10.76%
010		738,248	46,273	6.69%	143,121	19.39%	6,560	149,681	20,28%	44,248	5.99%
	VAP	567,614			103,905	18.31%	2,380	106,285	18.72%	27,806	4.90%
011		794,969	102,994	14.88%	123,977	15.60%	8,554	132,531	16_67%	68,054	8.56%
	VAP	583,126			85,977	14.74%	2,828	88,805	15.23%	41,678	7,15%
012		692,529	554	0.08%	299,534	43.25%	6,850	306,384	44.24%	31,703	4.58%
	VAP	523,257			214,419	40,98%	2,736	217,155	41,50%	20,820	3.98%
013		784,445	92,470	13,36%	445,720	56.82%	13,533	459,253	58.54%	99,818	12.72%
VAP	VAP	564,612			308,226	54.59%	6,261	314,487	55,70%	61,012	10.81%
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Plan Name:	CONG05-TIC	GER20	10-EDATA	Plan Type :		Use	er: staff		Administrator:	admin	
DISTRICT	POPULATIO	DN	DEVIATION	% DEVIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL BLACK	HISP. OR LATINO	%HISP
Total Populat Ideal Value: Summary St Population Ra Absolute Over Relative Rang Relative Over	ion: 9,687,63 691,975 atistics ange: 630,462 rall Range: ge: -8.89% all Range: 39	53 to 272, to .41%	903,191 729 30.52%	REPRIE	EDFROM	JEMOCRA	cruocité	L.COM			

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EXHIBIT 3

16 Majority AP Black counties out of top 28- Benchmark Congressional Map

Client: State Plan: Cong05 Type: Congress



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EXHIBIT 4

17 Majority AP Black counties out of top 28- Current Congressional Map





Georgia Congressional Districts

Client: State Plan: Congress12 Type: Congress

EXHIBIT 5



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Georgia Congressional Districts

Gliant: State Plan: Congress12 Type: Congress



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Georgia Congressional Districts

Client: State Plan: Congress12 Type: Congress



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Plan 1	Name: Co	ongress12	P	lan Type : Congre	ess	User	: staff	А	dministrator: S	tate	
DIST	RICT	POPULATION	DEVIATION	°∕, DEVIATION	BLACK	%. BLACK	RI ACK 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	I	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 በዐ%	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%
000	VAP	541,900		0.0070	306,497	56,56%	\$708	312,205	57.61%	37,210	6.87%
	111				86.365	12 470/	oct	02 026	12 440/	02 400	13 35%
006		691,975	0	0.00%	64 149	12.47%	3 330	67 479	13 00%	62.253	11.99%
	VAP	515,040			01,117	-CP-	5,550	01,112	1210070		
007		691,975	0	0.00%	125,010	18.07%	8,298	133,308	19.26%	129,930	18.78%
	VAP	489,868			83,00	17.10%	3,453	87,223	17.81%	82,112	10,/076
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	0.90%	46,065	6.66%	3,675	49,740	7,19%	79,413	11.48%
	VAP	520,856		L'IN	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%
012	VAP	518,253	-	0.0070	169,848	32.77%	2,741	172,589	33,30%	23,384	4,51%
012		(01.08/		0.000/	282 402	55 790/	11 657	394 150	56 96%	71 303	10 30%
013		691,976		0,00%	262 130	52.89%	5 163	267.293	53.93%	43.142	8.70%
	VAP	473,032			202,200		5,100				10.000
014		691,974	-1	0.00%	57,918	8.37%	5,428	63,346	9,15%	70,995	LU 26%
	VAP	508,184			40,501	7.97%	1,480	41,981	8,26%	41,291	8 13%

Case 1:18 GV 02869 RRS DOCUMENT 664-51 Filed 05/02/02/02 A9 Page 40 of 655

Plan Name: Co	ngress12	F	Plan Type : Congre	285	Use	r: staff	А	dministrator: State	:	
DISTRICT	POPULATION	DEVIATION	% DEVIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL Black	HISP. OR LATINO	%HISP
Total Population: Ideal Value: Summary Statisti Population Range: Absolute Overall I Relative Range: Relative Overall R	9,687,653 691,975 to Cange: 2 0.00% to ange: 0.00%	691,976 0.00%	REFRIENEDE	ROMDEN	SCRACTO	SCKET.CC	M			

Georgia Senate Districts- effective for 2014 election

Client: State Plan: Scriate14 Type: Senate

EXHIBIT 6



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Georgia Senate Districts- effective for 2014 election

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Georgia Senate Districts- effective for 2014 election



Case 1:18 GV 02869 RRS DOCUMENT 664-51 Filed 05/02/02/02 AS 0f 655

Plan I	Name: Se	enate14	F	Plan Type : Sena	ite	Use	er: Gina		Administrator: §	State	
DIST	RICT	POPULATION	DEVIATION	% DEVIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL BLACK	HISP. OR LATINO	%HISP
001		171,350	-1,644	-0.95%	37,852	22.09%	2,493	40,345	23_55%	10,252	5,98%
	VAP	127,614			26,202	20.53%	878	27,080	21.22%	6,353	4,98%
002		172,067	-927	-0_54%	92,824	53.95%	2,226	95,050	55.24%	9,860	5.73%
	VAP	132,543			66,470	50.15%	1,050	67,520	50,94%	6,981	5.27%
003		171,952	-1,042	-0.60%	39,606	23.03%	1,755	41,361	24_05%	8,534	4,96%
	VAP	129,192			28,065	21.72%	585	28,650	22,18%	5,463	4.23%
004		173,075	81	0.05%	41,571	24.02%	1,245	42,816	24.74%	8,958	5,18%
	VAP	131,149			30,454	23.22%	468	30,922	23,58%	5,691	4.34%
005		172,513	-481	-0.28%	49,881	28,91%	2,901	52,782	30.60%	71,815	41.63%
	VAP	119,904			33,732	28.13%	1,292	35,024	29.21%	45,746	38,15%
006		173,708	714	0.41%	39,863	22.95%	2,400	42,263	24.33%	24,754	14,25%
	VAP	137,161			30,590	22.30%	1,349	31,939	23.29%	16,160	11.78%
007		171,498	-1,496	-0_86%	39,294	22.91%	1,115	40,409	23.56%	11,685	6,81%
	VAP	128,245			28,401	22,15%	309	28,710	22,39%	6,972	5,44%
008		171,383	-1,611	-0.93%	F-0 56,380	32.90%	1,515	57,895	33.78%	9,198	5,37%
	VAP	128,253		(ED	40,080	31.25%	592	40,672	31,71%	5,852	4.56%
009		173,867	873	0.50%	34,699	19,96%	2,110	36,809	21,17%	18,207	10,47%
	VAP	125,254		ALL .	22,663	18_09%	832	23,495	18,76%	11,604	9 26%
010		172,386	-608	-0.35%	118,775	68,90%	2,614	121,389	70_42%	7,140	4.14%
	VAP	125,304			84,709	67,60%	1,289	85,998	68,63%	4,386	3,50%
011		172,584	-410	-0.24%	57,123	33_10%	959	58,082	33.65%	13,703	7.94%
	VAP	127,856			39,947	31.24%	352	40,299	31.52%	8,305	6.50%
012		173,031	37	0.02%	107,565	62.17%	1,262	108,827	62,89%	6,147	3.55%
	VAP	130,495			76,605	58,70%	556	77,161	59.13%	4,550	3,49%
013		171,539	-1,455	-0.84%	55,521	32.37%	951	56,472	32,92%	8,156	4.75%
	VAP	128,351			39,341	30.65%	314	39,655	30,90%	5,009	3.90%
014		173,151	157	0.09%	15,505	8.95%	1,636	17,141	9.90%	18,976	10_96%
	VAP	126,557			10,603	8.38%	465	11,068	8.75%	11,707	9.25%
015		173,280	286	0.17%	96,128	55,48%	2,958	99,086	57.18%	10,633	6,14%
	VAP	128,462			69,203	53.87%	1,220	70,423	54,82%	6,935	5,40%

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Plan N	lame: Se	nate14	F	Plan Type : Sena	te	Use	r: Gina	/	Administrator: St	ate	
									1		
DISTR	RICT	POPULATION	DEVIATION	%. DEVIATION	BLACK	%. BLACK	RI ACK COMBO	TOTAI BLACK	%TOTAI Black	HISP OR LATINO	%HISP
016		172,012	-982	-0.57%	35,797	20.81%	1,478	37,275	21,67%	7,128	4.14%
	VAP	127,450			25,465	19_98%	519	25,984	20,39%	4,552	3 57%
017		171,822	-1,172	-0.68%	51,053	29.71%	2,106	53,159	30,94%	7,980	4.64%
	VAP	121,373			33,663	27,74%	747	34,410	28,35%	4,852	4.00%
018		172,982	-12	-0.01%	48,323	27.94%	1,242	49,565	28 65%	6,126	3.54%
	VAP	132,567			35,668	26.91%	447	36,115	27_24%	3,906	2.95%
019		173,261	267	በ 15%	45,980	26,54%	1,751	47,731	27.55%	15,524	8,96%
	VAP	128,915			33,460	25,96%	52.9	33,989	26 37%	10,084	7 82%
020		173,859	865	0.50%	50,174	28.86%	1,700	51,874	29.84%	7,596	4_37%
	VAP	128,979			35,317	27.38%	567	35,884	27,82%	4,759	3.69%
021		174,508	1,514	0.88%	11,300	6.48%	1,358	12,658	7.25%	11,742	6.73%
	VAP	125,212			7,721	6.17%	489	8,210	6.56%	7,457	5,96%
022		171,645	-1,349	-0.78%	101,076	58.89%	2,998	104,074	60,63%	7,217	4,20%
	VAP	129,039			71,650	55.53%	1,337	72,997	56_57%	4,982	3,86%
023		171,559	-1,435	-0.83%	62,136	36.22%	1,544	63,680	37.12%	5,511	3.21%
	VAP	128,048			43,718	34.14%	496	44,214	34_53%	3,559	2.78%
024		172,595	-399	0.23%	33,638	19.49%	1,599	35,237	20_42%	6,943	4.02%
	VAP	129,147		ALL N	24,539	19.00%	470	25,009	19 36%	4,236	3,28%
025		174,016	1,022	0.59%	52,329	30.07%	1,171	53,500	30 74%	5,684	3.27%
	VAP	134,483			38,282	28.47%	378	38,660	28.75%	3,698	2.75%
026		171,351	-1,643	-0.95%	103,229	60.24%	1,561	104,790	61:16%	5,003	2.92%
	VAP	126,588			72,782	57.50%	626	73,408	57.99%	3,298	2.61%
027		172,726	-268	-0.15%	4,490	2.60%	778	5,268	3,05%	16,179	9.37%
	VAP	120,121			2,998	2.50%	277	3,275	2,73%	10,177	8.47%
028		172,358	-636	-0.37%	28,697	16.65%	1,436	30,133	17_48%	9,562	5.55%
	VAP	126,140			20,138	15 96%	414	20,552	16.29%	6,218	4 93%
029		173,911	917	0.53%	45,511	26.17%	1,733	47,244	27 17%	7,317	4.21%
	VAP	131,011			32,576	24.87%	552	33,128	25 29%	4,795	3 66%
030		172,531	-463	-0.27%	33,612	19.48%	2,207	35,819	20.76%	10,302	5.97%
	VAP	125,663			23,275	18.52%	700	23,975	19.08%	6,291	5.01%

2

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Plan	Name: Se	enate14	ł	Plan Type : Sena	te	Use	er: Gina		Administrator:	State	
DIST	RICT	POPULATION	DEVIATION	% DEVIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL BLACK	HISP. OR LATINO	%HISP
031		174,298	1,304	0.75%	23,616	13,55%	1,798	25,414	14_58%	10,762	6.17%
	VAP	124,828			15,799	12.66%	511	16,310	13_0 7%	6,220	4_98%
032		174,271	1,277	0.74%	14,817	8.50%	1,334	16,151	9_27%	9,811	5_63%
	VAP	130,854			10,791	8.25%	542	11,333	8.66%	6,539	5_00%
033		174,114	1,120	0.65%	62,936	36.15%	3,058	65,994	37,90%	33,571	19,28%
	VAP	128,718			43,422	33.73%	1,379	44,801	34_81%	20,775	16.14%
034		173,063	69	0.04%	108,169	62.50%	2,853	111,022	64.15%	24,642	14.24%
	VAP	123,516			75,265	60.94%	1,375	76,640	62_05%	15,146	12,26%
035		173,728	734	0.42%	107,338	61.79%	3,013	110,351	63_52%	13,774	7.93%
	VAP	122,650			72,472	59,09%	1,309	73,781	60.16%	8,213	6.70%
036		172,083	-911	-0.53%	103,348	60.06%	2,338	105,686	61_42%	12,232	7,11%
	VAP	137,631			78,481	57.02%	1,630	80,111	58.21%	8,800	6,39%
037		172,832	-162	-0.09%	30,548	17.67%	1,919	32,467	18.79%	13,258	7,67%
	VAP	126,053			20,506	16.35%	802	21,408	16.98%	8,429	6,69%
038		174,530	1,536	0.89%	110,537	63.33%	2,421	112,958	64.72%	17,411	9.98%
	VAP	129,186		(JED	80,556	62.36%	1,289	81,845	63,35%	10,835	8 39%
039		173,809	815	0.47%	110,761	63.73%	2,303	113,064	65_05%	9,651	5,55%
	VAP	139,465		Q.L.	83,562	59.92%	1,557	85,119	61.03%	6,962	4,99%
040		173,539	545	0.32%	26,747	15.41%	1,754	28,501	16.42%	36,807	21.21%
	VAP	133,946			20,482	15,29%	1,010	21,492	16.05%	25,354	18,93%
041		173,452	458	0.26%	90,037	51.91%	2,732	92,769	53.48%	23,281	13.42%
	VAP	127,577			64,136	50.27%	1,444	65,580	51.40%	14,850	11.64%
042		172,447	-547	-0.32%	42,913	24.88%	1,779	44,692	25.92%	24,229	14.05%
	VAP	138,757			33,570	24.19%	1,094	34,664	24.98%	16,922	12.20%
043		172,105	-889	-0.51%	105,035	61.03%	2,631	107,666	62.56%	12,251	7.12%
	VAP	123,175			71,792	58.28%	1,213	73,005	59 27%	7,461	6.06%
044		[74,464	1,470	0.85%	122,966	70.48%	2,787	125,753	72.08%	14,561	8.35%
	VAP	127,853			87,966	68.80%	1,378	89,344	69.88%	9,051	7.08%
045		173,558	564	0.33%	24,226	13.96%	1,927	26,153	15.07%	22,225	12.81%
	VAP	120,526			15,902	13.19%	691	16,593	13.77%	13,760	11.42%

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Plan N	lame: Se	nate14	P	lan Type : Senat	e	Use	r: Gina	A	dministrator: Sta	ate	
									: Ĩ		
				U/.		0/_	RIACK	TATAI	%TOTAT	HISP AR	
DISTR	ICT	POPULATION	DEVIATION	DEVIATION	BLACK	BLACK	СОМВО	BLACK	BLACK	LATINO	%HISP
046		174,230	1,236	0.71%	30,244	17.36%	1,313	31,557	18.11%	8,606	4.94%
	VAP	135,912			21,845	16.07%	563	22,408	16.49%	5,673	4,17%
047		174,417	1,423	0_82%	25,803	14.79%	1,534	27,337	15.67%	16,455	9,43%
	VAP	129,264			18,117	14.02%	489	18,606	14.39%	9,911	7_67%
048		171,240	-1,754	-1.01%	25,398	14.83%	1,929	27,327	15.96%	21,232	12,40%
	VAP	122,833			17,133	13.95%	794	17,927	14.59%	13,645	11,11%
049		173,823	829	0.48%	12,877	7 41%	1,070	13,947	8.02%	44,504	25,60%
	VAP	125,571			9,143	7.28%	322	9,465	7.54%	25,911	20.63%
050		171,792	-1,202	-0.69%	9,219	5.37%	1,099	10,318	6.01%	13,621	7.93%
	VAP	131,117			6,960	5.31%	256	7,216	5.50%	7,940	6.06%
051		173,593	599	0,35%	1,471	0.85%	498	1,969	1,13%	7,454	4.29%
	VAP	136,858			1,128	0.82%	148	1,276	0.93%	4,570	3.34%
052		172,494	-500	-0,29%	19,604	11.37%	1,418	21,022	12,19%	18,234	10,57%
	VAP	128,253			13,936	10.87%	368	14,304	11,15%	10,849	8.46%
053		173,151	157	0.09%	20 ¹¹ 7,102	4 10%	1,091	8,193	4.73%	3,905	2.26%
	VAP	132,044		LED Y	5,563	4.21%	239	5,802	4.39%	2,345	1.78%
054		173,417	423	0.24%	4,520	2.61%	968	5,488	3,16%	38,990	22.48%
	VAP	125,379	4		3,377	2,69%	250	3,627	2,89%	22,395	17.86%
055		174,196	1,202	0.69%	114,253	65.59%	3,254	117,507	67,46%	11,564	6.64%
	VAP	123,203			78,012	63,32%	1,571	79,583	64,60%	6,951	5,64%
056		174,487	1,493	0.86%	26,018	14.91%	2,040	28,058	16.08%	22,826	13.08%
	VAP	129,856			19,127	14 73%	996	20,123	15.50%	14,917	11,49%

Total Population: 9,687,653

Ideal Value: 172,994

Summary Statistics

Population Range: 171,240 to 174,530

Absolute Overall Range: 3,290

Relative Range: -1.01% to 0.89%

Relative Overall Range: 1.90%

71 County Region over Current Congressional Map

Client: State Plan: Congress12 Type: Congress

EXHIBIT 7

Lumpkin White Habersham Stephens ttooga Pickens Banks Dawson Franklin 009 Hall Hart Cherokee Bartow Forsyth 011 Jackson Madison Elbert Fulton 007 Polk 006 Barrow Cobb Clarke Gwinnett Oglethorpe 014 ulding Oconee Walton Wilkes araisor Lincoln DeKalb 005 004 Douglas kdal 013 Greene Clayton Taliaferro Newton Morgan Columbia Carroll McDuffie Henry Fayette 010 Warren Coweta Jasper Richmo Putnam Hancock Spalding Heard Butts Glascock 003 Pike Lamar Baldwin Jefferson Burke Troup Meriwether Jones Washington Upson Bibb Wilkinsor Screve Harris Talbot Crawford Twiggs Johnson Em Peach Muscogee Taylor Ser. Houston Bleckley 012 Treutien Bulloct Effingham Marion Macon Chattahoochee Can Schley Pulaski ٢ Dooly Evans Dodge Wh Webster Stewart Sumter Bryan Tattnall Chatham 002 Wilcox Telfair Crisp Quitman Liberty Appli Terrell nġ Jeff Davis Lee Long Ben Hill Randolph Turnes Irwin Clay Bacon Wayne Coffee Calhoun Dougherty Worth McIntosh Tift Baker Pierce Atkinson Early 008 Glynn Berrien Brantley Colquitt Miller Cook Mitchell 001 Wari Lanie Seminole Camden Clinch Lowndes Decatur Grady Brooks Thomas Charlton Echols Map layers Districts:3 030 County:1 Legislative & Concressional Reapportionment Office County:1 selection sets 許能 71 County Region 15 30 45 Miles



Illustrative Plan 1- Split Counties- Bibb and Chatham Counties





Illustrative Plan 1- Split County- Lowndes County

EXHIBIT 9A



Illustrative Plan 1- Split County- Lowndes County Detail

EXHIBIT 9B



Illustrative Plan 1- Split Neighborhoods- Muscogee County

EXHIBIT 10





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

Measures of Compactness Report

Friday, Decembe	r 14, 2018	4:26 PM
Sum	N/A	
Min	0.33	
Max	0.55	
Mean	0.45	
Std. Dev.	0.07	
District	Reock	A COM
001	0.39	a ker
002	0.44	
003	0.55	
004	0.54	e RAC
005	0.52	NOC.
006	0.49	AL N.
007	0.45	
008	0.33	CR-O
009	0.36	
010	0.52	NY AND
011	0.50	, P ²¹
012	0.41	
013	0.38	
014	0.45	

EXHIBIT 12

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User: **State** Plan Name: **Illus_1Dwight** Plan Type: **Congress**

Measures of Compactness Report

Friday, Decembe	r 14, 2018		4:12 PM
Sum	N/A		
Min	0.26		
Max	0.54		
Mean	0.42		
Std. Dev.	0.08		
District	Reock	COM COM	
001	0.48	NEX.	
002	0.42		
003	0.37		
004	0.54	25	
005	0.52		
006	0.49		
007	0.45		
008	0.35		
009	0.36		
010	0.26	ENT .	
011	0.50	Rest	
012	0.35		
013	0.38		
014	0.45		

EXHIBIT 12A

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User: **State** Plan Name: **Illus_2Dwight** Plan Type: **Congress**

Measures of Compactness Report

Tuesday, Decemb	ber 18, 2018	11:58 AM
Sum	N/A	
Min	0.34	
Max	0.54	
Mean	0.44	
Std. Dev.	0.07	
District	Reock	CON CON
001	0.48	a ken
002	0.41	
003	0.49	
004	0.54	CRA CARACTERISTICS
005	0.52	NOC.
006	0.49	
007	0.45	AL Y
008	0.35	e Ro
009	0.36	
010	0.39	
011	0.50	
012	0.34	
013	0.38	
014	0.45	

EXHIBIT 12B

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User: State Plan Name: Congress12

Plan Type: Congress

Measures of Compactness Report

Friday, December 14, 2018

Sum	0.00	N/A
Min	N/A	0.16
Max	N/A	0.37
Mean	N/A	0.26
Std. Dev.	N/A	0.06

District	Perimeter	Polsby- Popper	C.C.C.
001		0.22	CH
002		0.31	100
003		0.28	A CI
004		0.27	Ch
005		0.37	LIMO
006		0.27	
007		0.26	<i>A</i> .
008		0.16	
009		0.30	
010		0.27	
011	Le la	0.28	
012		0.18	
013		0.16	
014		0.31	

EXHIBIT 13

4:27 PM

Case 1:18-0x-02869-RRS DOCUMENT 664-51 Filed 05/025/A9 Page 60 of 655

User: **State** Plan Name: **Illus_1Dwight** Plan Type: **Congress**

Measures of Compactness Report

Friday, December 14, 2018

Sum	0.00	N/A
Min	N/A	0.14
Max	N/A	0.37
Mean	N/A	0.24
Std. Dev.	N/A	0.07

District	Perimeter Polsby- Popper
001	0.25
002	0.19
003	0.22
004	0.27
005	0.37
006	0.27
007	0.26
008	0.14
009	0.30
010	0.16
011	0.28
012	0.16
013	0.16
014	0.31

4:13 PM

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EXHIBIT 13B

12:12 PM

User: **State** Plan Name: **Illus_2Dwight** Plan Type: **Congress**

Measures of Compactness Report

Tuesday, December 18, 2018

Sum	0.00	N/A
Min	N/A	0.15
Max	N/A	0.37
Mean	N/A	0.25
Std. Dev.	N/A	0.06

District	Perimeter Polsby- Popper	ET.COM
001	0.25	CKL
002	0.22	400
003	0.26	C.
004	0.27	C/-
005	0.37	- FIM
006	0.27	
007	0.26	0
008	9,15	
009	0.30	
010	0.24	
011	0.28	
012	0.17	
013	0.16	
014	0.31	









Illustrative Plan 2- Split County- Peach County

EXHIBIT 17



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

PAMELIA DWIGHT, et al.,

Plaintiffs,

v.

Civil Case No. 1:18-cv-2869-RWS

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

Defendant.

SECOND DECLARATION OF WHALIAM 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:

 My name is William S. Cooper. I serve as a demographic and redistricting expert for the Plaintiffs. I filed a declaration in this case on December 3, 2018.

I file this Second Declaration in response to points raised by Ms. Gina
H. Wright in her January 25, 2019 Expert Report ("Wright Report").

3. Ms. Wright does not effectively refute the key conclusion in my December 2018 declaration regarding the first *Gingles* precondition: African Americans in central and southeastern Georgia are sufficiently numerous and

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geographically compact to allow for the creation of an additional majority-Black U.S. House district.

4. The remainder of this declaration addresses Ms. Wright's report in a point-by-point fashion. In addition, **Section H** presents Illustrative Plan 3, which eliminates the minor boundary anomalies in Illustrative Plan 1 and Illustrative Plan 2 that Ms. Wright has highlighted in her report.

A. Definition of Majority-Black

5. Ms. Wright repeatedly asserts that the two illustrative plans I have developed eliminate one majority-Black district (District 2 in southwest Georgia) in order to create a new majority-Black district (District 12 in central and southeast Georgia). This is not true. The relevant population metric when analyzing whether a minority group is sufficiently numerous to form an additional majority-minority district is the voting age population. While CD 2 is majority-Black in total population (52.28%) under the 2011 plan, the Black voting age population ("BVAP") in CD 2 is 49.46% according to the 2010 Census.¹

6. Furthermore, the BVAP percentage of District 2 under the illustrative plans is about the same as it was under the benchmark 2005 Plan. Based on the

¹ In this declaration, "Black" means Any Part Black. "SR Black" means single-race Black. "NH Black" means non-Hispanic Black, specifically as it pertains to registered voters by race and ethnicity as reported by the Georgia Secretary of State.

2010 Census, the BVAP percentage in District 2 under Illustrative Plan 1 is 46.92% and 47.01% under Illustrative Plan 2. Thus, under both illustrative plans, District 2 is above 46.84% BVAP (2005 Plan, 2010 Census), above 44.51% SR BVAP (2005 Plan, 2000 Census), and above 37.15% SR BVAP (2000 Census, 1995 Plan).

7. Like the 2011 Plan, the two illustrative plans maintain District 2 as an African American opportunity district – that is, while District 2 is not majority-Black voting age, Black registered voters represent a majority of active registered voters (about 51% under both illustrative plans).²

8. Since 1992, CD 2 has consistently elected an African American representative, Rep. Sanford Bishop. CD 2 has not been majority-BVAP since the 1995 remedial redistricting plan was adopted after *Miller v. Johnson*.

B. Southwest Georgia and District 2

9. Ms. Wright suggests that I failed to consider the Muscogee-Columbus MSA and the majority-Black counties in southwest Georgia when drafting the illustrative plans. This is not correct. Figure 8 (p.16) in my December 2018 declaration identifies all MSAs in central and south Georgia, overlaying a county-level map with 2010 demographics by percentage Black.

² See Section C *infra* regarding my preferred method for the calculation of registered voters by race in Georgia.
10. Like the 2011 Plan and the 2005 Benchmark Plan, the illustrative plans divide Columbus-Muscogee County between District 2 and District 3. The other three counties in the Columbus-Muscogee MSA are assigned in the same fashion as the 2011 Plan. Harris County remains in District 3 and Chattahoochee and Marion counties remain in District 2.

11. To be clear, by focusing on a the 71-county area described in my December 2018 declaration, I implicitly recognized the community of interest inherent in the 16 majority-Black counties in southwest Georgia within CD 2 under both the benchmark 2005 Plan and the 2011 Plan. (See Exhibit 3 attached to the. Wright Report.) All 16 of these majority-Black counties remain in District 2 under the illustrative plans. My December 2018 declaration demonstrates that it is not necessary to reconfigure this part of CD 2 in order to draw an additional majority-Black congressional district.

12. Furthermore, the illustrative plans are superior to the 2011 Plan in terms of core retention of the population in CD 2 under the benchmark 2005 Plan. According to the 2010 Census, the benchmark CD 2 had a population of 631,973, of whom 538,552 persons (85.22%) remain in CD 2 under the 2011 Plan. By contrast, under Illustrative Plan 1, 561,158 persons (89.4%) remain in District 2. Under Illustrative Plan 2, 559,393 persons (88.5%) remain in District 2.

13. Ms. Wright reports the 2016 Black registered voter percentage in District 2 under Illustrative Plan 1 as 48.31% and 48.44% under Illustrative Plan 2. As I explain in **Section C** below, I believe Ms. Wright's methodology understates Black registered voters. Based on my methodology, the percentage of Black registered voters in District 2 is 50.92% under Illustrative Plan 1 and 51.10% under Illustrative Plan 2.

C. Methodology for Calculation of Registered Voters by Race

14. As explained in my December 2018 declaration, I calculate active registered voters by race based on the following formula: (NH Black Voters) divided by (Total Voters minus Unknown Voters). Unknown voters are voters who did not self-identify by race or ethnicity Implicit in the formula is an assumption that voters whose race is unknown are distributed at the same ratio in a precinct as those whose race is known. As of January 1, 2019, 9.49% of active registered voters statewide are in the Unknown category.³

15. I believe Ms. Wright calculates Black active registered voters divided by total active registered voters, without removing unknown voters from the total count. This approach obviously underestimates the percentage of Black registered

³ Source: http://sos.ga.gov/index.php/Elections/voter_registration_statistics The above link is updated monthly, with no online link to retrieve a similar report for prior months.

voters because it assumes that all unknown registered voters are some race other than Black.

D. Geocoding

16. I used Maptitude 2016 street files (not the Census 2010 TIGER files) for the geocoding of December 2017 registered voters. Therefore, Ms. Wright's concern that I relied upon outdated 2010 Census TIGER street address files is unfounded.

17. Modern geocoding is much more accurate than the archaic methods of fifteen years ago that Ms. Wright references. The alternative method that Ms. Wright apparently prefers – the disaggregation of voters to the block level based on voting age population in split precincts – is far from perfect. First, in some precincts the disaggregation method would allocate voters to prison sites. Second, the method does not take into account significant pockets of voting age population does not take into account significant pockets of voting age population does not take into account population based on the 2010 voting age population does not take into account population changes since 2010 that are more accurately reflected in geocoded lists of present-day voters.

18. It is not possible to disaggregate 2019 registered voters using the 2016 VTD shapefile because a number of precincts have changed boundaries, been split, or consolidated since 2016. (Wright Report, p.7, fn.2 and p.12). Moreover, the

6

publicly available 2016 VTD shapefile does not contain fields with the total number and race/ethnicity of 2016 registered voters by precinct.⁴

19. **Exhibit A** compares January 1, 2019 active Black registered voters by congressional district, as published by the Georgia Secretary of State ("SOS"), against the geocoded SOS December 2017 registered voter list by congressional district. The percentages in the rightmost column represent the difference between Black registered voters in January 2019 minus geocoded December 2017 Black registered voters.

20. One would expect differences in percentages between the two lists because 13 months separate the point in time snapshots. Nonetheless, the percentage differences for Black registered voters are minor – ranging from -1.13% in CD 5 to +0.85% in CD 13. In CD 2, the percentage of Black registered voters is 53.61% as of January 2019 versus 54.03% in December 2017. In CD 12, the percentage of Black registered voters is 35.11% as of January 2019 versus 34.90% in December 2017.

E. Boundary Anomalies

21. Ms. Wright raises concerns about certain boundaries in the illustrative plans (e.g. the split of the towns of Jenkinsburg (Butts County) and Guyton (Effingham County)). These are minor issues which can easily be addressed with

⁴ Source: http://www.legis.ga.gov/Joint/reapportionment/Documents/VTD2016-Shape.zip

technical adjustments. They are hardly necessary in order to draw an additional majority-Black congressional district, nor do they undermine the central point established through the illustrative plans: that African Americans in and around CD 12 are sufficiently numerous and geographically compact to comprise a majority of the voting age population in an additional district.

22. With respect to boundary lines, there is no such thing as a perfect plan. In fact, there are several boundary anomalies in central and south Georgia under the 2011 Plan.

23. As shown in **Figure 1**, in Columbus, the 2011 Plan slices through a neighborhood in zigzag fashion. It leaves Epworth United Methodist Church VTD (with 314 persons) in CD 2, and the remainder (7,482 persons) in CD 3.

[Remainder of the page intentionally left blank]



Figure 1 2011 Plan – Columbus – Epworth UMC VTD Split

24. The 2011 Plan splits the City of McDonough (pop. 22,084) in Henry County, in the middle of a congested downtown area. And Henry County itself, with a population of 203,923, is split three ways into CD 3, CD 10, and CD 13.

25. In Columbia County, the small city of Harlem (pop. 2,666) is divided between CD 10 and CD 12 under the 2011 Plan. Two VTDs that are partly within the city — Harlem Baptist and Harlem Middle School — are split. I have determined that with a minor change to Kiokee Baptist Church VTD (also split in Columbia County under the 2011 Plan) there would have been no need to split these two VTDS.

26. None of the above anomalies is present in the illustrative plans.

F. County Splits

27. As explained by Ms. Wright, counties must be split in order to meet one-person one-vote requirements in congressional plans. Therefore, Butts County is split in Illustrative Plan 1 and Illustrative Plan 2, but another county could be split instead. Peach County is split in Illustrative Plan 2, but Illustrative Plan 1 keeps it whole.

28. The illustrative plans split the City of Valdosta (Lowndes County). But there is nothing problematic about splitting Lowndes County. The 2015 State House plan also splits Valdosta between HD 174, HD 175, and majority-Black HD 177 (50.32% BVAP).

G. Traditional Redistricting Principles

29. **Section H** below outlines Illustrative Plan 3, which eliminates the minor boundary anomalies in Illustrative Plans 1 and 2 identified by Ms. Wright. But even without these technical adjustments, Illustrative Plans 1 and 2 clearly comply with traditional redistricting principles.

10

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30. The Reock and Polsby-Popper scores for the illustrative plans are within the norm of compactness scores in the 2011 Plan. In terms of overall compactness, an October 2012 analysis conducted by Azavea, a company which develops and markets redistricting software, ranks Georgia's 2011 Plan 12th out of 43 states with more than one congressional district.⁵ The slightly less compact scores registered by the illustrative plans are so small that the Georgia congressional plan would maintain its significantly better-than-average standing in terms of compactness under any one of the three illustrative plans.

31. The number of discrete county splits is 22 in Illustrative Plan 1 and 23 in Illustrative Plan 2, compared to a total of 45 discrete splits in the 2005 Plan and 22 in the 2011 Plan. Illustrative Plan 1 has 38 populated splits⁶ of 2016 VTDs – the same number as the 2011 Plan. Illustrative Plan 2 has 39 populated splits of 2016 VTDs.

32. Additionally, unlike the 2011 Plan, the illustrative plans do not crack the African American voting strength in central and southeast Georgia. Compared to the 2005 Plan, the 2011 Plan cuts the BVAP (2010 Census) in CD 12 from

⁵ See "REDRAWING THE MAP ON REDISTRICTING 2012", pp. 7-8 and Table 5. https://cdn.azavea.com/com.redistrictingthenation/pdfs/Redistricting_The_Nation_Addendum.pd f

⁶ A populated split divides population in a VTD into two or more districts. The 2011 Plan and the illustrative plans also split unpopulated areas. Generally, unpopulated splits involve splits due to bodies of waters or municipal boundaries.

41.50% under the 2005 Plan to 33.30% under the 2011 Plan and disperses it between CDs 1, 8, and 10. By contrast, Illustrative Plans 1 and 2 reunite African American communities that were dismantled under the 2011 Plan, therefore allowing African American voters the opportunity to elect candidates of their choice.

33. In sum, Illustrative Plans 1 and 2 adhere to traditional redistricting principles. The same cannot be said of the 2011 Plan, which does not uphold the important principle of non-dilution of the minority voting strength in CD 12.

H. Illustrative Plan 3

34. Illustrative Plan 3 (in **Figure 2** on the next page) eliminates all of the boundary anomalies in Illustrative Plans 1 and 2 identified by Ms. Wright. Illustrative Plan 3 also eliminates the 2011 Plan boundary anomalies that I have identified in **Section E** supra

35. Like Illustrative Plans 1 and 2, Illustrative Plan 3 creates a new majority-Black District 12 in central and southeast Georgia. Under Illustrative Plan 3, District 12 has a 2010 BVAP of 50.20% and 55.25% NH Black registered voters as of December 2017. District 2, in southwest Georgia, has a 2010 BVAP of 46.89% and 50.85% NH Black registered voters as of December 2017.



Figure 2 Illustrative Plan 3 – 2011 Plan Overlay

36. Illustrative Plan 3 does not split Peach County or Butts County. As in Illustrative Plans 1 and 2, the City of Valdosta is split, but the portion of Valdosta County in District 2 that is outside Valdosta is in a more geographically compact area.

37. The table in Figure 3 (condensed from Exhibits B-2 and B-5) presents

summary statistics for Districts 1, 8, 10, and 12 in Illustrative Plan 3 – representing the four congressional districts that are within the 71-county Gingles 1 area described in my December 2018 declaration.

District	% AP Black	% AP Black 18+	% NH White 18+	% NH Black Active Registered (Dec. 2017)	% NH White Active Registered (Dec. 2017)
001	24.56%	22.79%	69.60%	22,72%	73.18%
008	26.63%	25.02%	67.51%	26.09%	70.41%
010	20.84%	19.38%	73.01%	20.14%	74.84%
012	53.74%	50.20%	45.06%	55.25%	42.20%

Figure 3 Illustrative Plan 3– Summary Statistics

38. Exhibit B-1 is a statewide map depicting Illustrative Plan 3. Exhibit B-2 presents 2010 summary population statistics for all districts in Illustrative Plan 3. Exhibit B-3 identifies the 17 counties that are split, followed by a listing of the 2016 VTDs that are split (39 with populated splits). Exhibit B-4 contains detailed maps (showing town and city boundaries) for each of the six modified districts. Exhibit B-5 reports active registered voters by race for all districts (based on geocoded December 2017 registered voters, after excluding unknown voters). Exhibit B-6 identifies the 43 municipalities that are split in Illustrative Plan 3.

39. Exhibit B-7 presents Reock compactness scores for all districts inIllustrative Plan 3. The mean Reock score is .44, compared to .45 under the 2011

Plan. New majority-Black District 12 has a Reock score of .34, compared to a Reock score of .41 under the 2011 Plan.

40. **Exhibit B-8** presents Polsby-Popper scores for all districts in Illustrative Plan 3. The mean Polsby-Popper score is .25, compared to .26 under the 2011 Plan. New majority-Black District 12 has a Polsby-Popper score of .17, compared to a Polsby-Popper score of .18 under the 2011 Plan.

41. Illustrative Plan 3 splits 43 municipalities, compared to 44 splits in the 2011 Plan. Illustrative Plan 3 splits populated areas of 39 VTDs (out of 2,269 statewide 2016 VTDs), compared to 38 splits in the 2011 Plan.

42. For comparison, **Exhibit C-1** identifies the 16 counties that are split in the 2011 Plan, followed by a listing of the 2016 VTDs that are split (38 with populated splits). **Exhibit C-2** identifies the 44 municipalities that are split in the 2011 Plan. For additional comparisons with the 2011 Plan, see the Exhibit H series attached to my December 2018 Declaration.

43. The Google map available at the link below is an address-searchable map of Illustrative Plan 3, zooming in on District 12.

http://www.fairdata2000.com/Fusion/GA_Congress_Illustrative_Plan_3/

44. Illustrative Plan 3 is superior in terms of the core retention of the population in CD 2 from the benchmark 2005 Plan. Under Illustrative Plan 3,

15

561,158 persons (89.4%) remain in District 2, compared to 538,552 persons (85.22%) under the 2011 Plan.

In District 12, 443,041 persons (63.97%) from the benchmark 2005 45. Plan remain in the district under Illustrative Plan 3, while 367,931 persons (53.13%) remain in CD 12 under the 2011 Plan.

46. **Figure 4** reveals that in terms of core retention in the 71-County area and the neighboring District 2 area, Illustrative Plan 3 is overall superior to the 2011 Plan. Illustrative Plan 3 has a total core retention rate of 63.35% versus 59.43% Figure 4 Vistrin' under the 2011 Plan.

Core Retention of 2005 Plan Districts –2011 Plan vs. Illustrative Plan

~

District	Benchmark 2005 Plan CD Population (2010 Census)	2011 Plan Core Retention 2005 CD	2011 Plan % Core Retention	Illustrative Plan 3 Core Retention 2005 CD	Illustrative Plan 3 % Core Retention
CD 1	722,068	475,736	65.89%	453,327	62.78%
CD 2	631,973	538552	85.22%	565158	89.40%
CD 8	715,599	440,009	61.49%	389,289	54.40%
CD 10	738,248	258,103	34.96%	366,840	49.69%
CD 12	692,529	367,931	53.13%	443,041	63.97%
Total	3,500,417	2,080,331	59.43%	2,217,655	63.35%

47. Illustrative Plan 3 complies with traditional redistricting principles, including one-person one-vote, compactness, contiguity, respect for communities of interest, and the non-dilution of minority voting strength. To the best of my

knowledge, Illustrative Plan 3 does not pair incumbents in the same district.

I. Conclusion

48. The plaintiffs have now submitted three illustrative plans which demonstrate that there are numerous ways to draw a majority-Black district in central and southeast Georgia consistent with traditional districting principles. The illustrative plans reverse the obvious cracking of the Black population into CDs 1, 8, 10, and 12 under the 2011 Plan. Clearly, the African American population in central and southeast Georgia is sufficiently numerous and geographically compact to form an additional majority-Black district.

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: February 22, 2019

William Loopen

WILLIAM S. COOPER

REPRESED FROM DEMOCRACYDOCKET.COM

Comparison of Active Black Registered Voters by Congressional District January 1, 2019 SOS Report vs. Geocoded December 2017 Registered Voter List

	SOS	Geocded SOS	
	Jan. 2019	Dec. 2017	
	% Black	% Black	
	Registered	Registered	Difference Jan. 2019
CD	Voters	Voters	minus Dec. 2017
001	30.44%	30.86%	-0.42%
002	53.61%	54.03%	-0.42%
003	24.66%	23.94%	0.72%
004	64.82%	64.56%	0.26%
005	60.91%	62.04%	-1.13%
006	13.93%	13.45%	0.48%
007	23.25%	22.78%	0.47%
008	30.34%	29.96%	0.38%
009	6.13%	6.14%	-0.01%
010	24.50%	24.35%	0.15%
011	17.10%	16.92%	0.18%
012	35.11%	34.90%	0.21%
013	64.76%	63.91%	0.85%
014	9.25%	9.13%	0.12%
	RETRIEVE	ED FROM DEMOC	



Population Summary Report Georgia U.S. House - Illustrative Plan 3

			Any Part	% Any Part		Any Part	% Any Part		% Latino	NH White	% NH
Distric	Population	Dev.	Black	Black	18+_Pop	Black 18+	Black 18=	Latino 18+	18+	18 +	White 18 +
001	691975	0	169968	24.56%	518944	118292	22.79%	27960	5.39%	361194	69.60%
002	691975	0	343701	49.67%	520169	243884	46.89%	22099	4.25%	246530	47.39%
003	691976	1	164481	23.77%	507984	112389	22.12%	21810	4.29%	362259	71.31%
004	691976	1	408519	59.04%	503508	284007	56.41%	41041	8.15%	155926	30.97%
005	691976	1	418300	60.45%	541900	312205	57.61%	37210	6.87%	170219	31.41%
006	691975	0	93036	13.44%	519046	67479	13.00%	62253	11.99%	337354	65.00%
007	691975	0	133308	19.26%	489868	87223	17.81%	82112	16.76%	260287	53.13%
800	691975	0	184246	26.63%	517206	129427	25.02%	27983	5.41%	349187	67.51%
009	691975	0	49740	7.19%	520856	34398	6.60%	46597	8.95%	430388	82.63%
010	691974	-1	144198	20.84%	518463	100453	19.38%	22217	4.29%	378529	73.01%
011	691975	0	115261	16.66%	512598	79862	15.58%	47452	9.26%	366675	71.53%
012	691976	1	371844	53.74%	521723	261896	50.20%	15835	3.04%	235076	45.06%
013	691976	1	394150	56.96%	495652	267293	53.93%	43142	8.70%	172355	34.77%
014	691974	-1	63346	9.15%	508184	41981	8.26%	41291	8.13%	416535	81.97%
						4P-0.					
Total	9687653		3054098	31.53%	7196101	2140789	29.75%	539002	7.49%	4242514	58.96%
					FIRIT						
					8-v						

Plan Name: Plan Type: Administrator:

Ga_Congress_Illustrative_Plan_3

Political Subdivisions Split Between Districts

Wednesday January 30, 2	019	2:28 PM
Number of subdivision	s not split:	
County	142	
VTD	2,651	
Number of subdivisions	s split into more than one district:	
County	17	
VTD	46	
Number of subdivision	splits which affect <i>no</i> population:	
County	0	
VTD	7	
<u>County</u> Cases where a County is Cases where a County is Cases where a County is Number of times a Count Total of County splits: 3 <u>VTD</u> Cases where a VTD is sp Number of times a VTD I Total of VTD splits: 92	Split Counts split among 2 Districts: 13 split among 3 Districts: 3 split among 4 Districts: 1 ty has been split into more than one district: 22 9 lit among 2 Districts: 46 has been split into more than one district: 46	M

County	VTD	District	Population
Split Counties :			
BIBB		008	65,856
BIBB		012	89,691
CHATHAM		001	140,990
CHATHAM		012	124,138
CLARKE		009	17,178
CLARKE		010	99,536
CLAYTON		005	103,264
CLAYTON		013	156,160
COBB		006	178,647
COBB		011	337,811
COBB		013	171,620
DEKALB		004	354,275
DEKALB		005	159,596
DEKALB		006	178,022
EFFINGHAM		001	29,566
EFFINGHAM		012	22,684
FAYETTE		003	88,905
FAYETTE		013	17,662

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CI'C .	(
County	VTD		District	Population
Plan Type:		User:		
Plan Name:	Ga_Congress_Illustrative_Plan_3	Administrator:	0	
			1 age 23 01 40	

Split Counties	(continued):		
FORSYTH		007	122,706
FORSYTH		009	52,805
FULTON		005	429,116
FULTON		006	335,306
FULTON		011	39,661
FULTON		013	116,498
GWINNETT		004	173,981
GWINNETT		007	569,277
GWINNETT		010	62,106
HENRY		003	106.289
HENRY		013	97 633
LOWNDES		002	40.958
LOWNDES		008	68 275
MONROE		003	5 890
MONROE		010	20 534
MUSCOGEE		002	160,000
MUSCOGEE		002	10 805
NEWTON		003	78 548
NEWTON		010	78,348
DICKENS	Ch and a second s	010	21,410
PICKENS		009	19,112
PICKENS		014	10,319
Split VTDs ·	OCK.		
BIBB	HOWARD 2	008	3 305
BIBB	HOWARD 2	012	586
BIBB	VINEVILLE 6	012	3 755
	VINEVILLE 0 VINEVILLE 6	008	5,755
		012	550
CHATHAM	PD EDWARDS CYMNASIUM	001	1 200
CHATHAM	PD EDWARDS OI MINASIUM	012	1,890
CHATHAM	SAVANNAH CHRISTIAN 3	001	2,155
CHATHAM	SAVANNAH CHKISTIAN S	012	0 5 477
CHATHAM	SEVENTH DAY ADV CHR	001	5,477
CHAIHAM	SEVENTH DAY ADV CHR	012	0
COBB	CHATTAHOOCHEE 01	006	4,994
COBB	CHATTAHOOCHEE 01	011	3,916
COBB	EAST PIEDMONT 01	006	446
COBB	EAST PIEDMONT 01	011	2,939
COBB	MARIETTA 5A	006	1,529
COBB	MARIETTA 5A	011	2,074
COBB	MARIETTA 5B	006	11
COBB	MARIETTA 5B	011	4,204
COBB	MARIETTA 6A	006	1,385
COBB	MARIETTA 6A	011	3,082
COBB	MARIETTA 7A	006	1,071
COBB	MARIETTA 7A	011	7,111
COBB	PALMER 01	006	1,916
COBB	PALMER 01	011	1,664
COBB	POWERS FERRY 01	006	285
COBB	POWERS FERRY 01	011	4,688
COBB	SMYRNA 3A	011	2,462
COBB	SMYRNA 3A	013	5,189
COBB	SMYRNA 6A	011	6,655
COBB	SMYRNA 6A	013	399
COBB	SMYRNA 7A	011	598
COBB	SMYRNA 7A	013	6.909
COBB	VININGS 01	006	0
			Ū.

Case 1:18-cv-02869-JPB Document 66-6 Filed 05/01/19 Page 24 of 40

	Case 1.10-07-02003-JFD		FIIEU 03/01/19	raye 24 01 40	
Plan Name:	Ga_Congress_Illustrative_Plan_3	Administrator:		Ŭ	
Plan Type:		User:			
County	VTD			District	Population
Split VTDs (c	continued):				
COBB	VININGS 01			011	2,169
DEKALB	AVONDALE HIGH			004	2,013
DEKALB	AVONDALE HIGH			005	1,519
DEKALB	GLENNWOOD (DEC)			004	964
DEKALB	GLENNWOOD (DEC)			005	1,242
DEKALB	OAK GROVE ELEM			004	3,192
DEKALB	OAK GROVE ELEM			006	0

	GEERIN COD (DEC)	001	201
DEKALB	GLENNWOOD (DEC)	005	1,242
DEKALB	OAK GROVE ELEM	004	3,192
DEKALB	OAK GROVE ELEM	006	0
DEKALB	WADSWORTH	004	2,610
DEKALB	WADSWORTH	005	999
DEKALB	WINNONA PARK ELEM (DEC)	004	5
DEKALB	WINNONA PARK ELEM (DEC)	005	2,430
EFFINGHAM	2B	001	3,605
EFFINGHAM	2B	012	579
EFFINGHAM	3A	001	417
EFFINGHAM	3A	012	1,419
EFFINGHAM	3D	001	3,072
EFFINGHAM	3D	012	314
EFFINGHAM	4B	001	2,265
EFFINGHAM	4B	012	171
FAYETTE	DOGWOOD	003	2,259
FAYETTE	DOGWOOD	013	993
FAYETTE	SANDY CREEK	003	4,493
FAYETTE	SANDY CREEK	013	1,486
FORSYTH	03 BROWNS BRIDGE	007	6,222
FORSYTH	03 BROWNS BRIDGE	009	5,685
FORSYTH	10 MIDWAY	007	17,803
FORSYTH	10 MIDWAY	009	49
FORSYTH	15 HEARDSVILLE	007	7
FORSYTH	15 HEARDSVILLE	009	10,502
FORSYTH	16 OTWELL	007	11,755
FORSYTH	16 OTWELL	009	3,205
FULTON	CP051	005	1,965
FULTON	CP051	013	15
FULTON	EP04	005	6,810
FULTON	EP04	013	1,999
GWINNETT	BERKSHIRE J	004	3,319
GWINNETT	BERKSHIRE J	007	0
GWINNETT	CATES D	004	3,515
GWINNETT	CATES D	007	834
GWINNETT	DUNCANS D	007	0
GWINNETT	DUNCANS D	010	6,851
LOWNDES	MILDRED	002	6,668
LOWNDES	MILDRED	008	713
LOWNDES	NORTHSIDE	002	27,563
LOWNDES	NORTHSIDE	008	16,502
LOWNDES	RAINWATER	002	4,032
LOWNDES	RAINWATER	008	9,881
LOWNDES	TRINITY	002	2,695
LOWNDES	TRINITY	008	14,970
MONROE	EVERS	003	1,753
MONROE	EVERS	010	553
MUSCOGEE	ST. PETER	002	2,285
MUSCOGEE	ST. PETER	003	2,248
NEWTON	ALCOVY	004	4,868
NEWTON	ALCOVY	010	526
NEWTON	ROCKY PLAINS	004	583

Plan Name: Plan Type:	Case 1:18-cv-02869-JPB Ga_Congress_Illustrative_Plan_3	Document 66-6 Administrator: User:	Filed 05/01/19	Page 25 of 40	
County	VTD			District	Population
Split VTDs (continued):				
NEWTON	ROCKY PLAINS			010	4,057
PICKENS	TATE			009	1,074
PICKENS	TATE			014	2,144

REPARTED FROM DEMOCRACIDOCKEL.COM













Voter Registration by Race/Ethnicity*

Georgia U.S. House - Illustrative Plan 3

Black not of Hispanic						
District	Origin	NH White				
001	22.72	% 73.18%)			
002	50.85	% 46.43%	la de la della d			
003	23.75	% 72.18%				
004	64.82	% 27.08%				
005	60.91	% 32.29%	CE			
006	13.93	% 72.94%	400			
007	23.25	% 54.98%				
800	26.09	% 70.41%)			
009	6.13	% 88.62%)			
010	20.14	% 74.84%)			
011	17.10	%74.73%)			
012	55.25	% 42.20%)			
013	64.76	% 27.60%)			
014	9,25	% 85.43%)			
	LE .					

Note: Calculations exclude voters whose race is unknown.

Calculations for districts 1,2,3, 8, 10, and 12 are based on a geocoded statewide list of December 2017 registered voters. Statistics for the remaining districts are based on the January 1, 2019 Georgia SOS report.

REPREVED FROM DEMOCRACYDOCKET.COM

Illustrative Plan 3 -- Statewide Municipal Splits

	Number		
	of	Total Pop. Of	
Municipal Splits	Districts	Municipality	
Athens-Clarke County	2	115,452	
Atlanta	2	420,003	
Belvedere Park	2	15,152	
Braselton	2	7,511	
Bremen	2	6,227	
Buford	2	12,225	
Candler-McAfee	2	23,025	
College Park	2	13,942	
Columbus	2	189,885	
Decatur	2	19,335	
East Point	2	33,712	
Fair Oaks	2	8,225	
Fayetteville	2	15,945	
Garden City	2	8,778	
Hampton	2	6,987	OW
Jasper	2	3,684	
Lilburn	2	11,596	CHK.
Loganville	3	10,458	000
Macon	3	91,351	G ¹
Manchester	2	4,230	
Marietta	2	56,579	
Morrow	2	6,445	
Mountain Park	3	O ^N 12,101	
Nelson	2	1,314	
North Atlanta	2 5	40,456	
North Druid Hills	2011	18,947	
Palmetto	2	4,488	
Panthersville	2	9,749	
Perry	2	13,839	
Rest Haven	2	62	
Rincon	2	8,836	
Sandy Springs	2	93,853	
Savannah	2	136,286	
Smyrna	2	51,271	
Snellville	2	18,242	
Stockbridge	2	25,636	
Taylorsville	2	210	
Tucker	2	27,581	
Valdosta	2	54,518	
Vidalia	2	10,473	
Villa Rica	2	13,956	
Warner Robins	2	66,588	
Waycross	2	14,649	

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Ga_Congress_Illustrative_Plan_3 Plan Name: Plan Type: Date: 1/30/2019 Time: 2:29:00PM Administrator:

Measures of Compactness

DISTRICT	Roeck	
001	0.48	
002	0.42	
003	0.50	
004	0.54	
005	0.52	
006	0.49	
007	0.45	
008	0.35	
009	0.36	
010	0.39	and the second sec
011	0.50	
012	0.34	
013	0.38	-Cler
014	0.45	0
Sum	N/A	A ^C
Min	0.34	C
Max	0.54	N.
Mean	0.44	
Std. Dev.	0.07	OW
		RETRIEVED FR

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Ga_Congress_Illustrative_Plan_3 Plan Name: Plan Type: Date: 1/30/2019 Time: 2:29:31PM Administrator:

Measures of Compactness

DISTRICT	
001	0.25
002	0.20
003	0.24
004	0.27
005	0.37
006	0.27
007	0.26
008	0.14
009	0.30
010	0.23
011	0.28
012	0.17
013	0.16
014	0.34
Sum	N/A N/A
Min	0.14
Max	0.37
Mean	0.25
Std. Dev.	0.06
	LIR ²⁴
	Q^{Σ}

Plan Name: Plan Type: Administrator: ga_congress_2012_2016_vtd_report

Political Subdivisions Split Between Districts

Thursday January 31,	2019	10:50 AM		
Number of subdivis	sions not split:			
County	143			
VTD	2,654			
Number of subdivis	ions split into more than one district:			
County	16			
VTD	43			
Number of subdivis	ion splits which affect no population:			
County	0			
VTD	5			
<u>County</u> Cases where a Cour Cases where a Cour Cases where a Cour	Split Counts ty is split among 2 Districts: 11 ty is split among 3 Districts: 4 ty is split among 4 Districts: 1	com		
Number of times a C Total of County split	s: 38			
VTD				
Cases where a VTD	Cases where a VTD is split among 2 Districts: 43			
Number of times a	(TD has been split into more than one district: 43			
Total of VTD splits:	86			
	P.C.			

County	VTD	District	Population
Split Counties :			
BIBB		002	112,650
BIBB		008	42,897
CLARKE		009	17,178
CLARKE		010	99,536
CLAYTON		005	103,264
CLAYTON		013	156,160
COBB		006	178,647
COBB		011	337,811
COBB		013	171,620
COLUMBIA		010	15,328
COLUMBIA		012	108,725
DEKALB		004	354,275
DEKALB		005	159,596
DEKALB		006	178,022
EFFINGHAM		001	30,877
EFFINGHAM		012	21,373
FAYETTE		003	88,905
FAYETTE		013	17,662

Plan Name: Case 1:18-cv-02869-JPB Document 66-6 Filed 05/01/19 Page 38 of 40 Administrator:

Plan Type:		User:		
County	VTD		District	Population
Split Counties (co	ntinued):			
FORSYTH			007	122,706
FORSYTH			009	52,805
FULTON			005	429,116
FULTON			006	335,306
FULTON			011	39,661
FULTON			013	116,498
GWINNETT			004	173,981
GWINNETT			007	569,277
GWINNETT			010	62,106
HENRY			003	60,521
HENRY			010	45,768

HENRY

LOWNDES

LOWNDES MUSCOGEE

MUSCOGEE

NEWTON

NEWTON

PICKENS

PICKENS PICKENS		009 014	19,112 10,319
Snlit VTDs ·	J.		
BIBB	HOWARD 2	002	725
BIBB	HOWARD 2 HOWARD 2	002	3 256
COBB	CHATTAHOOCHEE 01	006	4 994
COBB	CHATTAHOOCHEE 01	011	3 916
COBB	EAST PIEDMONT 01	006	446
COBB	EAST PIEDMONT 01	011	2.939
COBB	MARIETTA 5A	006	1.529
COBB	MARIETTA 5A	011	2.074
COBB	MARIETTA 5B	006	,071
COBB	MARIETTA 5B	011	4.204
COBB	MARIETTA 6A	006	1.385
COBB	MARIETTA 6A	011	3.082
COBB	MARIETTA 7A	006	1.071
COBB	MARIETTA 7A	011	7.111
COBB	PALMER 01	006	1.916
COBB	PALMER 01	011	1,664
COBB	POWERS FERRY 01	006	285
COBB	POWERS FERRY 01	011	4,688
COBB	SMYRNA 3A	011	2,462
COBB	SMYRNA 3A	013	5,189
COBB	SMYRNA 6A	011	6,655
COBB	SMYRNA 6A	013	399
COBB	SMYRNA 7A	011	598
COBB	SMYRNA 7A	013	6,909
COBB	VININGS 01	006	0
COBB	VININGS 01	011	2,169
COLUMBIA	HARLEM BAPTIST	010	1,141
COLUMBIA	HARLEM BAPTIST	012	982
COLUMBIA	HARLEM MIDDLE SCHOOL	010	921
COLUMBIA	HARLEM MIDDLE SCHOOL	012	1,961
COLUMBIA	KIOKEE BAPT CHURCH	010	902
COLUMBIA	KIOKEE BAPT CHURCH	012	2,558
DEKALB	AVONDALE HIGH	004	2,013
DEKALB	AVONDALE HIGH	005	1,519

97,633

5,668

103,565

145,487

44,398

78,548

21,410

19,112

013

001

008

002

003

004

010

009

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 2012 2016 and	and and Administration		

Plan Name:	ga_congress_2012_2016_vtd_rep	oort Administrator:	
Plan Type:		User:	

Split VTD: (continued): DEKALB GLENNWOOD (DEC) 004 964 DEKALB GLENNWOOD (DEC) 005 1.242 DEKALB OAK GROVE ELEM 006 00 DEKALB OAK GROVE ELEM 006 00 DEKALB WADSWORTH 004 2.610 DEKALB WADSWORTH 004 2.610 DEKALB WINNONA PARK ELEM (DEC) 004 5 DEKALB WINNONA PARK ELEM (DEC) 005 2.430 EFFINGHAM IB 012 1.400 EFFINGHAM B 012 1.503 FAYETTE DOGWOOD 003 2.259 FAYETTE DOGWOOD 013 1.486 FAYETTE SANDY CREEK 003 3.568 FAYETTE WILLOW POND 013 1.846 FORSYTH 03 BROWNS BRIDGE 007 6.222 FORSYTH 03 BROWNS BRIDGE 007 1.7803 FORSYTH 15 HEARDSVILLE 007 1.03	County	VTD	District	Population
DEKALB GLENNWOOD (DEC) 004 964 DEKALB GLENNWOOD (DEC) 005 1.242 DEKALB OAK GROVE ELEM 006 0 DEKALB WADSWORTH 004 2.610 DEKALB WADSWORTH 005 999 DEKALB WINNONA PARK ELEM (DEC) 001 2.671 DEKALB WINNONA PARK ELEM (DEC) 001 2.671 EFFINGHAM IB 012 1.600 EFFINGHAM B 012 1.503 EFFINGHAM 4B 012 1.503 EFFINGHAM 4B 013 993 EAYETTE DOGWOOD 003 3.638 EAYETTE DOGWOOD 013 0.0 FAYETTE SANDY CRFEK 003 1.486 FAYETTE WILLOW POND 013 0.0 FORSYTH 03 BROWNS BRIDGE 007 7.7803 FORSYTH 10 MIDWAY 009 3.685 FULTON CP051 007	Split VTDs (continue	ed):		
DEKALB GLENNWOOD (DEC) 005 1.242 DEKALB OAK GROVE ELEM 006 0 DEKALB OAK GROVE ELEM 006 0 DEKALB WADSWORTH 004 2,610 DEKALB WADSWORTH 005 999 DEKALB WINNONA PARK ELEM (DEC) 004 5 DEKALB WINNONA PARK ELEM (DEC) 005 2,430 EFFINGHAM IB 012 1,400 EFFINGHAM B 012 1,603 EFFINGHAM B 012 1,603 FAYETTE DOGWOOD 003 3,259 FAYETTE SANDY CREEK 003 4,493 FAYETTE SANDY CREEK 013 0 FORSYTH 03 BROWNS BRIDGE 007 6,222 FORSYTH 03 BROWNS BRIDGE 007 6,225 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 16 GTWELL	DEKALB	GLENNWOOD (DEC)	004	964
DEFAILB OAK GROVE FLEM O04 3,192 DEKALB OAK GROVE FLEM 006 0 DEKALB WADSWORTH 005 999 DEKALB WINNONA PARK FLEM (DEC) 004 2.610 DEKALB WINNONA PARK FLEM (DEC) 005 2.430 DEKALB WINNONA PARK FLEM (DEC) 001 2.671 EFFINGHAM IB 012 1.503 FFINGHAM B 012 1.503 FAYETTE DOGWOOD 003 2.259 FAYETTE DOGWOOD 013 4.093 FAYETTE SANDY CREEK 003 4.493 FAYETTE WILLOW POND 003 3.08 FORSYTH 03 BROWNS BRIDGE 007 7.7 FORSYTH 10 MIDWAY 007 17.803 FORSYTH 10 MIDWAY 009 1.005 FORSYTH 10 MIDWAY 007 17.755 FORSYTH 16 OTWELL 007 17.803 FULTON CP051 <td>DEKALB</td> <td>GLENNWOOD (DEC)</td> <td>005</td> <td>1.242</td>	DEKALB	GLENNWOOD (DEC)	005	1.242
DEKALB OAK CROVE ELEM OG O DEKALB WADSWORTH 004 2.610 DEKALB WADSWORTH 005 999 DEKALB WINNONA PARK ELEM (DEC) 004 .5 DEKALB WINNONA PARK ELEM (DEC) 005 2.430 DEKALB WINNONA PARK ELEM (DEC) 005 2.430 EFFINGHAM IB 012 1.503 EFFINGHAM B 012 1.503 FAYETTE DOGWOOD 003 2.259 FAYETTE SANDY CREEK 013 4.403 FAYETTE WILLOW POND 003 3.568 FAYETTE WILLOW POND 013 007 FORSYTH 03 BROWNS BRIDGE 007 6.222 FORSYTH 10 MIDWAY 007 17.803 FORSYTH 10 MIDWAY 007 17.503 FORSYTH 16 HEARDSVILLE 007 1.999 FULTON CP051 013 1.55 FULTON CP051	DEKALB	OAK GROVE ELEM	004	3.192
DEKALB WADSWORTH 004 2.610 DEKALB WADSWORTH 005 999 DEKALB WINNONA PARK ELEM (DEC) 004 5 DEKALB WINNONA PARK ELEM (DEC) 005 2.430 EFFINGHAM IB 011 2.671 EFFINGHAM B 012 1.400 EFFINGHAM 4B 012 1.503 FAYEITE DOGWOOD 003 2.259 FAYEITE SANDY CREEK 003 4.493 FAYEITE SANDY CREEK 003 3.568 FAYEITE WILLOW POND 013 00 FORSYTH 03 BROWNS BRIDGE 007 6.222 FORSYTH 10 MIDWAY 007 17.803 FORSYTH 15 HEADSVILLE 007 17.85 FORSYTH 16 OTWELL 007 17.55 FORSYTH 16 MIDWAY 009 3.056 FULTON CP051 005 1.965 FULTON EP04 007	DEKALB	OAK GROVE ELEM	006	0
DEKALB WADSWORTH 005 999 DEKALB WINNONA PARK ELEM (DEC) 004 5 DEKALB WINNONA PARK ELEM (DEC) 005 2,430 DEKALB WINNONA PARK ELEM (DEC) 005 2,430 DEFINGHAM IB 011 2,671 EFFINGHAM 4B 012 1,503 EFFINGHAM 4B 013 933 FAYETTE DOGWOOD 013 935 FAYETTE SANDY CREEK 013 1,486 FAYETTE WILLOW POND 003 3,568 FAYETTE WILLOW POND 013 0 FORSYTH 03 BROWNS BRIDGE 007 6,222 FORSYTH 04 MONS BRIDGE 009 49 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 10 MIDWAY 007 10,502 FORSYTH 10 MIDWAY 007 10,502 FORSYTH 16 OTWELL 009 3,205 FULTON CP051	DEKALB	WADSWORTH	004	2.610
DEKALB WINNONA PARK ELEM (DEC) 004 5 DEKALB WINNONA PARK ELEM (DEC) 005 2.430 EFFINGHAM IB 011 2.671 EFFINGHAM IB 012 1.400 EFFINGHAM 4B 012 1.503 FAYETTE DOGWOOD 003 2.259 FAYETTE DOGWOOD 013 993 FAYETTE SANDY CREEK 001 3.1486 FAYETTE SANDY CREEK 013 1.486 FAYETTE WILLOW POND 003 3.568 FAYETTE WILLOW POND 013 0 FORSYTH 03 BROWNS BRIDGE 007 6.222 FORSYTH 10 MIDWAY 007 17.803 FORSYTH 10 MIDWAY 009 4.90 FORSYTH 16 OTWELL 007 17.55 FORSYTH 16 OTWELL 007 17.55 FORSYTH 16 OTWELL 007 0 GWINNETT DEP04 005	DEKALB	WADSWORTH	005	999
DEKALB WINNONA PARK ELEM (DEC) 005 2,430 EFFINGHAM 1B 001 2,671 EFFINGHAM 1B 012 1,400 EFFINGHAM 4B 012 1,503 FAYETTE DOGWOOD 003 2,259 FAYETTE SANDY CREEK 003 4,493 FAYETTE SANDY CREEK 013 1,486 FAYETTE WILLOW POND 003 3,568 FAYETTE WILLOW POND 013 0 FORSYTH 05 BROWNS BRIDGE 007 6,222 FORSYTH 10 MIDWAY 009 5,685 FORSYTH 10 MIDWAY 009 10,502 FORSYTH 10 MIDWAY 009 10,502 FORSYTH 16 OTWELL 007 17,755 FORSYTH 16 OTWELL 007 10,31 FULTON CP051 005 6,881 FULTON CP051 005 6,810 GWINNETT BERKSHIRE J 007	DEKALB	WINNONA PARK ELEM (DEC)	004	5
EFFINGHAM 1B 001 2.671 EFFINGHAM 1B 012 1.400 EFFINGHAM 4B 011 933 EFFINGHAM 4B 012 1.503 EFFINGHAM 4B 012 1.503 EFFINGHAM 4B 013 993 FAYETTE DOGWOOD 003 4.239 FAYETTE SANDY CREEK 013 1.486 FAYETTE SANDY CREEK 013 0 FAYETTE WILLOW POND 003 3.568 FAYETTE WILLOW POND 003 3.568 FAYETTE WILLOW POND 003 3.568 FAYETTE WILLOW POND 003 4.222 FORSYTH 10 BROWNS BRIDGE 007 6.222 FORSYTH 10 HIDWAY 007 17,803 FORSYTH 16 OTWELL 009 1.052 FORSYTH 16 HEARDSVILLE 009 1.052 FULTON CP051 013 1.999	DEKALB	WINNONA PARK ELEM (DEC)	005	2.430
EFFINGHAM IB 012 1,400 EFFINGHAM 4B 001 933 FAYETTE DOGWOOD 003 2,259 FAYETTE DOGWOOD 013 993 FAYETTE SANDY CREEK 003 4,493 FAYETTE SANDY CREEK 013 1,486 FAYETTE WILLOW POND 003 3,568 FAYETTE WILLOW POND 013 00 FORSYTH 03 BROWNS BRIDGE 007 6,222 FORSYTH 10 MIDWAY 009 5,685 FORSYTH 10 MIDWAY 009 49 FORSYTH 10 HIDWAY 009 1,050 FORSYTH 15 HEARDSVILLE 007 1,755 FORSYTH 16 OTWELL 007 1,1755 FORSYTH 16 OTWELL 007 0,050 FULTON CP051 005 1,965 FULTON EP04 005 6,810 FULTON EP04 007 0 <td>EFFINGHAM</td> <td>1B</td> <td>001</td> <td>2.671</td>	EFFINGHAM	1B	001	2.671
EFFINGHAM 4B 001 933 EFFINGHAM 4B 012 1,503 FAYETTE DOGWOOD 003 2,259 FAYETTE SANDY CREEK 013 1,493 FAYETTE SANDY CREEK 013 1,486 FAYETTE WILLOW POND 013 0 FAYETTE WILLOW POND 013 0 FORSYTH 03 BROWNS BRIDGE 007 6,222 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 16 MIDWAY 007 11,7803 FORSYTH 16 OTWELL 009 3,205 FULTON CP051 003 1,355 FULTON CP04 005 6,810 GWINNETT BERKSHIRE J 007 3 GWINNETT BERKSHIRE J 007 0 GWINNETT DUNCANS D 001 1,130 GWINNETT DUNCANS D 001 1,130 <td>EFFINGHAM</td> <td>1B</td> <td>012</td> <td>1.400</td>	EFFINGHAM	1B	012	1.400
EFFINGHAM 4B 012 1,503 FAYETTE DOGWOOD 003 2,259 FAYETTE DOGWOOD 013 993 FAYETTE SANDY CREEK 003 4,493 FAYETTE WILLOW POND 003 3,568 FAYETTE WILLOW POND 003 3,568 FAYETTE WILLOW POND 003 3,568 FORSYTH 03 BROWNS BRIDGE 007 6,222 FORSYTH 10 MIDWAY 009 49 FORSYTH 10 MIDWAY 009 10,502 FORSYTH 16 OTWELL 007 17,783 FORSYTH 16 OTWELL 007 11,755 FORSYTH 16 OTWELL 007 10,13 FULTON CP051 013 1,999 GWINNETT BERSHIRE J 004 3,319 GWINNETT DUNCANS D 001 4,3515 GWINNETT DUNCANS D 001 2,710 LOWNDES NAYLOR 001	EFFINGHAM	4B	001	933
FAYETTE DOGWODD 003 2,259 FAYETTE DOGWODD 013 993 FAYETTE SANDY CREEK 003 4,493 FAYETTE SANDY CREEK 013 1,486 FAYETTE WILLOW POND 013 0 FORSYTH 03 BROWNS BRIDGE 007 6,222 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 15 HEARDSVILLE 009 49 FORSYTH 16 OTWELL 007 10,502 FORSYTH 16 OTWELL 009 1,3205 FULTON CP051 005 1,465 FULTON CP051 005 6,810 FULTON EP04 003 3,319 GWINNETT BERKSHIRE J 007 0 GWINNETT BERKSHIRE J 007 0 GWINNETT DUNCANS D 001 4,531 GWINNETT DUNCANS D 010 2,	EFFINGHAM	4B	012	1.503
FAYETTE DOGWODD 013 993 FAYETTE SANDY CREEK 013 1.486 FAYETTE SANDY CREEK 013 1.486 FAYETTE WILLOW POND 003 3.568 FAYETTE WILLOW POND 013 0 FORSYTH 03 BROWNS BRIDGE 007 6.222 FORSYTH 10 MIDWAY 009 5.685 FORSYTH 10 MIDWAY 009 49 FORSYTH 15 HEARDSVILLE 007 17.803 FORSYTH 15 HEARDSVILLE 007 11.755 FORSYTH 16 OTWELL 007 11.755 FORSYTH 16 OTWELL 007 11.755 FULTON CP051 005 1.965 FULTON CP051 005 6.810 GWINNETT BERKSHIRE J 004 3.319 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 010 6.851 GWINNETT DUNCANS D 010 <td>FAYETTE</td> <td>DOGWOOD</td> <td>003</td> <td>2.259</td>	FAYETTE	DOGWOOD	003	2.259
FAYETTE SANDY CREEK 003 4,493 FAYETTE SANDY CREEK 013 1,486 FAYETTE WILLOW POND 003 3,558 FAYETTE WILLOW POND 013 0 FORSYTH 03 BROWNS BRIDGE 007 6,222 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 10 MIDWAY 007 7 FORSYTH 15 HEARDSVILLE 007 7 FORSYTH 16 OTWELL 009 3,205 FULTON CP051 003 1,965 FULTON CP04 005 6,810 FULTON EP04 007 0 GWINNETT BERKSHIRE J 007 0 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 001 4,3319 GWINNETT DUNCANS D 001 2,777 HENRY UNITY GROVE 001 2,777 </td <td>FAYETTE</td> <td>DOGWOOD</td> <td>013</td> <td>993</td>	FAYETTE	DOGWOOD	013	993
FAYETTE SANDY CREEK 013 1,486 FAYETTE WILLOW POND 003 3,568 FAYETTE WILLOW POND 013 0 FORSYTH 03 BROWNS BRIDGE 007 6,222 FORSYTH 03 BROWNS BRIDGE 009 5,685 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 15 HEARDSVILLE 007 7 FORSYTH 15 HEARDSVILLE 007 11,755 FORSYTH 16 OTWELL 007 11,755 FORSYTH 16 OTWELL 009 3,205 FULTON CP051 013 1,565 FULTON CP051 013 1,999 GWINNETT BERKSHIRE J 007 0 GWINNETT DERKSHIRE J 007 0 GWINNETT DUNCANS D 007 834 GWINNETT DUNCANS D 010 6,810 GWINNETT DUNCANS D 010 2,710 LOWNDES NAYLOR 001 </td <td>FAYETTE</td> <td>SANDY CREEK</td> <td>003</td> <td>4,493</td>	FAYETTE	SANDY CREEK	003	4,493
FAYETTE WILLOW POND 003 3.568 FAYETTE WILLOW POND 013 0 FORSYTH 03 BROWNS BRIDGE 007 6.222 FORSYTH 03 BROWNS BRIDGE 007 17,803 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 10 MIDWAY 007 7 FORSYTH 15 HEARDSVILLE 009 10,502 FORSYTH 16 OTWELL 007 11,755 FORSYTH 16 OTWELL 009 3,205 FULTON CP051 005 1,965 FULTON CP051 005 6,810 FULTON EP04 013 1,999 GWINNETT BERKSHIRE J 007 0 GWINNETT DUNCANS D 007 834 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 001 2,711 LOWNDES NAYLOR 001 2,711 LOWNDES NAYLOR 003 7,	FAYETTE	SANDY CREEK	013	1,486
FAYETTE WILLOW POND 013 0 FAYETTE WILLOW POND 013 0 FORSYTH 03 BROWNS BRIDGE 007 6,222 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 10 MIDWAY 009 49 FORSYTH 15 HEARDSVILLE 007 7 FORSYTH 15 HEARDSVILLE 009 10,502 FORSYTH 16 OTWELL 007 11,755 FORSYTH 16 OTWELL 005 1,965 FULTON CP051 013 15 FULTON CP051 013 1,999 GWINNETT BERKSHIRE J 004 3,319 GWINNETT CATES D 007 0 GWINNETT DUNCANS D 010 6,831 GWINNETT DUNCANS D 010 6,831 GWINNETT DUNCANS D 010 2,777 HENRY UNITY GROVE 003 2,777 HENRY UNITY GROVE 003 <t< td=""><td>FAYETTE</td><td>WILLOW POND</td><td>003</td><td>3 568</td></t<>	FAYETTE	WILLOW POND	003	3 568
FORSYTH 03 BROWNS BRIDGE 007 6,222 FORSYTH 03 BROWNS BRIDGE 007 17,803 FORSYTH 10 MIDWAY 009 49 FORSYTH 10 MIDWAY 009 49 FORSYTH 15 HEARDSVILLE 007 7 FORSYTH 15 HEARDSVILLE 007 11,755 FORSYTH 16 OTWELL 007 11,755 FORSYTH 16 OTWELL 009 3,205 FULTON CP051 005 1,965 FULTON EP04 005 6,810 FULTON EP04 007 0 GWINNETT BERKSHIRE J 007 0 GWINNETT DUNCANS D 007 834 GWINNETT DUNCANS D 007 834 GWINNETT DUNCANS D 001 6,851 HENRY UNITY GROVE 003 2,777 HENRY UNITY GROVE 003 2,777 HENRY UNITY GROVE 001 4	FAYETTE	WILLOW POND	013	0,500
FORSYTH 03 BROWNS BRIDGE 009 5,685 FORSYTH 10 MIDWAY 007 17,803 FORSYTH 10 MIDWAY 009 49 FORSYTH 15 HEARDSVILLE 007 7 FORSYTH 15 HEARDSVILLE 007 11,755 FORSYTH 16 OTWELL 009 3,205 FULTON CP051 005 1,965 FULTON CP051 013 15 FULTON EP04 013 1,999 GWINNETT BERKSHIRE J 004 3,319 GWINNETT DERKSHIRE J 007 0 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 010 6,851 HENRY UNITY GROVE 003 2,777 HENRY UNITY GROVE 010 2,110 LOWNDES NAYLOR 001 1,130 LOWNDES TRINITY 008 13,127 MUSCOGEE FPWORTH UMC 002 3,2	FORSYTH	03 BROWNS BRIDGE	007	6 222
FORSYTH 10 MIDWAY 007 17,803 FORSYTH 10 MIDWAY 009 49 FORSYTH 15 HEARDSVILLE 007 7 FORSYTH 15 HEARDSVILLE 007 1,758 FORSYTH 16 OTWELL 009 3,205 FORSYTH 16 OTWELL 007 11,755 FORSYTH 16 OTWELL 007 11,755 FORSYTH 16 OTWELL 007 11,755 FORSYTH 16 OTWELL 003 1,965 FULTON CP051 013 15 FULTON EP04 003 1,319 GWINNETT BERKSHIRE J 004 3,515 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 010 6,831 GWINNETT DUNCANS D 010 2,777 HENRY UNITY GROVE 003 2,777 LOWNDES NAYLOR 001 4,384<	FORSYTH	03 BROWNS BRIDGE	009	5 685
No.50111 No.50111 No.50111 No.50111 No.50111 FORSYTH 10 MIDWAY 009 49 FORSYTH 15 HEARDSVILLE 007 7 FORSYTH 16 OTWELL 007 11,755 FORSYTH 16 OTWELL 009 3,205 FULTON CP051 005 1,965 FULTON CP051 005 6,810 FULTON EP04 003 1,999 GWINNETT BERKSHIRE J 004 3,515 GWINNETT CATES D 004 3,519 GWINNETT CATES D 004 3,515 GWINNETT DUNCANS D 004 3,515 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 0007 834 GWINNETT DUNCANS D 010 2,710 LOWNDES NAYLOR 001 4,538 LOWNDES TRINITY 001 4,538 LOWNDES TRINITY 001 <td>FORSYTH</td> <td>10 MIDWAY</td> <td>007</td> <td>17 803</td>	FORSYTH	10 MIDWAY	007	17 803
ONSTRUCT DOTATION	FORSYTH	10 MIDWAY	009	49
No.50111 IS HEARDSVILLE 009 10,502 FORSYTH 16 OTWELL 007 11,755 FORSYTH 16 OTWELL 009 3,205 FULTON CP051 005 1,965 FULTON CP051 013 15 FULTON EP04 005 6,810 FULTON EP04 013 1,999 GWINNETT BERKSHIRE J 004 3,319 GWINNETT CATES D 004 3,515 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 010 6,851 HENRY UNITY GROVE 003 2,777 HENRY UNITY GROVE 010 2,110 LOWNDES NAYLOR 008 539 LOWNDES TRINITY 001 4,538 LOWNDES TRINITY 003 2,427 MUSCOGEE EPWORTH UMC 003 2,181 NEWTON ALCOVY 004 4,868	FORSYTH	15 HEARDSVILLE	007	7
No.5111 IS HERDE TO THE IS	FORSYTH	15 HEARDSVILLE	009	10 502
FORSYTH 16 OTWELL 0009 3,205 FULTON CP051 005 1,965 FULTON CP051 013 15 FULTON EP04 005 6,810 FULTON EP04 003 6,810 FULTON EP04 003 1,999 GWINNETT BERKSHIRE J 004 3,319 GWINNETT CATES D 004 3,515 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 010 6,851 HENRY UNITY GROVE 003 2,770 LOWNDES NAYLOR 001 1,130 LOWNDES NAYLOR 001 1,130 LOWNDES TRINITY 001 4,538 LOWNDES TRINITY 003 7,482 MUSCOGEE EPWORTH UMC 003 7,482 MUSCOGEE ST PAUL/CLUBVIEW 003 2,141 <t< td=""><td>FORSYTH</td><td>16 OTWELL</td><td>007</td><td>11 755</td></t<>	FORSYTH	16 OTWELL	007	11 755
FULTON CP051 005 1,965 FULTON CP051 013 15 FULTON EP04 005 6,810 FULTON EP04 013 1,999 GWINNETT BERKSHIRE J 007 0 GWINNETT BERKSHIRE J 007 0 GWINNETT CATES D 004 3,515 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 010 6,851 HENRY UNITY GROVE 010 2,710 LOWNDES NAYLOR 001 1,130 LOWNDES NAYLOR 001 4,538 LOWNDES TRINITY 008 13,127 MUSCOGEE EPWORTH UMC 002 3,2477 MUSCOGEE ST PAUL/CLUBVIEW 003 2,247 MUSCOGEE ST PAUL/CLUBVIEW 003 2,247 MUSCOGEE ST PAUL/CLUBVIEW 003 2,141 </td <td>FORSYTH</td> <td>16 OTWELL</td> <td>009</td> <td>3.205</td>	FORSYTH	16 OTWELL	009	3.205
FULTON CP051 013 15 FULTON EP04 005 6,810 FULTON EP04 013 1,999 GWINNETT BERKSHIRE J 004 3,319 GWINNETT BERKSHIRE J 007 0 GWINNETT CATES D 004 3,515 GWINNETT CATES D 007 834 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 010 6,851 HENRY UNITY GROVE 003 2,777 HENRY UNITY GROVE 010 2,710 LOWNDES NAYLOR 001 1,130 LOWNDES TRINITY 001 4,538 LOWNDES TRINITY 008 13,127 MUSCOGEE EPWORTH UMC 002 3,247 MUSCOGEE ST PAUL/CLUBVIEW 003 2,818 MUSCOGEE ST PAUL/CLUBVIEW 002 5,247 MUSCOGEE ST PAUL/CLUBVIEW 003 <t< td=""><td>FULTON</td><td>CP051</td><td>005</td><td>1.965</td></t<>	FULTON	CP051	005	1.965
FULTON EP04 005 6.810 FULTON EP04 013 1,999 GWINNETT BERKSHIRE J 004 3,319 GWINNETT BERKSHIRE J 007 0 GWINNETT CATES D 007 834 GWINNETT CATES D 007 0 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 010 6.851 HENRY UNITY GROVE 003 2,777 HENRY UNITY GROVE 001 1,130 LOWNDES NAYLOR 001 1,130 LOWNDES NAYLOR 001 4,538 LOWNDES TRINITY 001 4,538 LOWNDES TRINITY 002 5,247 MUSCOGEE EPWORTH UMC 003 2,181 NUSCOGEE ST PAUL/CLUBVIEW 002 5,247 MUSCOGEE ST PAUL/CLUBVIEW 003 2,181 NEWTON ALCOVY 004 4,868 NEWTON ALCOVY 010 526 NEW	FULTON	CP051	013	15
FULTON EPO4 013 1,999 GWINNETT BERKSHIRE J 004 3,319 GWINNETT BERKSHIRE J 007 0 GWINNETT BERKSHIRE J 007 0 GWINNETT CATES D 004 3,515 GWINNETT CATES D 007 834 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 010 6,851 HENRY UNITY GROVE 010 2,717 HENRY UNITY GROVE 010 2,710 LOWNDES NAYLOR 001 1,130 LOWNDES NAYLOR 008 539 LOWNDES TRINITY 001 4,538 LOWNDES TRINITY 002 3,14 MUSCOGEE EPWORTH UMC 002 5,247 MUSCOGEE ST PAUL/CLUBVIEW 003 2,181 MUSCOGEE ST PAUL/CLUBVIEW 003 2,1	FULTON	EP04	005	6.810
GWINNETT BERKSHIRE J 004 3,319 GWINNETT BERKSHIRE J 007 0 GWINNETT CATES D 004 3,515 GWINNETT CATES D 007 834 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 007 834 GWINNETT DUNCANS D 010 6,851 HENRY UNITY GROVE 003 2,777 HENRY UNITY GROVE 010 2,710 LOWNDES NAYLOR 001 1,130 LOWNDES NAYLOR 001 4,538 LOWNDES TRINITY 001 4,538 LOWNDES TRINITY 003 7,482 MUSCOGEE EPWORTH UMC 002 5,247 MUSCOGEE ST PAUL/CLUBVIEW 003 2,181 NEWTON ALCOVY 004 4,868 NEWTON ALCOVY 004 4,863 NEWTON ALCOVY 010 526	FULTON	EP04	013	1 999
GWINNETT BERKSHIRE J 007 0 GWINNETT CATES D 004 3,515 GWINNETT CATES D 007 834 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 010 6,851 HENRY UNITY GROVE 003 2,777 HENRY UNITY GROVE 010 2,710 LOWNDES NAYLOR 001 1,130 LOWNDES NAYLOR 001 4,538 LOWNDES TRINITY 008 539 LOWNDES TRINITY 008 13,127 MUSCOGEE EPWORTH UMC 002 314 MUSCOGEE ST PAUL/CLUBVIEW 003 2,181 NEWTON ALCOVY 004 4,868 NEWTON ALCOVY 010 526 NEWTON ROCKY PLAINS 004 583 NEWTON ROCKY PLAINS 004 4,867 NEWTON ROCKY PLAINS 009 1,074	GWINNETT	BERKSHIRE J	004	3.319
GWINNETT CATES D 004 3,515 GWINNETT CATES D 007 834 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 010 6,851 HENRY UNITY GROVE 003 2,777 HENRY UNITY GROVE 010 2,710 LOWNDES NAYLOR 001 1,130 LOWNDES NAYLOR 001 4,538 LOWNDES TRINITY 008 539 LOWNDES TRINITY 008 13,127 MUSCOGEE EPWORTH UMC 002 3,14 MUSCOGEE ST PAUL/CLUBVIEW 003 2,181 NEWTON ALCOVY 004 4,868 NEWTON ALCOVY 004 533 NEWTON ROCKY PLAINS 010 4,057 PICKENS TATE 009 1,074	GWINNETT	BERKSHIRE J	007	0
GWINNETT CATES D 007 834 GWINNETT DUNCANS D 007 0 GWINNETT DUNCANS D 010 6,851 HENRY UNITY GROVE 003 2,777 HENRY UNITY GROVE 010 2,710 LOWNDES NAYLOR 001 1,130 LOWNDES NAYLOR 001 4,538 LOWNDES TRINITY 008 539 LOWNDES TRINITY 001 4,538 LOWNDES TRINITY 003 7,482 MUSCOGEE EPWORTH UMC 002 314 MUSCOGEE ST PAUL/CLUBVIEW 003 2,181 NEWTON ALCOVY 004 4,868 NEWTON ALCOVY 004 583 NEWTON ROCKY PLAINS 004 583 NEWTON ROCKY PLAINS 010 4,057 PICKENS TATE 014 2,144	GWINNETT	CATES D	004	3.515
GWINNETTDUNCANS D0070GWINNETTDUNCANS D0106,851HENRYUNITY GROVE0032,777HENRYUNITY GROVE0102,710LOWNDESNAYLOR0011,130LOWNDESNAYLOR008539LOWNDESTRINITY0014,538LOWNDESTRINITY00813,127MUSCOGEEEPWORTH UMC002314MUSCOGEEST PAUL/CLUBVIEW0032,181NEWTONALCOVY0044,868NEWTONALCOVY010526NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074	GWINNETT	CATES D	007	834
GWINNETT DUNCANS D 010 6,851 HENRY UNITY GROVE 003 2,777 HENRY UNITY GROVE 010 2,710 LOWNDES NAYLOR 001 1,130 LOWNDES NAYLOR 001 1,130 LOWNDES TRINITY 008 539 LOWNDES TRINITY 001 4,538 LOWNDES TRINITY 008 13,127 MUSCOGEE EPWORTH UMC 002 314 MUSCOGEE EPWORTH UMC 003 7,482 MUSCOGEE ST PAUL/CLUBVIEW 002 5,247 MUSCOGEE ST PAUL/CLUBVIEW 003 2,181 NEWTON ALCOVY 004 4,868 NEWTON ALCOVY 010 526 NEWTON ROCKY PLAINS 010 4,057 PICKENS TATE 009 1,074 PICKENS TATE 014 2	GWINNETT	DUNCANS D	007	0
OWNERT DOUTO GROVE OU3 2,777 HENRY UNITY GROVE 010 2,710 LOWNDES NAYLOR 010 2,710 LOWNDES NAYLOR 001 1,130 LOWNDES NAYLOR 001 4,538 LOWNDES TRINITY 008 539 LOWNDES TRINITY 008 13,127 MUSCOGEE EPWORTH UMC 002 314 MUSCOGEE EPWORTH UMC 003 7,482 MUSCOGEE ST PAUL/CLUBVIEW 002 5,247 MUSCOGEE ST PAUL/CLUBVIEW 003 2,181 NEWTON ALCOVY 004 4,868 NEWTON ALCOVY 010 526 NEWTON ROCKY PLAINS 010 4,057 PICKENS TATE 009 1,074 PICKENS TATE 014 2	GWINNETT	DUNCANS D	010	6.851
HENRY UNITY GROVE 010 2,710 LOWNDES NAYLOR 001 1,130 LOWNDES NAYLOR 008 539 LOWNDES TRINITY 001 4,538 LOWNDES TRINITY 008 13,127 MUSCOGEE EPWORTH UMC 002 314 MUSCOGEE EPWORTH UMC 003 7,482 MUSCOGEE ST PAUL/CLUBVIEW 002 5,247 MUSCOGEE ST PAUL/CLUBVIEW 003 2,181 NEWTON ALCOVY 004 4,868 NEWTON ALCOVY 010 526 NEWTON ROCKY PLAINS 004 583 NEWTON ROCKY PLAINS 010 4,057 PICKENS TATE 009 1,074 PICKENS TATE 014 2,144	HENRY	UNITY GROVE	003	2.777
LOWNDESNAYLOR0011,130LOWNDESNAYLOR008539LOWNDESTRINITY0014,538LOWNDESTRINITY00813,127MUSCOGEEEPWORTH UMC002314MUSCOGEEEPWORTH UMC0037,482MUSCOGEEST PAUL/CLUB VIEW0025,247MUSCOGEEST PAUL/CLUB VIEW0032,181NEWTONALCOVY0044,868NEWTONALCOVY010526NEWTONROCKY PLAINS004583NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074PICKENSTATE0142,144	HENRY	UNITY GROVE	010	2.710
LOWNDESNAYLOR008539LOWNDESTRINITY0014,538LOWNDESTRINITY00813,127MUSCOGEEEPWORTH UMC002314MUSCOGEEEPWORTH UMC0037,482MUSCOGEEST PAUL/CLUBVIEW0025,247MUSCOGEEST PAUL/CLUBVIEW0032,181NEWTONALCOVY0044,868NEWTONALCOVY010526NEWTONROCKY PLAINS004583NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074PICKENSTATE0142,144	LOWNDES	NAYLOR	001	1.130
LOWNDESTRINITY0014,538LOWNDESTRINITY00813,127MUSCOGEEEPWORTH UMC002314MUSCOGEEEPWORTH UMC0037,482MUSCOGEEST PAUL/CLUBVIEW0025,247MUSCOGEEST PAUL/CLUBVIEW0032,181NEWTONALCOVY0044,868NEWTONALCOVY010526NEWTONROCKY PLAINS004583NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074PICKENSTATE0142,144	LOWNDES	NAYLOR	008	539
LOWNDESTRINITY0011,001LOWNDESTRINITY00813,127MUSCOGEEEPWORTH UMC002314MUSCOGEEEPWORTH UMC0037,482MUSCOGEEST PAUL/CLUBVIEW0025,247MUSCOGEEST PAUL/CLUBVIEW0032,181NEWTONALCOVY0044,868NEWTONALCOVY010526NEWTONROCKY PLAINS004583NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074PICKENSTATE0142,144	LOWNDES	TRINITY	001	4.538
MUSCOGEEEPWORTH UMC002314MUSCOGEEEPWORTH UMC0037,482MUSCOGEEST PAUL/CLUBVIEW0025,247MUSCOGEEST PAUL/CLUBVIEW0032,181NEWTONALCOVY0044,868NEWTONALCOVY010526NEWTONROCKY PLAINS004583NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074PICKENSTATE0142,144	LOWNDES	TRINITY	008	13.127
MUSCOGEEEPWORTH UMC0037,482MUSCOGEEST PAUL/CLUBVIEW0025,247MUSCOGEEST PAUL/CLUBVIEW0032,181NEWTONALCOVY0044,868NEWTONALCOVY010526NEWTONROCKY PLAINS004583NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074PICKENSTATE0142,144	MUSCOGEE	EPWORTH UMC	002	314
MUSCOGEEST PAUL/CLUBVIEW0025,247MUSCOGEEST PAUL/CLUBVIEW0032,181NEWTONALCOVY0044,868NEWTONALCOVY010526NEWTONROCKY PLAINS004583NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074PICKENSTATE0142,144	MUSCOGEE	EPWORTH UMC	003	7.482
MUSCOGEEST PAUL/CLUBVIEW0032,181NEWTONALCOVY0044,868NEWTONALCOVY010526NEWTONROCKY PLAINS004583NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074PICKENSTATE0142,144	MUSCOGEE	ST PAUL/CLUBVIEW	002	5.247
NEWTONALCOVY0044,868NEWTONALCOVY010526NEWTONROCKY PLAINS004583NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074PICKENSTATE0142,144	MUSCOGEE	ST PAUL/CLUBVIEW	003	2.181
NEWTONALCOVY010526NEWTONROCKY PLAINS004583NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074PICKENSTATE0142,144	NEWTON	ALCOVY	004	4.868
NEWTONROCKY PLAINS004583NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074PICKENSTATE0142,144	NEWTON	ALCOVY	010	526
NEWTONROCKY PLAINS0104,057PICKENSTATE0091,074PICKENSTATE0142,144	NEWTON	ROCKY PLAINS	004	583
PICKENS TATE 009 1,074 PICKENS TATE 014 2 144	NEWTON	ROCKY PLAINS	010	4.057
PICKENS TATE 014 2.144	PICKENS	TATE	009	1.074
	PICKENS	TATE	014	2.144
2011 Plan -- Statewide Municipal Splits

	Number		
	of	Total Pop. Of	
Municipal Splits	Districts	Municipality	
Adrian	2	664	
Athens-Clarke County	2	115,452	
Atlanta	2	420,003	
Belvedere Park	2	15,152	
Braselton	2	7,511	
Bremen	2	6,227	
Buford	2	12,225	
Candler-McAfee	2	23,025	
College Park	2	13,942	
Columbus	2	189,885	
Decatur	2	19,335	
East Point	2	33,712	
Evans	2	29,011	
Fair Oaks	2	8,225	
Fayetteville	2	15,945	COM
Hampton	2	6,987	<u>, </u>
Harlem	2	2,666	\sim
Helena	2	2,883	
Jasper	2	3,684	
Lilburn	2	11,596	
Loganville	3	10,458	
Macon	2	91,351	
Manchester	2	⁰ ⁴ ,230	
Marietta	2	56,579	
McDonough	2	22,084	
Meigs	2	1,035	
Morrow	2	6,445	
Mountain Park	3	12,101	
Nelson	2	1,314	
North Atlanta	2	40,456	
North Druid Hills	2	18,947	
Palmetto	2	4,488	
Panthersville	2	9,749	
Perry	2	13,839	
Rest Haven	2	62	
Sandy Springs	2	93,853	
Scotland	2	366	
Smyrna	2	51,271	
Snellville	2	18,242	
Stockbridge	2	25,636	
Taylorsville	2	210	
Tucker	2	27,581	
Villa Rica	2	13,956	
Warner Robins	2	66,588	

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1	use in your report.
2	The first redistricting well, so
3	you your report talks about redistricting
4	criteria, and then it also discusses redistricting
5	principles.
6	Are you familiar with contiguity as a
7	redistricting principle?
8	A. Yes.
9	Q. Can you describe what that means?
10	A. What contiguity means?
11	Q. Yes.
12	A. Contiguity is that all parts of a
13	district touch themselves. You don't have a
14	separate island.
15	Q. What about compactness, can you describe
16	what that means?
17	A. Compactness is a measure of how let's
18	see how best to describe this. A lot of times it's
19	in the eye of the beholder. But it's the shape of
20	the district in terms of how close to a, maybe a
21	center point, I guess you could say, it is.
22	It's a little bit different difficult
21 22	center point, I guess you could say, it is. It's a little bit different difficult

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	Page 11	L9
1	population above 50 percent?	
2	A. Did I look at the number of districts	
3	that had over 50 percent voting age population?	
4	Q. In Bill Cooper's plan.	
5	A. I believe so. But his he only	
6	modified part of an existing plan, so several of	
7	those districts were already drawn. So he only	
8	modified in one area.	
9	Q. Did Bill Cooper's plan increase the	
10	number of districts that had voting age	
11	African-American voting age population at	
12	50 percent or over?	
13	A. If you are using the 50 percent threshold	
14	and only the V.A.P., then yes.	
15	Q. Would you mind reading number two in that	
16	list in the first paragraph of your report?	
17	A. "Whether Bill Cooper's plans follow	
18	traditional redistricting principles."	
19	Q. And we've talked about redistricting	
20	principles before. When you reviewed Bill Cooper's	
21	plans, what did you look at precisely to determine	
22	whether, for instance, Mr. Cooper minimized the	

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1	population.	
2	And when an African-American populat	cion
3	makes up the majority of these counties, that	means
4	that these are counties that are run by, you	know,
5	African-American, you know, majority. They h	nave
6	their elected officials and their boards and	all
7	that. So there's things those things to	
8	consider as well.	
9	Q. I understand your position that the	
10	communities in southwest Georgia are a lot	t of
11	them have high African-American populations a	and
12	they're grouped together. Now let's move on	to the
13	African-American communities within the propo	osed
14	C.D. 12 in Bill Cooper's plans.	
15	And I want to ask you how you determ	mined,
16	what factors allowed you to determine that the	ne
17	African-American population in those communit	cies
18	within the proposed C.D. 12 are not sufficier	ntly
19	compact.	
20	And accepting your point that the	
21	African-American communities in southwest Geo	orgia
22	are compact, we'll just accept that as a give	en,

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1	what factors led you to conclude that the
2	African-American communities within Bill Cooper's
3	proposed C.D. 12 are not sufficiently compact?
4	A. I don't know that I say they are
5	completely not, but they are less compact than what
6	you find for the District 2 area.
7	And in his plan, as we mentioned there,
8	the county using Bibb County as the pivot point,
9	without Bibb being added to that district, then he
10	wouldn't be able to meet those percentages that he
11	does.
12	Which Bibb bordering directly beside the
13	counties that make up Congressional District 2,
14	it's a logical conclusion that it would be added
15	there into the community, as we talked about
16	before, not to reduce that, but to at least
17	maintain, and in this case even increase a slight
18	bit, that majority percentage.
19	So I think it's a determination and which
20	is the better option. Because one, you're going
21	if you create this district that he does, then you
22	do reduce the population that you would have in

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1	District 2.
2	So the effect on District 2 is what is
3	significant. You change to create a District 12,
4	then you're going to reduce that population in
5	District 2.
6	And it isn't really to me, and in my
7	opinion, the logical way to create a district in
8	District 12 to connect those three major cities
9	like that. To do that, the reason the only
10	reason I would see that you would do that is if you
11	were only drawing that district with the focus on
12	race.
13	Q. So you're not saying that the
14	African-American population within Bill Cooper's
15	C.D. 12 is not sufficiently compact, you're just
16	saying it's less compact than the African-American
17	population in C.D. 2?
18	A. I'm not denying that there are definitely
19	areas over there that are there are
20	concentrations of African-American population over
21	there.
22	But I'm saying that, yes, there is a

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1	Q. And so it's less compact than what	
2	exactly?	
3	A. Than the current District 12.	
4	Q. And that is the opinion that you are	9
5	offering	
6	A. Yes.	
7	Q in your report?	
8	So you're not offering an opinion th	nat
9	the proposed C.D. 12 in Bill cooper's report	is not
10	compact, you're simply opining that it is les	5 S
11	compact than the current C.D. 12?	
12	A. I'm pretty sure that's what I said :	in my
13	report. But yes, it is less.	
14	Q. Right. But what I want you to conf:	irm if
15	it's true is you're not opining that C.D. 12	in the
16	illustrative plans is not compact, your oping	ion is
17	solely that C.D. 12 is less compact, the	
18	illustrative plan C.D. 12 is less compact that	an the
19	current C.D. 12?	
20	A. Give me one second.	
21	My report says:	
22	"Scores on both the Reock and the	

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		Page 146
1	Polsby-Popper test show illustrative	
2	plan one to be less compact than the	
3	current congressional map, Congress12."	,
4	That's what I stated. That's what	I say.
5	Q. And	
6	A. Does that answer you?	
7	Q. Beyond the fact that the proposed	
8	illustrative C.D. 12 is less compact than the	ie
9	current C.D. 12, do you have any other opini	ons on
10	the compactness of Bill Cooper's illustrativ	ve
11	C.D. 12?	
12	A. No. MDER	
13	Q. I want you to turn to Page 3 of you	ır
14	report. If you could look at the last parage	graph
15	before the History of Georgia Congressional	Maps
16	and Representations section. It starts with	1,
17	"based on my analysis, as discussed below"?	
18	A. Uh-huh.	
19	Q. And there it appears that you summa	arize
20	your analyses and list out some of your	
21	conclusions. And I want to go through those	2
22	individually.	

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	Page 24	44
1	then to point 34 from plan one to plan two.	
2	Q. But the district	
3	A. So I wouldn't	
4	Q is in a different location, so what	
5	why is that the	
6	A. Not really.	
7	Q relevant analysis?	
8	A. I mean, it's still generally in the same	
9	location.	
10	Q. Oh, it is?	
11	A. 12? Yeah.	
12	Q. Okay.	
13	A. His 12 is in the same east central	
14	Georgia that the current 12 is.	
15	Q. Okay.	
16	A. But District 9 is in the mountains. So	
17	you're comparing a district down there to a	
18	district the compactness in the mountains?	
19	Q. In Page 15 on Pages 15 to 16 of your	
20	report, you identify a few neighborhood splits, one	÷
21	in Muscogee County and one in Effingham in the town	L
22	of Guyton.	

United States District Court for the Northern District of Georgia

> Dwight, et al. v. Kemp, No. 1:18-cv-2869-RWS

> > **December 3, 2018**

Expert Report of Maxwell Palmer

Alma Monuell Sal_____ Maxwell Palmer

MAXWELL PALMER submits the following report in accordance with Federal Rule of Civil Procedure 26(a)(2)(B), and Federal Rules of Evidence 702 and 703.

STATEMENT OF INQUIRY

I have been asked to evaluate the extent to which voting is racially polarized in regions in or around central and southeast Georgia, including Georgia's 12th Congressional District ("CD 12") and surrounding Districts 1 ("CD 1"), 8 ("CD 8"), and portions of District 10 ("CD 10"), collectively referred to in this report as the "focus area," under the redistricting plan enacted by the Georgia State Legislature in 2011.

SUMMARY OF ANALYSIS AND FINDINGS

I find strong evidence of racially polarized voting in the 12th Congressional District and its surroundings. African American and white voters consistently support different candidates. In every election I analyzed, the African American-preferred candidate won more than 85% of the African American vote and less than 30% of the white vote.

African American-preferred candidates are largely unable to win elections in the focus area. Across an analysis of seven congressional elections and twelve statewide elections, the African American-preferred candidate was able to win only once.¹

QUALIFICATIONS

I am currently an Assistant Professor of Political Science at Boston University. I joined the faculty at Boston University in 2014, after completing my Ph.D. in Political Science at Harvard University. I teach and conduct research on American politics and political methodology.

¹ The winning candidate, John Barrow, was a white Democrat and a four-term incumbent congressman. He won reelection in CD 12 in 2012 and lost his campaign for reelection in 2014.

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I have published academic work in leading peer-reviewed academic journals, including *The American Political Science Review*, *The Journal of Politics*, and *Perspectives on Politics*. I have published work on compactness in redistricting in *The Ohio State University Law Review* and on traditional redistricting principles in *The Journal of Politics*. My curriculum vitae is attached to this report. My published research uses a variety of analytical approaches, including statistics, geographic analysis, and simulations.

I have served as an expert witness or litigation consultant on numerous cases involving the Voting Rights Act, including redistricting, voter identification, and early voting. I testified before the U.S. District Court for the Eastern District of Virginia as an expert in "redistricting and data analysis as it pertains to redistricting" in *Bethune Hill v. Virginia* (3:14-cv-00852-REP-AWA-BMK). I worked as a data analyst assisting testifying experts in multiple cases concerning congressional and state legislative districting, including: *Perez v. Perry*, in the U.S. District Court for the Western District of Texas (No. 5:11-ev-00360); *LULAC v. Edwards Aquifer Authority* in the U.S. District Court for the Western District of Texas, San Antonio Division (No. 5:12cv620-OLG,); *Harris v. McCrory* in the U.S. District Court for the Middle District of North Carolina (No. 1:2013cv00949); *Guy v. Miller* in the U.S. District Court for Nevada (No. 11-OC-00042-1B); *In re Senate Joint Resolution of Legislative Apportionment* in the Florida Supreme Court (Nos. 2012-CA-412, 2012-CA-490); and *Romo v. Detzner* in the Circuit Court of the Second Judicial Circuit in Florida (No. 2012 CA 412).

I am being compensated at my usual rate of \$350/hour for my work in this case.

DATA & METHODOLOGY

I relied on the following primary data sources for this report: (1) precinct-level election results, voter registration, and voter history files provided by the Georgia Secretary of State. Voter

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registration and turnout files also include demographic information based on voters' self-identified race when registering to vote.; (2) legislative district maps from the Georgia Legislative and Congressional Reapportionment Office and election results from the Georgia Secretary of State, used to identify the district for each precinct when necessary; and (3) a list of candidates for congressional and statewide elections from 2012 through 2016 published by the Georgia Secretary of State.

In all of the analyses below, I analyzed racially polarized voting using three demographic groups: African Americans, whites, and other. The "other" group includes self-identified Hispanics, Asians, Native Americans, voters of other races, and voters whose race is unknown.² For the purpose of my analysis, I examined elections within the focus area—regions in and around CD 12—defined as follows:

- All counties either partially or entirely within CDs 1, 8, and 12;
- The following counties from CD 10: Baldwin, Glascock, Greene, Hancock, Jefferson, Johnson, Lincoln, McDuffie, Putnam, Taliaferro, Warren, Washington, Wilkes and Columbia counties. I excluded from my analysis of this area the eight counties in CD 10 that are part of the Atlanta MSA (Barrow, Butts, Gwinnett, Henry, Jasper, Morgan, Newton, and Walton) and the 3 counties in CD 10 that are part of the Atlanta CD 10 that are part of the Atlanta MSA (Clarke, Oconee, and Oglethorpe).

Figure 1 of this report maps the focus area. The shaded portions of Figure 1 show the counties and congressional districts included in my analysis, and the solid black line marks the full boundary of each congressional district.

 $^{^{2}}$ In 2016, voters in the "other" group made up 11.5% of the statewide electorate and 7.1% of the focus area electorate.

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To analyze racially polarized voting in the focus area, I examined precinct-level election results from the 2012, 2014, and 2016 general elections. I included elections for U.S. Congress (endogenous elections), and statewide elections (exogenous).³

In analyzing racially polarized voting in each election, I used a statistical procedure, ecological inference (EI), that estimates group-level preferences based on aggregate data. While the primary focus of this analysis is on racially polarized voting between African American and white voters, I also added a third group, "other," which includes Hispanics, Asians, Native Americans, and voters who did not identify their race when registering to vote, in the analysis. I excluded third party candidates and analyzed votes for the two major-party candidates in each election.⁴ The results of this analysis are estimates of the percentage of each group (African Americans, whites, and others) that voted for each candidate in each election. The results include both a mean estimate (the most likely vote share), and a 95% confidence interval.⁵

RESULTS

Interpreting the results of the ecological inference models proceeds in two general stages. First, I examined the support for each candidate by each demographic group to determine if members of the group vote cohesively in support of a single candidate. When a large majority of

³ The statewide elections analyzed include elections for U.S. President, U.S. Senate, Governor, Lieutenant Governor, Secretary of State, Attorney General, Commissioner of Agriculture, Commissioner of Insurance, Commissioner of Labor, and School Superintendent.

⁴ Including third party candidates does not substantially change the results or affect my findings.

⁵ The 95% confidence interval is a measure of uncertainty in the estimates from the model. For example, the model might estimate that 94% of the members of a group voted for a particular candidate, with a 95% confidence interval of 91-96%. This means that based on the data and the model assumptions, we can be 95% confident that the true level of support is in the range of 91-96%, with 94% being the most likely value. Larger confidence intervals reflect a higher degree of uncertainty in the estimates, while smaller confidence intervals reflect less uncertainty.

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the group supports a single candidate, I can then identify that candidate as the group's "candidate of choice." If the group's support is roughly evenly divided between the two candidates, then the group does not cohesively support a single candidate and there is not an identifiable candidate of choice. Second, after identifying the candidate of choice for each group (or the lack of such a candidate), I then compared the preferences of African American and white voters. When African American and white voters share the same candidate of choice, or when one or both groups do not have an identifiable candidate of choice, then voting is not polarized. When African American and white candidates have different candidates of choice, then there is strong evidence of racially polarized voting.

Figures 2–6 present the results of the ecological inference analyses.⁶ The first four figures present ecological inference estimates for each congressional district area separately. Figure 6 examines the entire focus area (statewide races only). For each contest examined, the text on the left identifies the candidate of choice for each demographic group. In every election examined in all four districts and the focus area, both African American and white voters have clearly identifiable candidates of choice, and in all cases African American and white voters cohesively support opposing candidates. This is strong evidence of racially polarized voting.

The plot to the right in each figure displays the level of support by each group for the African American candidate of choice. The estimated level of support by African American voters is depicted with a black circle, and by white voters with a white circle. The vertical lines to either side of each circle mark the bounds of the 95% confidence intervals, which reflects the range in which the vote share is most likely to fall. In all cases, African American voters strongly support

⁶ Tables 1–5 present the numerical estimates displayed in Figures 2–6.

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their candidate of choice, with an average estimated vote share of 96.8%. White voters strongly oppose these candidates, with an average estimated vote share of only 10.7%. Excluding John Barrow, the white incumbent congressman in CD 12 in the 2012 and 2014 elections, the maximum level of support by white voters for an African American candidate of choice was 18.6%.

These results demonstrate high levels of racially polarized voting in CD 12 and its surroundings. The average difference in support for the African American candidate of choice in each district was 86.5 percentage points in CD 12, 82.2 percentage points in CD 1, 87.7 percentage points in CD 10, and 87.7 percentage points in the focus area.

Having identified the African American candidate of choice in each contest, I now turn to their ability to win elections in these districts. Table 6 presents the actual results of each election in each congressional district and in the focus area. For each election, I calculated the vote share obtained by the African American and white-preferred candidates. Across all seven congressional elections and 12 statewide contests analyzed, the African American-preferred candidate won only once. In all other cases, the white-preferred candidate won the majority of the vote (in each district individually and in the focus area as a whole).

The only African American candidate of choice to win any of the elections analyzed within the overall focus area was John Barrow, who won the CD 12 seat in the 2012 election for the U.S. House of Representatives. Barrow, who is white, was an incumbent and had won elections to the U.S. House in 2004, 2006, 2008, and 2010 in CD 12 as configured under the previous redistricting plans. Under the current plan, Barrow won reelection in CD 12 in 2012, but was defeated by the white-preferred candidate in 2014. As illustrated in Figure 2, while Barrow received a higher level of support from white voters compared to all other African American candidates of choice, Barrow's estimated vote share from white voters in 2012 (27.5%) and 2014 (17.4%) pale in

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comparison to the vote share from African American voters in those same years (94.3% and 97.5%, respectively).

In sum, based on my analysis, and as the figures and tables below illustrate, voting is highly racially polarized in the regions in and around CD 12.

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Figure 1: Map of CD 12 and Surrounding Congressional Districts



Figure 2: Ecological Inference Estimates, CD 12 * indicates Black candidates.



Figure 3: Ecological Inference Estimates, CD 1 * indicates Black candidates.



Figure 4: Ecological Inference Estimates, CD 8 * indicates Black candidates.

2012 U.S. President Black Cand. of Choice: Barack Obama* Р • White Cand. of Choice: Mitt Romney 2014 U.S. House Black Cand. of Choice: Kenneth Dious* þ White Cand. of Choice: Jody B. Hice 2014 Governor Black Cand. of Choice: Jason Carter 어 White Cand. of Choice: John Nathan Deal 2014 Lt. Governor Black Cand. of Choice: Connie Stokes* • White Cand. of Choice: L. S. 'Casey' Cagle 2014 Sec. of State Black Cand. of Choice: Doreen Carter* Р Þ White Cand. of Choice: Brian Kemp 2014 Attorney General Black Cand. of Choice: Gregory Hecht ю ON White Cand. of Choice: Samuel Olens 2014 Com. Agriculture Black Cand. of Choice: Christopher Irvin р ┝● White Cand. of Choice: Gary Black 2014 Com. Insurance • Black Cand. of Choice: Elizabeth Johnson* М ocre White Cand. of Choice: Ralph Hudgens 2014 Com. Labor Black Cand. of Choice: Robbin Shipp* þ White Cand. of Choice: J. Mark Butler \bigcirc 2014 School Super. Black Cand. of Choice: Valarie Wilson* • White Cand. of Choice: Richard Woods 2014 U.S. Senator Black Cand. of Choice: Michelle Nunn М White Cand. of Choice: David Perdue 2016 U.S. President Black Cand. of Choice: Hillary Clinton White Cand. of Choice: Donald Trump 2016 U.S. Senator Black Cand. of Choice: Jim Barksdale White Cand. of Choice: Johnny Isakson 0% 20% 40% 60% 80% 100% % Voting for Black Candidate of Choice Black Voters O White Voters

Figure 5: Ecological Inference Estimates, CD 10 (counties within focus area) * indicates Black candidates.



Figure 6: Ecological Inference Estimates, Focus Area * indicates Black candidates.

s, CD 12	for Black Candidate of Choice	Other	$\left \begin{array}{c} 0.877 \ (0.810, \ 0.930) \\ 0.941 \ (0.909, \ 0.964) \end{array}\right $	$\left \begin{array}{c cccccccccccccccccccccccccccccccccc$
		White	$\left \begin{array}{c} 0.275 \ (0.264, \ 0.288) \\ 0.116 \ (0.108, \ 0.126) \end{array}\right $	$\left \begin{array}{c} 0.174 \ (0.165, \ 0.185) \\ 0.126 \ (0.116, \ 0.135) \\ 0.070 \ (0.061, \ 0.079) \\ 0.074 \ (0.066, \ 0.083) \\ 0.086 \ (0.075, \ 0.096) \\ 0.087 \ (0.074, \ 0.091) \\ 0.080 \ (0.072, \ 0.089) \\ 0.107 \ (0.099, \ 0.116) \\ 0.117 \ (0.109, \ 0.125) \\ 0.117 \ (0.109, \ 0.125) \\ 0.071 \ (0.065, \ 0.078) \\ 0.071 \ (0.065, \ 0.078) \\ 0.073 \ (0.030, \ 0.043) \\ 0.036 \ (0.030, \ 0.043) \\ 0.030 \ (0.030, \ 0.043) \\ 0.030 \ (0.030, \ 0.043) \\ 0.030 \ (0.030, \ 0.043) \\ 0.030 \ (0.030, \ 0.043) \\ 0.030 \ (0.030, \ 0.043) \\ 0.030 \ (0.030, \ 0.043) \\ \end{array}\right.$
Inference Estimate	% Votin	Black	$\left \begin{array}{c} 0.943 \ (0.922, \ 0.960) \\ 0.924 \ (0.904, \ 0.939) \end{array}\right $	$\begin{array}{c} 0.975 & (0.963, \ 0.985) \\ 0.975 & (0.962, \ 0.984) \\ 0.976 & (0.965, \ 0.985) \\ 0.976 & (0.965, \ 0.984) \\ 0.976 & (0.965, \ 0.984) \\ 0.976 & (0.965, \ 0.986) \\ 0.973 & (0.966, \ 0.986) \\ 0.978 & (0.966, \ 0.986) \\ 0.978 & (0.964, \ 0.986) \\ 0.978 & (0.964, \ 0.986) \\ 0.978 & (0.964, \ 0.986) \\ 0.978 & (0.964, \ 0.986) \\ 0.978 & (0.964, \ 0.986) \\ 0.978 & (0.964, \ 0.986) \\ 0.978 & (0.964, \ 0.986) \\ 0.978 & (0.964, \ 0.986) \\ 0.978 & (0.964, \ 0.986) \\ 0.978 & (0.964, \ 0.986) \\ 0.978 & (0.964, \ 0.986) \\ 0.978 & (0.964, \ 0.986) \\ 0.946 & (0.931, \ 0.962) \\ 0.946 & (0.931, \ 0.962) \\ 0.946 & (0.972, \ 0.962) \\ 0.946 & (0.972, \ 0.962) \\ 0.946 & (0.972, \ 0.965) \\ 0.946 & (0.972, \ 0.962) \\ 0.957 & (0.957) \\ 0.947 & (0.972, \ 0.957) \\ 0.947 & (0.957, \ 0.957) \\ 0.947 & (0.957, \ 0.957) \\ 0.947 & (0.957, \ 0.957) \\ 0.947 & (0.957, \ 0.957) \\ 0.947 & (0.957, \ 0.957) \\ 0.947 & (0.957, \ 0.957) \\ 0.947 & (0.957, \ 0.957) \\ 0.947 & (0.957, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957) \\ 0.957 & (0.955, \ 0.957$
• 1: Ecological	White Cand.	of Choice	Anderson Romney	Allen Deal Cagle Kemp Olens Butler Woods Perdue Allen Trump Isakson
Table	Black Cand.	of Choice	Barrow Obama*	Barrow Carter Stokes* Carter* Hecht Irvin Johnson* Shipp* Wilson* Nunn McCracken Clinton Barksdale tes.
		Contest	U.S. House U.S. President	U.S. House Governor Lt. Governor Sec. of State Attorney General Com. Agriculture Com. Insurance Com. Labor School Super. U.S. Benator U.S. President U.S. President U.S. Senator Costes Black candidat
		Year	2012	2014 2016 * indi

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2: Ecological Inference Estimates, CD 1	or Black Candidate of Choice	Other	$.687 (0.535, 0.812) \\ .907 (0.857, 0.947)$	$\begin{array}{c} 850 & (0.747, \ 0.932) \\ .723 & (0.549, \ 0.853) \\ .837 & (0.730, \ 0.914) \\ .829 & (0.699, \ 0.909) \\ .788 & (0.678, \ 0.893) \\ .788 & (0.669, \ 0.929) \\ .870 & (0.773, \ 0.938) \\ .870 & (0.773, \ 0.938) \\ .830 & (0.709, \ 0.911) \\ .856 & (0.737, \ 0.932) \\ .822 & (0.704, \ 0.905) \\ .855 & (0.793, \ 0.913) \\ .859 & (0.793, \ 0.913) \\ .859 & (0.793, \ 0.913) \\ \end{array}$
		White	$\begin{array}{c c} 0.110 & (0.097, 0.125) \\ 0.165 & (0.156, 0.174) \end{array} \left \begin{array}{c} 0 \\ 0 \end{array} \right $	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
	% Voting	Black	$\begin{array}{c} 0.887 & (0.860, \ 0.912) \\ 0.968 & (0.952, \ 0.980) \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	White Cand.	of Choice	Kingston Romney	Carter Deal Cagle Kemp Kemp Olens Black Hudgens Butler Woods Perdue Trump Isakson
Table	Black Cand.	of Choice	Messinger Obama*	Reese* Carter Stokes* Carter* Hecht Irvin Johnson* Shipp* Wilson* Nunn Clinton Barksdale
		Contest	U.S. House U.S. President	U.S. House Governor Lt. Governor Sec. of State Attorney General Com. Agriculture Com. Insurance Com. Labor School Super. U.S. Senator U.S. President U.S. Senator States Black candidat
		Year	2012	2014 2016 * indic

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			[]	
	ndidate of Choice	Other	(0.912, 0.971)	$\begin{array}{c} (0.742,\ 0.956\\ (0.690,\ 0.907\\ (0.681,\ 0.907\\ (0.582,\ 0.928\\ (0.582,\ 0.946\\ (0.717,\ 0.945\\ (0.750,\ 0.945\\ (0.760,\ 0.946\\ (0.768,$
			0.946	0.881 0.815 0.873 0.873 0.873 0.873 0.873 0.873 0.873
		е	, 0.112)	$\begin{array}{c} 0.156\\ 0.094\\ 0.004\\ 0.004\\ 0.0106\\ 0.104\\ 0.104\\ 0.102\\ 0.122\\ 0.122\\ 0.139\\ 0.027\\ 0.057\\ 0.057\\ \end{array}$
D 8	3lack C ^ε	Whit	06(0.100)	$\begin{array}{c} k6 \ (0.139\\ 55 \ (0.078\\ 55 \ (0.087\\ 55 \ (0.083\\ 55 \ (0.088\\ 55 \ (0.088\\ 55 \ (0.088\\ 55 \ (0.088\\ 55 \ (0.088\\ 55 \ (0.088\\ 55 \ (0.088\\ 56 \ (0.088\ 56 \$
es, C.	g for l		0.10	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
stimate	% Votin		(0.989)	$\begin{array}{c c} 0.984\\ 0.985\\ 0.985\\ 0.984\\ 0.987\\ 0.985\\ 0.985\\ 0.985\\ 0.985\\ 0.985\\ 0.985\\ 0.985\\ 0.986\\ 0.986\\ 0.986\\ 0.987\\ 0.968\\ $
nce E		Black	(0.972)	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
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gical	and.	e		JEND -
3: Ecolo	White C	of Choic	Romney	Deal Cagle Kemp Olens Black Hudgens Butler Voods Perdue Scott Trump Isakson
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L	Black C	of Choic	$Obama^*$	Carter Stokes* Carter* Hecht Irvin Johnson Shipp* Wilson* Nunn Harris Clinton Barksda
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		Contest	U.S. Pre	Governol Lt. Gove Sec. of S Attorney Com. In: Com. In: Com. La School S U.S. Sen: U.S. Sen: U.S. Preé U.S. Preé U.S. Sena ates Blacl
		Year	2012	2014 2016 * indic

rea)	for Black Candidate of Choice	Other	$0.787\ (0.589,\ 0.923)$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
ties within focus a		White	$\left \begin{array}{c} 0.115 \ (0.102, \ 0.133) \end{array} \right $	$\left \begin{array}{c} 0.070 & (0.057, \ 0.086) \\ 0.121 & (0.105, \ 0.140) \\ 0.071 & (0.051, \ 0.080) \\ 0.071 & (0.058, \ 0.085) \\ 0.082 & (0.066, \ 0.101) \\ 0.081 & (0.067, \ 0.097) \\ 0.082 & (0.068, \ 0.099) \\ 0.112 & (0.096, \ 0.130) \\ 0.132 & (0.117, \ 0.152) \\ 0.047 & (0.035, \ 0.064) \\ 0.047 & (0.035, \ 0.064) \\ \end{array} \right $
mates, CD 10 (coun	% Voting	Black	\mid 0.969 (0.950, 0.983) \mid	$\left \begin{array}{c} 0.974 & (0.955, \ 0.987) \\ 0.970 & (0.949, \ 0.985) \\ 0.971 & (0.951, \ 0.985) \\ 0.977 & (0.959, \ 0.989) \\ 0.973 & (0.954, \ 0.986) \\ 0.973 & (0.954, \ 0.986) \\ 0.972 & (0.954, \ 0.987) \\ 0.972 & (0.954, \ 0.987) \\ 0.972 & (0.954, \ 0.988) \\ 0.972 & (0.954, \ 0.988) \\ 0.976 & (0.958, \ 0.988) \\ 0.976 & (0.924, \ 0.970) \\ 0.949 & (0.924, \ 0.970) \\ \end{array} \right $
Inference Esti	White Cand.	of Choice	Romney	Hice Deal Cagle Kemp Olens Black Hudgens Butter Woods Perdue Isakson
: Ecological	Black Cand.	of Choice	Obama^{*}	Dious* Carter Stokes* Carter Hecht Irvin Johnson* Nunn Clinton Barksdale tes.
Table 4		Contest	U.S. President	U.S. House Governor Lt. Governor Sec. of State Attorney General Com. Agriculture Com. Insurance Com. Labor School Super. U.S. Senator U.S. President U.S. Senator C.S. Senator C.S. Senator
		Year	2012	2014 2016 * indic

			968)	$\begin{array}{c c} 849\\ -811\\ -811\\ -825\\ -875\\ -937\\ -937\\ -945$
ates, Focus Area)ther	.934, 0	
	Choice	C	0.952 (0)	0,767 (0 .8158 (0 .757 (0 .777 (0 .777 (0 .818 (0 .923 (0 .923 (0 .923 (0
	late of		26) 0	$\begin{array}{c c} \hline 51\\ \hline 53\\ \hline 5$
ea	or Black Candic	hite	118, 0.1	138, 0.1 079, 0.0 084, 0.0 096, 0.1 092, 0.1 114, 0.1 114, 0.1 091, 0.0 049, 0.0
tus Ar		Μ	122 (0.	$\begin{array}{c} 144 \ (0.084 \ (0.000 \$
s, Foc	ting fo		5) 0.	$\begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 $
timate	% Vo	ck	51, 0.96	77, 0.98 99, 0.98 80, 0.98 99, 0.98 83, 0.95 83, 0.95
ice Est		Bla	36.0) 69	22 (0.97 23 (0.97 23 (0.97 23 (0.97 23 (0.97 24 (0.97 24 (0.97 25 (0.98 26 (0.98 26 (0.98 26 (0.98 27 (0.98 26 (0.98 27 (0.98 27 (0.98 28 (0.98) 28 (0.
nferer			0.9	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
gical I	e Cand	oice	ley	
Ecolog	White	of Ch	Romn	Deal Cagle Kemp Black Butle Wood Perdu Isakse
ole 5:	Cand.	ice	*	
Tal	Black (of Cho	Obama	Carter Stokes' Carter' Lrvin Johnso Shipp* Wilson Nunn Clintor Clintor s.
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		st	residen	aor vernor f State ley Ger Agricul Insurar Insurar Eabor residen enator enator ack car
		Conte	U.S. P	Gover Lt. Ge Sec. o Attorn Com. Com. Com. School U.S. P U.S. S U.S. S U.S. S ates Bl
		Year	2012	2014 2016 * indic

		Table	<u>e 6: Act</u>	ual Elec	<u>stion R</u>	esults				
	CD	12	CI) 1	CI	0.8	CD	10	Focus	Area
Candidate of Choice:	Black	White	Black	White	Black	White	Black	White	Black	White
2012 U.S. House	0.540	0.460	0.371	0.629	I		I			
2012 U.S. President	0.443	0.557	0.436	0.564	0.430	0.570	0.460	0.540	0.436	0.564
2014 U.S. House	0.455	0.545	0.392	0.608	I		0.404	0.596	I	
2014 Governor	0.420	0.580	0.426	0.574	0.426	0.574	0.432	0.568	0.424	0.576
2014 Lt. Governor	0.388	0.612	0.397	0.603	0.383	0.617	0.399	0.601	0.389	0.611
2014 Sec. of State	0.391	0.609	0.396	0.604	0.388	0.612	0.404	0.596	0.391	0.609
2014 Attorney General	0.394	0.606	0.400	0.600	0.394	0.606	0.408	0.592	0.395	0.605
2014 Com. Agriculture	0.392	0.608	0.396	0.604	0.386	0.614	0.399	0.601	0.390	0.610
2014 Com. Insurance	0.400	0.600	0.409	0.591	0.394	0.606	0.410	0.590	0.400	0.600
2014 Com. Labor	0.394	0.606	0.402	0.598	0.392	0.608	0.410	0.590	0.396	0.604
2014 School Super.	0.417	0.583	00.419	0.581	0.406	0.594	0.426	0.574	0.413	0.587
2014 U.S. Senator	0.424	0.576	6.427	0.573	0.415	0.585	0.439	0.561	0.421	0.579
2016 U.S. House	0.387	0.613	SER.	I	0.323	0.677	Ι	I	Ι	I
2016 U.S. President	0.420	0.580	0.421	0.579	0.401	0.599	0.427	0.573	0.413	0.587
2016 U.S. Senator	0.382	0.618	0.380	0.620	0.365	0.635	0.387	0.613	0.374	0.626
				ç V	OCKET.	OM				

Maxwell Palmer

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Appointments	Boston University, Boston, Massach	nusetts
	Assistant Professor, Department of Junior Faculty Fellow, Hariri Instit	Political Science, 2014–Present ute for Computing, 2017–Present
Education	Harvard University, Cambridge, Ma	assachusetts
	Ph.D., Political Science, May 2014.	
	A.M., Political Science, May 2012.	
	Bowdoin College, Brunswick, Maine	COM
	A.B., Mathematics & Government	and Legal Studies, May 2008.
Refereed Publications	Einstein, Katherine Levine, Maxwell Pa "Who Participates in Local Governme Perspectives on Politics.	almer, and David M. Glick. Forthcoming. ent? Evidence from Meeting Minutes."
	Palmer, Maxwell and Benjamin Schne How Politicians Capitalize on Public (er. Forthcoming. "Post-Political Careers: Office." Journal of Politics.
	Einstein, Katherine Levine, David M. G "City Learning: Evidence of Policy Info Mayors." <i>Political Research Quarterly</i> .	Glick, and Maxwell Palmer. Forthcoming. ormation Diffusion From a Survey of U.S.
	Einstein, Katherine Levine, David M. o sel. Forthcoming. "Do Mayors Run for gressive Ambition." American Politics	Glick, Maxwell Palmer, and Robert Pres- or Higher Office? New Evidence on Pro- <i>Research</i> .
	Ansolabehere, Stephen, Maxwell Palme Government and Significant Legislation Social Science History 42(1): 81–108.	er and Benjamin Schneer. 2018. "Divided a, A History of Congress from 1789-2010."
	Edwards, Barry, Michael Crespin, Rya 2017. "Institutional Control of Redistr tion." Journal of Politics 79(2): 722–7	an D. Williamson, and Maxwell Palmer. icting and the Geography of Representa- 26.
	Palmer, Maxwell. 2016. "Does the Ch to Special Courts and Panels?" Journa 177.	ief Justice Make Partisan Appointments al of Empirical Legal Studies 13(1): 153–

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	Palmer, Maxwell and Benjamin Schneer. 2016. "Capitol Gains: The Returns to Elected Office from Corporate Board Directorships." Journal of Politics 78(1): 181–196.
	Gerring, John, Maxwell Palmer, Jan Teorell, and Dominic Zarecki. 2015. "De- mography and Democracy: A Global, District-level Analysis of Electoral Con- testation." American Political Science Review 109(3): 574–591.
Other Publications	Ansolabehere, Stephen and Maxwell Palmer. 2016. "A Two Hundred-Year Sta- tistical History of the Gerrymander." Ohio State Law Journal 77(4): 741–762.
	Ansolabehere, Stephen, Maxwell Palmer, and Benjamin Schneer. 2016. "What Has Congress Done?" in <i>Governing in a Polarized Age: Elections, Parties, and Political Representation in America</i> , eds. Alan Gerber and Eric Schickler. New York, NY: Cambridge University Press.
Policy Reports	Einstein, Katherine Levine, David Glick, and Maxwell Palmer. 2018. "2017 Menino Survey of Mayors." Research Report. Boston University Initiative on Cities.
Book Manuscript	The Participatory Politics of Housing: How Neighborhood Defenders Obstruct Development (with Katherine Levine Einstein and David M. Glick). Under Review
Working Papers	"Rainmakers: Former Politicians as Lobbyists" (with Pamela Ban and Benjamin Schneer). Invited to Revise and Resubmit, <i>Legislative Studies Quarterly</i> .
	"Racial Disparities in Housing Politics: Evidence from Administrative Data" (with Katherine Levine Einstein and David M. Glick).
	"Descended from Immigrants and Revolutionists: How Immigrant Experience Shapes Congressional Decision-making on Immigration Votes" (with James Feigen- baum and Benjamin Schneer).
	"Reexamining the Gender Gap in Support of War" (with Katherine Krimmel and Douglas Kriner).
	"Corporate Political Activity as a Bundle of Goods" (with Daniel Moskowitz and Benjamin Schneer).
Grants and Awards	The Rockefeller Foundation, "Menino Survey of Mayors" (Co-principal investi- gator). 2017. \$325,000.
	Hariri Institute for Computing, Boston University. Junior Faculty Fellow. 2017. \$10,000.

The Rockefeller Foundation, "2017 Menino Survey of Mayors" (Co-principal investigator). 2017. \$100,000.

The Center for Finance, Law, and Policy, Boston University, Research Grant for "From the Capitol to the Boardroom: The Returns to Office from Corporate Board Directorships," 2015.

Senator Charles Sumner Prize, Dept. of Government, Harvard University. 2014. Awarded to the best dissertation "from the legal, political, historical, economic, social or ethnic approach, dealing with means or measures tending toward the prevention of war and the establishment of universal peace."

The Center for American Political Studies, Dissertation Research Fellowship on the Study of the American Republic, 2013–2014.

The Tobin Project, Democracy and Markets Graduate Student Fellowship, 2013–2014.

The Dirksen Congressional Center, Congressional Research Award, 2013.

The Institute for Quantitative Social Science, Conference Travel Grant, 2014.

The Center for American Political Studies, Graduate Seed Grant for "Capitol Gains: The Returns to Elected Office from Corporate Board Directorships," 2014.

The Institute for Quantitative Social Science, Research Grant, 2013.

Bowdoin College: High Honors in Government and Legal Studies; Philo Sherman Bennett Prize for Best Honors Thesis in the Department of Government, 2008.

SELECTED "Descended from Immigrants and Revolutionists: How Immigrant Experience PRESENTATIONS Shapes Immigration Votes in Congress," Congress and History Conference, Princeton University, 2018.

"Identifying Gerrymanders at the Micro- and Macro-Level." Hariri Institute for Computing, Boston University, 2018.

"Descended from Immigrants and Revolutionists: How Immigrant Experience Shapes Immigration Votes in Congress," Annual Meeting of the Southern Political Science Association, New Orleans, LA, 2018.

"How Institutions Enable NIMBY ism and Obstruct Development," Boston Area Research Initiative Spring Conference, Northeastern University, 2017.

"Corporate Political Activity as a Bundle of Goods," Annual Meeting of the

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American Political Science Association, Philadelphia, PA, 2016.

"Congressional Gridlock," American Studies Summer Institute, John F. Kennedy Presidential Library and Museum, 2016.

"Capitol Gains: The Returns to Elected Office from Corporate Board Directorships," Microeconomics Seminar, Department of Economics, Boston University, 2015.

"The Corporate Boardroom's Revolving Door," Annual Meeting of the American Political Science Association, San Francisco, CA, 2015.

"The Corporate Boardroom's Revolving Door," Annual Meeting of the European Political Science Association, Vienna, Austria, 2015.

"A Two Hundred-Year Statistical History of the Gerrymander," Congress and History Conference, Vanderbilt University, 2015.

"A New (Old) Standard for Geographic Gerrymandering," Harvard Ash Center Workshop: How Data is Helping Us Understand Voting Rights After Shelby County, 2015.

"Capitol Gains: The Returns to Elected Office from Corporate Board Directorships," Boston University Center for Finance, Law, and Policy, 2015.

"Does the Chief Justice Make Partisan Appointments to Special Courts and Panels?" Annual Meeting of the American Political Science Association, Washington, DC, 2014

"Capitol Gains: The Returns to Elected Office from Corporate Board Directorships," Annual Meeting of the Midwest Political Science Association, Chicago, IL, 2014.

"Capitol Gains: The Returns to Elected Office from Corporate Board Directorships," Bowdoin College, 2014.

"Corporate Boards as Legislatures," Annual Meeting of the Southern Political Science Association, New Orleans, LA, 2014.

"Presidential Legacies and Partisan Balance on the Federal Courts," Annual Meeting of the Southern Political Science Association, New Orleans, LA, 2014.

"Time and Political Power: Setting the Calendar in a Busy Legislature," Annual Meeting of the Midwest Political Science Association, Chicago, IL, 2013.

"Using Multiple Elections to Evaluate Districting Maps," Annual Meeting of the Midwest Political Science Association, Chicago, IL, 2012.

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Teaching	Boston University – Introduction to American Politics (Fall 2014, Fall 2015, Fall 2016, Fall 2017)
	- Congress and Its Critics (Fall 2014, Spring 2015, Spring 2017)
	- Formal Political Theory (Spring 2015, Spring 2017)
	– Prohibition, Regulation, and Bureaucracy (Fall 2015)
	 Political Analysis (Fall 2016, Fall 2017)
	Harvard University – American Government (Head Teaching Fellow, Fall 2012 and Fall 2013)
	- The Politics of Congress (Head Teaching Fellow, Spring 2013)
	 Introduction to Congress (Teaching Fellow, Spring 2012).
Service	Boston University
	- College of Arts and Sciences
	– General Education Curriculum Committee, 2017–2018.
	– Department of Political Science
	– Co-organizer, Research in American Politics Workshop, 2016–2018.
	– American Politics Search Committee, 2017.
	– American Politics Search Committee, 2016.
	– Graduate Program Committee, 2014–2015.
	29, 2018.
	Reviewer: American Journal of Political Science; American Political Science Review; Journal of Politics; Quarterly Journal of Political Science; Political Analysis; Public Choice: Political Science Research and Methods: Journal of
	Law, Economics and Organization; Election Law Journal; Applied Geography; Cambridge University Press; Oxford University Press.
	Coordinator, Harvard Election Data Archive, 2011–2014.
Other	Charles River Associates, Boston, Massachusetts 2008–2010
EXPERIENCE	Associate, Energy & Environment Practice
	Economic consulting in the energy sector for electric and gas utilities, private equity, and electric generation owners. Specialized in Financial Modeling, Resource Planning, Regulatory Support, Price Forecasting, and Policy Analysis.

United States District Court for the Northern District of Georgia

Dwight, et al. v. Raffensperger, No. 1:18-cv-2869-RWS

February 22, 2019

Rebuttal Report of Maxwell Palmer

Maxwell Palmer
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MAXWELL PALMER submits the following report in accordance with Federal Rule of Civil Procedure 26(a)(2)(B), and Federal Rules of Evidence 702 and 703.

1. My original report for this matter, submitted on December 3, 2018, examined racially polarized voting in the 12th Congressional District and its surroundings in the 2012, 2014, and 2016 general elections. I found that African American and white voters consistently support different candidates. In every election I analyzed, the African American-preferred candidate won more than 85% of the African American vote and less than 30% of the white vote. African American-preferred candidates are largely unable to win elections in the focus region.

2. Dr. Alford does not contest any of the conclusions, methodology, or empirical results in my original expert report. Indeed, he accepts that the analysis was done correctly, and uses my exact methodology (including the exact computer code I used for my analysis) in his own analysis of the 2018 elections. Dr. Alford does not contest my conclusion that there is a high degree of racially polarized voting in the 12th Congressional District and its surroundings in any of the elections analyzed, nor does he contest that the white majority votes as a bloc to consistently defeat the African American-preferred candidates.

3. In this rebuttal report I update my analysis to include the 2018 general elections. I find the same consistent pattern as in my original report: African American and white voters consistently support different candidates, and African American-preferred candidates are not able to win elections in the focus region.

4. I rely on the same data sources and methods of analysis as in my original report.

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5. Figures 1–5 present the results of my ecological inference analyses, described in more detail in my initial report, for the 2018 general election.¹ The first four figures present ecological inference estimates for each congressional district separately. Figure 5 examines the entire focus area (statewide races only). For each contest examined, the text on the left identifies the candidate of choice for each demographic group. In every election examined in all four districts and the focus area, both African American and white voters have clearly identifiable candidates of choice, and in all cases African American and white voters cohesively support opposing candidates.²

6. On average, African American voters in 2018 cast 97.7% of their votes for African American-preferred candidates. By contrast, white voters averaged only 8.6% of their votes for African American-preferred candidates.

7. These results demonstrate high levels of racially polarized voting in the 12th district and its surroundings. The average difference in support for the African American candidate of choice in each district was 91.7 percentage points in CD 12, 81.6 percentage points in CD 1, 91.1 percentage points in CD 8, 91.3 percentage points in CD 10, and 90.1 percentage points in the focus area.

8. Table 6 presents the actual results of each election, in each congressional district area and in the focus area. For each election, I calculate the vote share obtained by the African American and white-preferred candidates. The African American-preferred candidate lost all three congressional elections and 8 statewide contests analyzed.

¹ Tables 1–5 present the numerical estimates displayed in Figures 1–5.

² There are no meaningful differences between my estimates and those produced in Dr. Alford's report.

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9. The racial voting patterns and results of the 2018 general elections are consistent with my analysis of racial voting patterns in my original report and further support my conclusions that African Americans constitute a cohesive voting group in and around the 12th congressional district, that there is a high level of racially polarized voting in and around the 12th congressional district, and that the white majority in this area has routinely voted as a bloc to defeat African American-preferred candidates.

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Figure 1: Ecological Inference Estimates, 2018 General Election, CD 12 * indicates Black candidates



Figure 2: Ecological Inference Estimates, 2018 General Election, CD 1 * indicates Black candidates



Figure 3: Ecological Inference Estimates, 2018 General Election, CD 8 * indicates Black candidates



Figure 4: Ecological Inference Estimates, 2018 General Election, CD 10 (counties within focus area)

* indicates Black candidates



Figure 5: Ecological Inference Estimates, 2018 General Election, Focus Area * indicates Black candidates

2	of Choice	Other	$\begin{array}{c} 0.935 \ (0.900, \ 0.962) \\ 0.955 \ (0.934, \ 0.971) \\ 0.951 \ (0.924, \ 0.971) \\ 0.946 \ (0.918, \ 0.967) \\ 0.939 \ (0.909, \ 0.963) \\ 0.934 \ (0.918, \ 0.964) \\ 0.936 \ (0.906, \ 0.959) \\ 0.937 \ (0.900, \ 0.962) \\ 0.937 \ (0.900, \ 0.962) \\ \end{array}$
eral Election, CD 12	g for Black Candidate o	White	$\begin{array}{c} 0.047 & (0.042, \ 0.054) \\ 0.062 & (0.056, \ 0.069) \\ 0.055 & (0.049, \ 0.062) \\ 0.138 & (0.131, \ 0.146) \\ 0.064 & (0.058, \ 0.070) \\ 0.040 & (0.035, \ 0.044) \\ 0.043 & (0.038, \ 0.049) \\ 0.043 & (0.038, \ 0.049) \\ 0.048 & (0.042, \ 0.054) \\ 0.042 & (0.054) \\ \end{array}$
timates, 2018 Gene	% Voting	Black	0.972 (0.962, 0.980) 0.983 (0.975, 0.989) 0.978 (0.968, 0.985) 0.977 (0.965, 0.985) 0.978 (0.966, 0.983) 0.978 (0.966, 0.983) 0.978 (0.969, 0.986) 0.978 (0.969, 0.986) 0.980 (0.971, 0.987)
al Inference Es	White Cand.	of Choice	Allen Kemp Duncan Raffensperger Carr Black Beck Woods Butler
e 1: Ecologic	Black Cand.	of Choice	Johnson* Abrams* Amico Barrow Bailey Swann Laws* Thornton* Keatley tes
Table		Contest	U.S. House Governor Lt. Governor Sec. of State Attorney General Com. Agriculture Com. Insurance School Super. Com. Labor com. Labor
		Year	* in di

	of Choice	Other	$\begin{array}{c} 0.841 & (0.767, \ 0.898) \\ 0.878 & (0.830, \ 0.919) \\ 0.850 & (0.776, \ 0.903) \\ 0.882 & (0.827, \ 0.924) \\ 0.881 & (0.819, \ 0.924) \\ 0.802 & (0.740, \ 0.861) \\ 0.879 & (0.823, \ 0.923) \\ 0.842 & (0.776, \ 0.890) \\ 0.854 & (0.793, \ 0.905) \\ \end{array}$
eral Election, CD 1	g for Black Candidate o	White	$ \begin{array}{c} 0.151 & (0.139, \ 0.165) \\ 0.165 & (0.154, \ 0.177) \\ 0.157 & (0.145, \ 0.173) \\ 0.202 & (0.191, \ 0.216) \\ 0.150 & (0.140, \ 0.162) \\ 0.142 & (0.134, \ 0.155) \\ 0.144 & (0.129, \ 0.153) \\ 0.142 & (0.131, \ 0.155) \\ 0.142 & (0.131, \ 0.155) \\ \end{array} $
stimates, 2018 Gen	% Voting	Black	0.968 (0.953, 0.979) 0.971 (0.956, 0.982) 0.970 (0.954, 0.981) 0.969 (0.951, 0.981) 0.972 (0.959, 0.983) 0.972 (0.956, 0.983) 0.972 (0.956, 0.983) 0.972 (0.956, 0.983)
cal Inference E	White Cand.	of Choice	Carter Kemp Duncan Raffensperger Carr Black Beck Woods Butler
le 2: Ecologi	Black Cand.	of Choice	Ring Abrams* Amico Barrow Bailey Swann Laws* Thornton* Keatley tes
Tabi		Contest	U.S. House Governor Lt. Governor Sec. of State Attorney General Com. Agriculture Com. Insurance School Super. Com. Labor cates Black candida
		Year	2018 * indi

	of Choice	Other	$\begin{array}{c} 0.943 & (0.909, \ 0.967) \\ 0.924 & (0.874, \ 0.959) \\ 0.941 & (0.904, \ 0.967) \\ 0.928 & (0.883, \ 0.960) \\ 0.908 & (0.852, \ 0.951) \\ 0.941 & (0.890, \ 0.968) \\ 0.922 & (0.878, \ 0.958) \\ 0.923 & (0.877, \ 0.955) \\ \end{array}$
eral Election, CD 8	g for Black Candidate o	White	$\begin{array}{c} 0.076 & (0.070, \ 0.083) \\ 0.068 & (0.062, \ 0.076) \\ 0.095 & (0.089, \ 0.102) \\ 0.074 & (0.068, \ 0.082) \\ 0.044 & (0.058, \ 0.072) \\ 0.051 & (0.045, \ 0.057) \\ 0.057 & (0.052, \ 0.064) \\ \end{array}$
stimates, 2018 Gene	% Voting	Black	0.981 (0.971, 0.988) 0.977 (0.966, 0.985) 0.979 (0.968, 0.987) 0.978 (0.968, 0.986) 0.975 (0.964, 0.986) 0.979 (0.966, 0.984) 0.979 (0.969, 0.986) 0.979 (0.969, 0.986)
cal Inference E	White Cand.	of Choice	Kemp Duncan Raffensperger Carr Black Beck Woods Butler
le 3: Ecologi	Black Cand.	of Choice	Abrams* Amico Barrow Bailey Swann Laws* Keatley Keatley tes
Tabi		r Contest	Governor Lt. Governor Sec. of State Attorney General Com. Agriculture Com. Insurance School Super. Com. Labor dicates Black candida
		Year	×

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		Black Cand.	White Cand.	% Votir	ig for Black Candidate	of Choice
Year	Contest	of Choice	of Choice	Black	White	Other
	U.S. House Governor Lt. Governor Sec. of State Attorney General Com. Agriculture Com. Insurance School Super. Com. Labor	Johnson-Green* Abrams* Amico Barrow Bailey Swann Laws* Thornton* Keatley	Hice Kemp Duncan Raffensperger Carr Black Woods Woods	$\begin{array}{c} 0.976 & (0.957, 0.988) \\ 0.981 & (0.963, 0.991) \\ 0.976 & (0.956, 0.988) \\ 0.969 & (0.944, 0.985) \\ 0.973 & (0.954, 0.985) \\ 0.972 & (0.952, 0.986) \\ 0.972 & (0.952, 0.986) \\ 0.974 & (0.955, 0.986) \\ 0.972 & (0.952, 0.986) \\ 0.972 & (0.952, 0.986) \\ \end{array}$	$\begin{array}{c} 0.049 & (0.040, \ 0.064) \\ 0.061 & (0.052, \ 0.073) \\ 0.058 & (0.047, \ 0.075) \\ 0.126 & (0.112, \ 0.146) \\ 0.055 & (0.054, \ 0.082) \\ 0.039 & (0.032, \ 0.050) \\ 0.054 & (0.044, \ 0.066) \\ 0.054 & (0.044, \ 0.061) \\ 0.053 & (0.041, \ 0.070) \\ 0.053 & (0.041, \ 0.070) \end{array}$	$\begin{array}{c} 0.874 & (0.763, \ 0.946) \\ 0.905 & (0.809, \ 0.961) \\ 0.815 & (0.588, \ 0.927) \\ 0.839 & (0.664, \ 0.942) \\ 0.844 & (0.679, \ 0.935) \\ 0.854 & (0.730, \ 0.941) \\ 0.851 & (0.715, \ 0.930) \\ 0.844 & (0.699, \ 0.935) \\ 0.850 & (0.688, \ 0.947) \\ \end{array}$
* *	icates Black candidat	ŝ	M DEMOCRY	a ACTOOCKET.COM		

a	Choice	Other	$\begin{array}{c} 2.944 & (0.929, \ 0.959) \\ 2.931 & (0.913, \ 0.948) \\ 2.943 & (0.923, \ 0.960) \\ 2.938 & (0.916, \ 0.955) \\ 2.912 & (0.887, \ 0.935) \\ 2.934 & (0.914, \ 0.951) \\ 2.924 & (0.905, \ 0.941) \\ 2.924 & (0.904, \ 0.941) \\ \end{array}$
Election, Focus Are	for Black Candidate of	White	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
nates, 2018 General	% Voting	Black	0.987 (0.983, 0.990) 0.983 (0.978, 0.987) 0.985 (0.981, 0.989) 0.984 (0.980, 0.988) 0.981 (0.976, 0.988) 0.983 (0.979, 0.987) 0.983 (0.979, 0.987)
Inference Estin	White Cand.	of Choice	Kemp Duncan Raffensperger Carr Black Beck Woods Butler
: Ecological	Black Cand.	of Choice	Abrams* Amico Barrow Bailey Swann Laws* Keatley Keatley
Table 5		Contest	Governor Lt. Governor Sec. of State Attorney General Com. Agriculture Com. Insurance School Super. Com. Labor icates Black candidat
		Year	* in di

	CD	12	CI) 1	CI	0 8	CL) 10	Focu	s Area
Candidate of Choice:	Black	White	Black	White	Black	White	Black	White	Black	White
2018 U.S. House	0.408	0.592	0.424	0.576	I	Ι	0.403	0.597	I	I
2018 Governor	0.422	0.578	0.432	0.568	0.404	0.596	0.413	0.587	0.416	0.584
2018 Lt. Governor	0.415	0.585	0.426	0.574	0.397	0.603	0.401	0.599	0.408	0.592
2018 Sec. of State	0.464	0.536	0.455	0.545	0.416	0.584	0.442	0.558	0.441	0.559
2018 Attorney General	0.421	0.579	0.429	0.571	0.403	0.597	0.410	0.590	0.414	0.586
2018 Com. Agriculture	0.405	0.595	0.416	0.584	0.386	0.614	0.394	0.606	0.399	0.601
2018 Com. Insurance	0.413°	0.587	0.422	0.578	0.397	0.603	0.404	0.596	0.407	0.593
2018 School Super.	0.408	0.592	0.417	0.583	0.388	0.612	0.398	0.602	0.401	0.599
2018 Com. Labor	0.411	0.589	0.420	0.580	0.393	0.607	0.401	0.599	0.405	0.595
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"Black" and "White" refer to the vote shares of the African American and white preferred candidates, respectively.

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EXHIBIT B

United States District Court for the Northern District of Georgia

Dwight, et al. v. Kemp, No. 1:18-cv-2869-RWS

EXPERT REPORT OF JOHN R. ALFORD, Ph.D.

Scope of Inquiry

I have been retained by the Georgia Secretary of State as an expert to provide analysis related to *Dwight, et al. v. Kemp*, a Voting Rights Act challenge related to the current U.S. Congressional districts in Georgia. I have examined the various reports provided by plaintiffs' experts Dr. Maxwell Palmer and Dr. Kenneth Mayer in this case. The analysis here includes a replication of the Ecological Inference analysis of past elections included in Dr. Palmer's report in this case. There is also an update of that analysis to include a similar analysis of the recent 2018 elections. In addition, I address a limited set of the issues raised by Dr. Mayer in his report in this case. My rate of compensation in this matter is \$400 per hour.

Qualifications

I am a tenured full professor of political science at Rice University. At Rice, I have taught courses on redistricting, elections, political representation, voting behavior and statistical methods at both the undergraduate and graduate level. Over the last thirty years, I have worked with numerous local governments on districting plans and on Voting Rights Act issues. I have previously provided expert reports and/or testified as an expert witness in voting rights and

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statistical issues in a variety of court cases, working for the U.S. Attorney in Houston, the Texas Attorney General, a U.S. Congressman and various cities and school districts.

In the 2000 round of redistricting, I was retained as an expert to provide advice to the Texas Attorney General in his role as Chair of the Legislative Redistricting Board. I subsequently served as the expert for the State of Texas in the state and federal litigation involving the 2001 redistricting for U.S. Congress, the Texas Senate, the Texas House of Representatives, and the Texas State Board of Education. I have also worked as an expert on redistricting and voting rights cases in Louisiana, New Mexico, Mississippi, Wisconsin, Florida, Georgia, Michigan, New York, and Alabama. The details of my academic background, including all publications in the last ten years, and work as an expert, including all cases in which I have testified by deposition or at trial in the last four years, are covered in the attached - h CV (Appendix 2).

Data and Sources

In preparing my report, I have reviewed the reports filed by the plaintiffs' experts in this case. I have relied on precinct level data, including election results, and voter turnout data available publicly from the Georgia Secretary of State's web site, data provided by Dr. Palmer related to his report in this case, as well as additional 2018 election data provided by the Georgia Secretary of State.

Dr. Mayer's Analysis of Voter Participation

Dr. Mayer, in his report in this case, offers an analysis of Black and white socioeconomic conditions and voter participation in Georgia and in the 'focus area' of this case. He states that

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for Blacks in Georgia "these socioeconomic disadvantages translate directly into a diminished ability to participate in the political process" (page 6, Mayer report). However, when he turns to actual participation the differences between Blacks and whites in terms of the rates at which they participate are often very modest. As his Table 3 indicates, the gap in turnout as a proportion of eligible population has in some elections been almost zero. In 2008, Black turnout was 60.6% of Black CVAP and non-Hispanic white turnout was 60.9% of non-Hispanic white CVAP. In 2012, Black turnout was 55.0% of Black CVAP and non-Hispanic white turnout was 56.5 % of non-Hispanic white CVAP. The turnout gap was modestly higher in the other elections, but the point is that whatever the potential barriers, socioeconomic or otherwise, to Black voter participation, Black voter participation rates in Georgia are very similar to white voter participation rates, and Black voters have demonstrated the ability to essentially match white voter participation rates in more than one previous election cycle.

The comparisons cited above are in terms of what proportion of the eligible population actually turns out to vote. This measure incorporates any differential in registration, as only registered voters are allowed to vote. Dr. Mayer focuses on the proportion of registered voters that turned out, as reported in his Table 2 and the remaining Tables. There are somewhat larger gaps in participation in his Table 2, where in 2008, for example, Black turnout was 75.8% of Black registrants and non-Hispanic white turnout was 77.4 % of non-Hispanic white registrants. While there is a modest gap, essentially three-quarters of both groups of registered voters turned out, again despite whatever socioeconomic difference existed. In addition, focusing on share of registrants, rather than share of the eligible population (CVAP), is problematic in part because the proportion of registered voters that turnout does not capture any differences in the rates of registration among white and Black voters.

Election Analysis Replication 2012, 2014, and 2016

To assess the degree of racially polarized voting Dr. Palmer analyzes three recent election cycles (2012, 2014, and 2016) in what he defines as the 'focus area' region around Congressional District 12. This focus area includes District 12 and the adjacent area of District 1 and District 8, as well as the southern portion of District 10, excluding the northern counties that are included in the Atlanta or Athens MSAs. In each election year he includes an Ecological Inference analysis of the voting patterns of groups of voters that have self-identified on their voter registration forms as Black, white, or other. The statewide elections analyzed include elections for U.S. President, U.S. Senate, Governor, Lieutenant Governor, Secretary of State, Attorney General, Commissioner of Agriculture, Commissioner of Insurance, Commissioner of Labor, and School Superintendent, in the respective years in which those offices are on the ballot and include a major party contest – that is both a Democratic and a Republican candidate.

The scripts and data provided by Dr. Palmer allow for an independent replication of the EI analysis that provides the results he reports in Tables 1 through Table 5, and his Figure 2 through Figure 6 (pages 10-19 or his report). That replication matches his reported estimates for each election contest and each racial category. Given that, I will discuss these estimates using the validated numerical results provided in those tables in Dr. Palmer's report.

This analysis of the statewide (exogenous) elections is reported in Dr. Palmer's Table 5 for the entire combined geography and yields a total of 12 individual contests. In Table 1 through Table 4 of his report, Dr. Palmer includes analysis for this same set of statewide exogenous elections along with analysis for the U.S. House contest, but here the analysis is based

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on only the geography of each of the four congressional districts, and there is a separate table for each district.

This district level analysis yields a total of 15 contests in Dr. Palmer's Table 1 for CD 12 (where the House seat was contested in each of the three years). Dr. Palmer's Table 2 for CD 1 has a total of 14 contests (the Republican incumbent had no Democratic opponent in 2016). Dr. Palmer's Table 3 for CD 8 has a total of 13 contests (the Republican incumbent had no Democratic opponent in 2012 or in 2014). Dr. Palmer's Table 4 for CD 10 has a total of 13 contests (the Republican candidate had no Democratic opponent in 2012 or in 2014). The Palmer's Table 4 for CD 10 has a total of 13 contests (the Republican candidate had no Democratic opponent in 2012 or in 2014). Taken together Dr. Palmer's Table 1 through Table 5 yield a total of 67 individual contests.

Dr. Palmer proceeds by using his EI election analysis to identify the candidate of choice of Black voters in each of these 67 contests. The race of each candidate is indicated in Dr. Palmer's Tables 1 through 5 with an asterisk by the name of each Black candidate. Beyond this labeling, there is no discussion of the impact, if any, that the race of the candidate might have on the behavior of Black or white voters in these contests. While he indicates the race of candidates, Dr. Palmer provides no indication at all of the party affiliation of the candidates in these contests, provides no party labels in any of his tables, and does not mention the party of candidates in his discussion of the results of his analysis.

Dr. Palmer does recognize that the party affiliation of candidates is important here, as he excludes contests that do not include both a Republican and a Democratic candidate. In addition, he excludes any votes cast for third party or write-in candidates from his analysis. If we do consider the party affiliation of the candidates, the pattern over these election contests is stark. In all 67 contests, the candidate of choice of Black voters is the Democrat and the candidate of choice of white voters is the Republican.

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In contrast, the race of the candidates does not appear to be particularly influential. Black voter support for Black Democratic candidates is certainly high, as Dr. Palmer's Figure 2 through Figure 6 clearly show, but those same figures also show Black voter support in the same high range for white Democratic candidates as it is for Black Democratic candidates. Similarly, white voter support for Black Democratic candidates is very low, but white voter support for white Democratic candidates is also very low.

Election Analysis 2018

Dr. Palmer's report covered elections up to the 2016 cycle. The 2018 elections occurred after his report was produced, and provide an additional set of contests that can be added here. The tables below in Appendix 1 provide results of a series of EI estimations that were conducted using the same script that Dr. Palmer utilized for his analysis of 2012-2016 elections. In addition, in order to simplify comparison, the tables below are formatted to match those for the 2012-2016 elections in Dr. Palmer's report. Table 1 provides the EI estimates for the 2018 elections in CD 1, including the statewide contests and the CD 1 House contest. Table 2 provides the EI estimates for the 2018 elections in CD 8, here there are only the statewide contests as the CD 8 House contest was uncontested in 2018. Table 3 provides the EI estimates for the 2018 elections in CD 10, including the statewide contests and the CD 10 House contest. Table 4 provides the EI estimates for the 2018 elections in CD 12, including the statewide contests and the CD 10 House contest. Table 4 provides the EI estimates for the 2018 elections in CD 12, including the statewide contests and the CD 10 House contest. Table 5 provides the EI estimates for the 2018 elections in to 'focus area' as defined by Dr. Palmer to include all of CD1, CD 8, CD 12, and the southern portion of CD 10. Because it combines multiple House districts, Table 5 includes only the statewide contests. In addition to the 2018 tables that mirror the tables that Dr. Palmer produced for 2012-

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2016, I have provided one additional 2018 table here that covers all of the State of Georgia. The full statewide results for the 2018 statewide elections are provided in Table 6 below.

Taken together, the 2018 results produced in Tables 1-6 add an additional 51 sets of EI estimates to add to the 67 sets of estimates provided by the elections in 2012, 2014, and 2016. Like those earlier estimates, in 51 of the 2018 estimates the candidate of choice of Black voters is the Democrat and the candidate of choice of white voters is the Republican. Taken together, the results for 2012-2018 election provide a total of 118 sets of estimates and in all 118 the candidate of choice of Black voters is the Democrat and the condidate set of choice of white voters is the candidate of choice of white voters is the Republican.

Again, in contrast, the race of the candidates does not appear to be particularly influential. Black voter support for Black Democratic candidates is certainly high, in 2018 just as it was in 2012-2016, but Black voter support is in the same high range for white Democratic candidates as it is for Black Democratic candidates. Similarly, white voter support for Black Democratic candidates is low, in 2018 just as it was in 2012-2016, but white voter support for white Democratic candidates is low, in 2018 just as it was in 2012-2016, but white voter support for white Democratic candidates is also low.

We can see this pattern clearly when we compare the results for the two statewide contests at the top of the statewide ballot in 2018 – the contests for Governor and Lt. Governor. Stacy Abrams, the Democratic candidate for Governor, was Black, while Sarah Amico, the Democratic candidate for Lt. Governor, was white. Based on the EI estimates, Black voter support for both Abrams and Amico was in the range of 97-98%, with support for Abrams slightly higher in each case. In the combined area analysis reported in Table 5, Abrams' share of the Black vote was higher than Amico's share of the Black vote by .5% (one half of one percent). White voters support for Abrams and Amico was also very similar, and as was the

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case for Black voters, white voter support for Abrams was slightly higher than white voter support for Amico in each case, with white support for Abrams in the combined area analysis reported in Table 5 higher than white support for Amico by .6% (six-tenths of one percent).

Similarly, in the full state analysis reported in Table 6, Abrams' share of the Black vote was higher than Amico's share of the Black vote by .4% (four-tenths of one percent). White voters support for Abrams and Amico was also very similar, and as was the case for Black voters, white voter support for Abrams was slightly higher than white voter support for Amico in each case, with white support for Abrams in the full state analysis reported in Table 6 higher than white support for Amico by 1.3% (one and three-tenths percent).

We see a similar pattern at the bottom of the statewide ballot in the contests for School Superintendent, Labor Commissioner, and Insurance Commissioner. Otha Thornton, the Democratic candidate for School Superintendent, was Black, as was Janice Laws, the Democratic candidate for Insurance commissioner. Between them on the ballot was Richard Keatley, the white Democratic candidate for Labor Commissioner. Black voter support for the all three Democrats was very high. In the combined area analysis reported in Table 5, Thornton's share of the Black vote was almost identical to Keatley's share of the Black vote, only slightly lower by .1% (one tenth of one percent), and in turn Laws' share of the Black vote was only slightly higher than Keatley's share of the Black vote by .2% (two-tenths of one percent). White voter support for Thornton and Keatley was also very similar, with white voter support for Thornton in the combined area analysis reported in Table 5 only slightly lower than white support for Keatley by .5% (five tenths of one percent), and in turn Laws' share of the white vote was only slightly higher than Keatley's share of the white vote by .4% (four-tenths of one percent).

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Similarly, in the full state analysis reported in Table 6, Thornton's share of the Black vote was actually identical to Keatley's share of the Black vote, and Laws' share of the Black vote was only slightly higher than Keatley's by .5% (one-half of one percent). White voter support for Thornton and Keatley was also very similar, with white voter support for Thornton in the combined area analysis reported in Table 5 only slightly lower than white support for Keatley by .7% (seven tenths of one percent), and in turn Laws' share of the white vote was only slightly higher than Keatley's share of the white vote by 1.1% (one and one-tenth percent).

In his report Dr. Palmer summarizes his conclusion about racially polarized vote by stating that "these results demonstrate high levels of racially polarized voting in CD 12 and its surroundings. The average difference in support for the African American candidate of choice in each district was 86.5 percentage points in CD 12, 82.2 percentage points in CD 1, 87.7 percentage points in CD 8, 88.4 percentage points in CD 10, and 87.7 percentage points in the focus area" (page 7). These are indeed large differences in levels of support, and the differences in levels of support in the 2018 contests is in the same 80% range. However, as the discussion above indicates these are differences tied to the party of the candidate, not the race of the candidate. Party polarization, in response to the party labels on the ballot, is in the 80% range across all these elections, regardless of whether the contest involves a Black candidate versus a white candidate, or two white candidates. In contrast, the response of both Black and white voters to the race of the candidates is extremely modest and often inconsistent with a racial explanation.

Summary Conclusions

Dr. Mayer provides information about relative socioeconomic differences between Blacks and non-Hispanic whites in Georgia. However, the fact that in both 2008 and 2012 the proportion of eligible Blacks that participated in the election was at near parity with the proportion of eligible whites that participated suggests that these differences have not prevented Blacks from voting at rates similar to those of whites in more than one election over the last ten years.

Both the election analysis report by Dr. Palmer for 2012-2016, and the 2018 election analysis provided here show that Black voters cohesively support Democratic candidates, regardless of whether those candidates are Black or white. Similarly, white voters cohesively vote for Republican candidates, and in opposition to Democratic candidates, regardless of whether those Democratic candidates are Black or white. Thus it is cohesive Black voter support for *Democratic* candidates, and white voter support for *Republican* candidates that the election analysis reveals, not cohesive Black voter support for *Black* candidates and white voter support for *white* candidates. In short, the election analysis provided here and in Dr. Palmer's report demonstrates that *party* polarization, rather than *racial* polarization, is the best explanation for the voting patterns in these House districts.

January 24, 2019

John R. Alford, Ph.D

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APPENDIX 1

2018 Election Tables

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	Table 1: 2018 Ecological Inference Estimates, CD 1							
		Black Cand.	White Cand.	% Voting f	for Black Candidate of Ch	oice		
Year	Contest	of Choice	of Choice	Black	White	Other		
2018	Governor	Abrams* •D	Kemp -R	0.973 (0.959, 0.983)	0.163 (0.153, 0.175)	0.882 (0.834, 0.919)		
	Lt. Governor	Amico - D	Duncan -R	0.969 (0.954, 0.980)	0.156 (0.144, 0.171)	0.858 (0.790, 0.906)		
	Sec. of State	Barrow •D	Raffensperger -R	0.971 (0.956, 0.983)	0.201 (0.190, 0.213)	0.883 (0.827, 0.927)		
	Attorney General	Bailey - D	Carr -R	0.986 (0.980, 0.991)	0.073 (0.064, 0.083)	0.919 (0.873, 0.954)		
	Com. Agriculture	Swann -D	Black -R	0.970 (0.955, 0.981)	0.141 (0.129, 0.154)	0.811 (0.741, 0.871)		
	Com. Insurance	Laws* •D	Beck -R	0.973 (0.958, 0.984)	0.148 (0.136, 0.162)	0.859 (0.798, 0.908)		
	Com. Labor	Keatley -D	Butler -R	0.972 (0.957, 0.982)	0.141 (0.130, 0.152)	0.854 (0.798, 0.905)		
	School Super.	Thorton* -D	Woods -R	0.972 (0.958, 0.982)	0.140 (0.128, 0.153)	0.842 (0.779, 0.895)		
	U.S. House	Ring •D	Carter -R	0.970 (0.956, 0.981)	0.152 (0.141, 0.165)	0.829 (0.764, 0.882)		

* indicates Black candidates.



	Table 2: 2018 Ecological Inference Estimates, CD 8						
		Black Cand.	White Cand.	% Voting f	or Black Candidate of Ch	oice	
Year	Contest	of Choice	of Choice	Black	White	Other	
2018	Governor	Abrams* -D	Kemp -R	0.976 (0.963, 0.984)	0.065 (0.059, 0.073)	0.916 (0.868, 0.952)	
	Lt. Governor	Amico - D	Duncan -R	0.971 (0.957, 0.981)	0.060 (0.054, 0.068)	0.903 (0.843, 0.948)	
	Sec. of State	Barrow •D	Raffensperger -R	0.972 (0.958, 0.982)	0.086 (0.080, 0.094)	0.932 (0.881, 0.964)	
	Attorney General	Bailey - D	Carr -R	0.973 (0.961, 0.983)	0.066 (0.060, 0.074)	0.922 (0.859, 0.960)	
	Com. Agriculture	Swann •D	Black -R	0.969 (0.955, 0.979)	0.043 (0.037, 0.049)	0.925 (0.869, 0.962)	
	Com. Insurance	Laws* -D	Beck -R	0.972 (0.960, 0.982)	0.058 (0.052, 0.065)	0.917 (0.859, 0.958)	
	Com. Labor	Keatley -D	Butler -R	0.972 (0.960, 0.982)	0.051 (0.046, 0.058)	0.925 (0.862, 0.963)	
	School Super.	Thorton* •D	Woods -R	0.974 (0.963, 0.983)	0.044 (0.039, 0.050)	0.911 (0.857, 0.949)	
	U.S. House (unconte	ested)					
			* indicates	Black candidates.			

		Table 3	2018 Ecological	Inference Estimates	, CD 10	
		Black Cand.	White Cand.	% Voting fo	or Black Candidate of Ch	oice
Year	Contest	of Choice	of Choice	Black	White	Other
2018	Governor	Abrams* -D	Kemp ·R	0.971 (0.954, 0.983)	0.153 (0.145, 0.162)	0.830 (0.769, 0.883)
	Lt. Governor	Amico - D	Duncan -R	0.965 (0.945, 0.979)	0.148 (0.140, 0.158)	0.808 (0.739, 0.869)
	Sec. of State	Barrow -D	Raffensperger -R	0.964 (0.938, 0.980)	0.187 (0.177, 0.201)	0.796 (0.699, 0.872)
	Attorney General	Bailey - D	Carr •R	0.963 (0.943, 0.978)	0.149 (0.141, 0.159)	0.847 (0.780, 0.899)
	Com. Agriculture	Swann -D	Black -R	0.965 (0.944, 0.979)	0.125 (0.118, 0.135)	0.792 (0.719, 0.853)
	Com. Insurance	Laws* -D	Beck -R	0.971 (0.951, 0.984)	0.143 (0.135, 0.153)	0.813 (0.740, 0.869)
	Com. Labor	Keatley •D	Butler -R	0.962 (0.943, 0.977)	0.141 (0.132, 0.151)	0.795 (0.718, 0.860)
	School Super.	Thorton* -D	Woods ·R	0.966 (0.948, 0.980)	0.135 (0.127, 0.144)	0.792 (0.724, 0.854)
	U.S. House	Johnson-Green* -D	Hice -R	0.964 (0.945, 0.978)	0.145 (0.137, 0.155)	0.813 (0.741, 0.869)
	* indicates Black ca	indidates.				
				d		

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		Tabl	e 4: 2018 Ecological	Inference Estimates	s, CD 12	
		Black Cand.	White Cand. of Choice	% Voting for Black Candidate of Choice		
Year	Contest	of Choice		Black	White	Other
2018	Governor	Abrams* -D	Kemp ·R	0.982 (0.974, 0.988)	0.063 (0.057, 0.069)	0.956 (0.933, 0.974)
	Lt. Governor	Amico • D	Ouncan ·R	0.978 (0.969, 0.985)	0.055 (0.049, 0.061)	0.951 (0.921, 0.970)
	Sec. of State	Barrow -D	Raffensperger -R	0.979 (0.968, 0.987)	0.137 (0.130, 0.144)	0.952 (0.926, 0.973)
	Attorney General	Bailey • D	Carr ·R	0.979 (0.969, 0.986)	0.064 (0.058, 0.071)	0.946 (0.914, 0.967)
	Com. Agriculture	Swann -D	Black -R	0.974 (0.965, 0.982)	0.041 (0.036, 0.047)	0.940 (0.906, 0.965)
	Com. Insurance	Laws* -D	Beck -R	0.980 (0.971, 0.986)	0.048 (0.043, 0.054)	0.954 (0.932, 0.971)
	Com. Labor	Keatley -D	Butler -R	0.977 (0.968, 0.984)	0.049 (0.044, 0.056)	0.934 (0.901, 0.959)
	School Super.	Thorton* -D	Woods -R	0.980 (0.972, 0.987)	0.043 (0.037, 0.049)	0.930 (0.899, 0.954)
	U.S. House	Johnson* -D	Allen -R	0.975 (0.966, 0.983)	0.047 (0.042, 0.054)	0.919 (0.881, 0.949)
	* indicates Black ca	ndidates.				

Black Cand. White Cand.			% Voting for Black Candidate of Choice		
Year Contest	of Choice	of Choice	Black	White	Other
2018 Governor	Abrams* •D	Kemp -R	0.986 (0.982, 0.989)	0.104 (0.101, 0.108)	0.924 (0.907, 0.939)
Lt. Governor	Amico • D	Duncan -R	0.981 (0.976, 0.985)	0.098 (0.095, 0.102)	0.907 (0.884, 0.927)
Sec. of State	Barrow -D	Raffensperger -R	0.983 (0.978, 0.988)	0.145 (0.141, 0.150)	0.917 (0.894, 0.939)
Attorney General	Bailey - D	Carr -R	0.982 (0.977, 0.986)	0.101 (0.098, 0.104)	0.929 (0.912, 0.944)
Com. Agriculture	Swann •D	Black -R	0.978 (0.972, 0.983)	0.083 (0.079, 0.087)	0.883 (0.855, 0.908
Com. Insurance	Laws* •D	Beck -R	0.983 (0.978, 0.986)	0.093 (0.090, 0.096)	0.919 (0.900, 0.935
Com. Labor	Keatley -D	Butler -R	0.981 (0.977, 0.985)	0.089 (0.086, 0.093)	0.903 (0.880, 0.923
School Super.	Thorton* -D	Woods -R	0.980 (0.975, 0.984)	0.084 (0.081, 0.088)	0.904 (0.884, 0.922



	Table 6: 2018 Ecological Inference Estimates, Entire State of Georgia						
	Black Cand.	White Cano.	% Voting for Black Candidate of Choice				
Year Contest	of Choice	of Choice	Black	White	Other		
2018 Governor	Abrams* •D	Kemp R	0.992 (0.991, 0.994)	0.165 (0.162, 0.168)	0.959 (0.953, 0.964)		
Lt. Governor	Amico - D	Duncan -R	0.988 (0.986, 0.990)	0.152 (0.149, 0.155)	0.945 (0.938, 0.952)		
Sec. of State	Barrow •D	Raffensperger -R	0.991 (0.989, 0.992)	0.173 (0.170, 0.176)	0.954 (0.948, 0.961)		
Attorney General	Bailey - D	Carr ·R	0.987 (0.985, 0.989)	0.153 (0.150, 0.156)	0.947 (0.939, 0.954)		
Com. Agriculture	Swann •D	Black ·R	0.979 (0.977, 0.982)	0.129 (0.126, 0.132)	0.938 (0.929, 0.945)		
Com. Insurance	Laws* -D	Beck -R	0.990 (0.988, 0.992)	0.147 (0.145, 0.150)	0.949 (0.943, 0.955)		
Com. Labor	Keatley ·D	Butler -R	0.985 (0.983, 0.987)	0.136 (0.134, 0.139)	0.939 (0.931, 0.946)		
School Super.	Thorton* •D	Woods -R	0.985 (0.983, 0.987)	0.129 (0.126, 0.132)	0.929 (0.920, 0.938)		

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APPENDIX 2

John R. Alford Curriculum Vitae January, 2019

Dept. of Political Science Rice University - MS-24 P.O. Box 1892 Houston, Texas 77251-1892 713-348-3364 jra@rice.edu

Employment:

Full Professor, Rice University, 2015 to present. Associate Professor, Rice University, 1985-2015. Assistant Professor, University of Georgia, 1981-1985. Instructor, Oakland University, 1980-1981. Teaching-Research Fellow, University of Iowa, 1977-1980. Research Associate, Institute for Urban Studies, Houston, Texas, 1976-1977.

Education:

Ph.D., University of Iowa, Political Science, 1981.
M.A., University of Iowa, Political Science, 1980.
M.P.A., University of Houston, Public Administration, 1977.
B.S., University of Houston, Political Science, 1975.

Books:

Predisposed: Liberals, Conservatives, and the Biology of Political Differences. New York: Routledge, 2013. Co-authors, John R. Hibbing and Kevin B. Smith.

Articles:

"Intuitive ethics and political orientations: Testing moral foundations as a theory of political ideology." with Kevin Smith, John Hibbing, Nicholas Martin, and Peter Hatemi. **American Journal of Political Science**. (April, 2017).

"The Genetic and Environmental Foundations of Political, Psychological, Social, and Economic Behaviors: A Panel Study of Twins and Families." with Peter Hatemi, Kevin Smith, and John Hibbing. Twin Research and Human Genetics. (May, 2015.)

"Liberals and conservatives: Non-convertible currencies." with John R. Hibbing and Kevin B. Smith. Behavioral and Brain Sciences (January, 2015).

"Non-Political Images Evoke Neural Predictors Of Political Ideology." with Woo-Young Ahn, Kenneth T. Kishida, Xiaosi Gu, Terry Lohrenz, Ann Harvey, Kevin Smith, Gideon Yaffe, John Hibbing, Peter Dayan, P. Read Montague. **Current Biology**. (November, 2014).

John R. Alford

"Cortisol and Politics: Variance in Voting Behavior is Predicted by Baseline Cortisol Levels." with Jeffrey French, Kevin Smith, Adam Guck, Andrew Birnie, and John Hibbing. Physiology & Behavior. (June, 2014).

"Differences in Negativity Bias Underlie Variations in Political Ideology." with Kevin B. Smith and John R. Hibbing. Behavioral and Brain Sciences. (June, 2014).

"Negativity bias and political preferences: A response to commentators Response." with Kevin B. Smith and John R. Hibbing. Behavioral and Brain Sciences. (June, 2014).

"Genetic and Environmental Transmission of Political Orientations." with Carolyn L. Funk, Matthew Hibbing, Kevin B. Smith, Nicholas R. Eaton, Robert F. Krueger, Lindon J. Eaves, John R. Hibbing. **Political Psychology**, (December, 2013).

"Biology, Ideology, and Epistemology: How Do We Know Political Attitudes Are Inherited and Why Should We Care?" with Kevin Smith, Peter K. Hatemi, Lindon J. Eaves, Carolyn Funk, and John R. Hibbing. American Journal of Political Science. (January, 2012)

"Disgust Sensitivity and the Neurophysiology of Left-Right Political Orientations." with Kevin Smith, John Hibbing, Douglas Oxley, and Matthew Hibbing, PlosONE, (October, 2011).

"Linking Genetics and Political Attitudes: Re-Conceptualizing Political Ideology." with Kevin Smith, John Hibbing, Douglas Oxley, and Matthew Hibbing, Political Psychology, (June, 2011).

"The Politics of Mate Choice." with Peter Hatemi, John R. Hibbing, Nicholas Martin and Lindon Eaves, Journal of Politics, (March, 2011).

"Not by Twins Alone: Using the Extended Twin Family Design to Investigate the Genetic Basis of Political Beliefs" with Peter Hatemi, John Hibbing, Sarah Medland, Matthew Keller, Kevin Smith, Nicholas Martin, and Lindon Eaves, American Journal of Political Science, (July, 2010).

"The Ultimate Source of Political Opinions: Genes and the Environment" with John R. Hibbing in Understanding Public Opinion, 3rd Edition eds. Barbara Norrander and Clyde Wilcox, Washington D.C.: CQ Press, (2010).

"Is There a 'Party' in your Genes" with Peter Hatemi, John R. Hibbing, Nicholas Martin and Lindon Eaves, Political Research Quarterly, (September, 2009).

"Twin Studies, Molecular Genetics, Politics, and Tolerance: A Response to Beckwith and Morris" with John R. Hibbing and Cary Funk, **Perspectives on Politics**, (December, 2008). This is a solicited response to a critique of our 2005 APSR article "Are Political Orientations Genetically Transmitted?"

"Political Attitudes Vary with Physiological Traits" with Douglas R. Oxley, Kevin B. Smith, Matthew V. Hibbing, Jennifer L. Miller, Mario Scalora, Peter K. Hatemi, and John R. Hibbing, Science, (September 19, 2008).

"The New Empirical Biopolitics" with John R. Hibbing, Annual Review of Political Science, (June, 2008).

"Beyond Liberals and Conservatives to Political Genotypes and Phenotypes" with John R. Hibbing and Cary Funk, **Perspectives on Politics**, (June, 2008). This is a solicited response to a critique of our 2005 APSR article "Are Political Orientations Genetically Transmitted?" Department of Political Science

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"Personal, Interpersonal, and Political Temperaments" with John R. Hibbing, Annals of the American Academy of Political and Social Science, (November, 2007).

"Is Politics in our Genes?" with John R. Hibbing, Tidsskriftet Politik, (February, 2007).

"Biology and Rational Choice" with John R. Hibbing, The Political Economist, (Fall, 2005)

"Are Political Orientations Genetically Transmitted?" with John R. Hibbing and Carolyn Funk, American Political Science Review, (May, 2005). (The main findings table from this article has been reprinted in two college level text books - Psychology, 9th ed. and Invitation to Psychology 4th ed. both by Wade and Tavris, Prentice Hall, 2007).

"The Origin of Politics: An Evolutionary Theory of Political Behavior" with John R. Hibbing, **Perspectives** on **Politics**, (December, 2004).

"Accepting Authoritative Decisions: Humans as Wary Cooperators" with John R. Hibbing, American Journal of Political Science, (January, 2004).

"Electoral Convergence of the Two Houses of Congress" with John R. Hibbing, in **The Exceptional Senate**, ed. Bruce Oppenheimer, Columbus: Ohio State University Press, (2002).

"We're All in this Together: The Decline of Trust in Government, 1958-1996." in What is it About Government that Americans Dislike?, eds. John Hibbing and Beth Theiss-Morse, Cambridge: Cambridge University Press, (2001).

"The 2000 Census and the New Redistricting," Texas State Bar Association School Law Section Newsletter, (July, 2000).

"Overdraft: The Political Cost of Congressional Malfeasance" with Holly Teeters, Dan Ward, and Rick Wilson, Journal of Politics (August, 1994).

"Personal and Partisan Advantage in U.S. Congressional Elections, 1846-1990" with David W. Brady, in Congress Reconsidered 5th edition, eds. Larry Dodd and Bruce Oppenheimer, CQ Press, (1993).

"The 1990 Congressional Election Results and the Fallacy that They Embodied an Anti-Incumbent Mood" with John R. Hibbing, **PS** 25 (June, 1992).

"Constituency Population and Representation in the United States Senate" with John R. Hibbing. Legislative Studies Quarterly, (November, 1990).

"Editors' Introduction: Electing the U.S. Senate" with Bruce I. Oppenheimer. Legislative Studies Quarterly, (November, 1990).

"Personal and Partisan Advantage in U.S. Congressional Elections, 1846-1990" with David W. Brady, in **Congress Reconsidered** 4th edition, eds. Larry Dodd and Bruce Oppenheimer, CQ Press, (1988). Reprinted in The Congress of the United States, 1789-1989, ed. Joel Silby, Carlson Publishing Inc., (1991), and in The Quest for Office, eds. Wayne and Wilcox, St. Martins Press, (1991).

"Can Government Regulate Fertility? An Assessment of Pro-natalist Policy in Eastern Europe" with Jerome Legge. The Western Political Quarterly (December, 1986).

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"Partisanship and Voting" with James Campbell, Mary Munro, and Bruce Campbell, in Research in Micropolitics. Volume 1 - Voting Behavior. Samuel Long, ed. JAI Press, (1986).

"Economic Conditions and Individual Vote in the Federal Republic of Germany" with Jerome S. Legge. Journal of Politics (November, 1984).

"Television Markets and Congressional Elections" with James Campbell and Keith Henry. Legislative Studies Quarterly (November, 1984).

"Economic Conditions and the Forgotten Side of Congress: A Foray into U.S. Senate Elections" with John R. Hibbing, British Journal of Political Science (October, 1982).

"Increased Incumbency Advantage in the House" with John R. Hibbing, Journal of Politics (November, 1981). Reprinted in The Congress of the United States, 1789-1989, Carlson Publishing Inc., (1991).

"The Electoral Impact of Economic Conditions: Who is Held Responsible?" with John R. Hibbing, American Journal of Political Science (August, 1981).

"Comment on Increased Incumbency Advantage" with John R. Hibbing, Refereed communication: American Political Science Review (March, 1981).

"Can Government Regulate Safety? The Coal Mine Example" with Michael Lewis-Beck, American Political OMDEMOCRAC Science Review (September, 1980).

Awards and Honors:

CQ Press Award - 1988, honoring the outstanding paper in legislative politics presented at the 1987 Annual Meeting of the American Political Science Association. Awarded for "The Demise of the Upper House and the Rise of the Senate: Electoral Responsiveness in the United States Senate" with John Hibbing.

Research Grants:

National Science Foundation, 2009-2011, "Identifying the Biological Influences on Political Temperaments", with John Hibbing, Kevin Smith, Kim Espy, Nicolas Martin and Read Montague. This is a collaborative project involving Rice, University of Nebraska, Baylor College of Medicine, and Queensland Institute for Medical Research.

National Science Foundation, 2007-2010, "Genes and Politics: Providing the Necessary Data", with John Hibbing, Kevin Smith, and Lindon Eaves. This is a collaborative project involving Rice, University of Nebraska, Virginia Commonwealth University, and the University of Minnesota.

National Science Foundation, 2007-2010, "Investigating the Genetic Basis of Economic Behavior", with John Hibbing and Kevin Smith. This is a collaborative project involving Rice, University of Nebraska, Virginia Commonwealth University, and the Queensland Institute of Medical Research.

Rice University Faculty Initiatives Fund, 2007-2009, "The Biological Substrates of Political Behavior". This is in assistance of a collaborative project involving Rice, Baylor College of Medicine, Queensland Institute of John R. Alford

Medical Research, University of Nebraska, Virginia Commonwealth University, and the University of Minnesota.

National Science Foundation, 2004-2006, "Decision-Making on Behalf of Others", with John Hibbing. This is a collaborative project involving Rice and the University of Nebraska.

National Science Foundation, 2001-2002, dissertation grant for Kevin Arceneaux, "Doctoral Dissertation Research in Political Science: Voting Behavior in the Context of U.S. Federalism."

National Science Foundation, 2000-2001, dissertation grant for Stacy Ulbig, "Doctoral Dissertation Research in Political Science: Sub-national Contextual Influences on Political Trust."

National Science Foundation, 1999-2000, dissertation grant for Richard Engstrom, "Doctoral Dissertation Research in Political Science: Electoral District Structure and Political Behavior."

Rice University Research Grant, 1985, Recent Trends in British Parliamentary Elections.

Faculty Research Grants Program, University of Georgia, Summer, 1982, Impact of Media Structure on -PACTDOCKE Congressional Elections, with James Campbell.

Papers Presented:

"The Physiological Basis of Political Temperaments" 6th European Consortium for Political Research General Conference, Reykjavik, Iceland (2011), with Kevin Smith, and John Hibbing.

"Identifying the Biological Influences on Political Temperaments" National Science Foundation Annual Human Social Dynamics Meeting (2010), with John Hibbing, Kimberly Espy, Nicholas Martin, Read Montague, and Kevin B. Smith.

"Political Orientations May Be Related to Detection of the Odor of Androstenone" Annual meeting of the Midwest Political Science Association, Chicago, IL (2010), with Kevin Smith, Amanda Balzer, Michael Gruszczynski, Carly M. Jacobs, and John Hibbing.

"Toward a Modern View of Political Man: Genetic and Environmental Transmission of Political Orientations from Attitude Intensity to Political Participation" Annual meeting of the American Political Science Association, Washington, DC (2010), with Carolyn Funk, Kevin Smith, and John Hibbing.

"Genetic and Environmental Transmission of Political Involvement from Attitude Intensity to Political Participation" Annual meeting of the International Society for Political Psychology, San Francisco, CA (2010), with Carolyn Funk, Kevin Smith, and John Hibbing.

"Are Violations of the EEA Relevant to Political Attitudes and Behaviors?" Annual meeting of the Midwest Political Science Association, Chicago, IL (2010), with Kevin Smith, and John Hibbing.

"The Neural Basis of Representation" Annual meeting of the American Political Science Association, Toronto, Canada (2009), with John Hibbing.

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"Genetic and Environmental Transmission of Value Orientations" Annual meeting of the American Political Science Association, Toronto, Canada (2009), with Carolyn Funk, Kevin Smith, Matthew Hibbing, Pete Hatemi, Robert Krueger, Lindon Eaves, and John Hibbing.

"The Genetic Heritability of Political Orientations: A New Twin Study of Political Attitudes" Annual Meeting of the International Society for Political Psychology, Dublin, Ireland (2009), with John Hibbing, Cary Funk, Kevin Smith, and Peter K Hatemi.

"The Heritability of Value Orientations" Annual meeting of the Behavior Genetics Association, Minneapolis, MN (2009), with Kevin Smith, John Hibbing, Carolyn Funk, Robert Krueger, Peter Hatemi, and Lindon Eaves.

"The Ick Factor: Disgust Sensitivity as a Predictor of Political Attitudes" Annual meeting of the Midwest Political Science Association, Chicago, IL (2009), with Kevin Smith, Douglas Oxley Matthew Hibbing, and John Hibbing.

"The Ideological Animal: The Origins and Implications of Ideology" Annual meeting of the American Political Science Association, Boston, MA (2008), with Kevin Smith, Matthew Hibbing, Douglas Oxley, and John Hibbing.

"The Physiological Differences of Liberals and Conservatives" Annual meeting of the Midwest Political Science Association, Chicago, IL (2008), with Kevin Smith, Douglas Oxley, and John Hibbing.

"Looking for Political Genes: The Influence of Serotonin on Political and Social Values" Annual meeting of the Midwest Political Science Association, Chicago, IL (2008), with Peter Hatemi, Sarah Medland, John Hibbing, and Nicholas Martin.

"Not by Twins Alone: Using the Extended Twin, Family Design to Investigate the Genetic Basis of Political Beliefs" Annual meeting of the American Political Science Association, Chicago, IL (2007), with Peter Hatemi, John Hibbing, Matthew Keller, Nicholas Martin, Sarah Medland, and Lindon Eaves.

"Factorial Association: A generalization of the Fulker between-within model to the multivariate case" Annual meeting of the Behavior Genetics Association, Amsterdam, The Netherlands (2007), with Sarah Medland, Peter Hatemi, John Hibbing, William Coventry, Nicholas Martin, and Michael Neale.

"Not by Twins Alone: Using the Extended Twin Family Design to Investigate the Genetic Basis of Political Beliefs" Annual meeting of the Midwest Political Science Association, Chicago, IL (2007), with Peter Hatemi, John Hibbing, Nicholas Martin, and Lindon Eaves.

"Getting from Genes to Politics: The Connecting Role of Emotion-Reading Capability" Annual Meeting of the International Society for Political Psychology, Portland, OR, (2007.), with John Hibbing.

"The Neurological Basis of Representative Democracy." Hendricks Conference on Political Behavior, Lincoln, NE (2006), with John Hibbing.

"The Neural Basis of Representative Democracy" Annual meeting of the American Political Science Association, Philadelphia, PA (2006), with John Hibbing.

"How are Political Orientations Genetically Transmitted? A Research Agenda" Annual meeting of the Midwest Political Science Association, Chicago Illinois (2006), with John Hibbing.

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"The Politics of Mate Choice" Annual meeting of the Southern Political Science Association, Atlanta, GA (2006), with John Hibbing.

"The Challenge Evolutionary Biology Poses for Rational Choice" Annual meeting of the American Political Science Association, Washington, DC (2005), with John Hibbing and Kevin Smith.

"Decision Making on Behalf of Others" Annual meeting of the American Political Science Association, Washington, DC (2005), with John Hibbing.

"The Source of Political Attitudes and Behavior: Assessing Genetic and Environmental Contributions" Annual meeting of the Midwest Political Science Association, Chicago Illinois (2005), with John Hibbing and Carolyn Funk.

"The Source of Political Attitudes and Behavior: Assessing Genetic and Environmental Contributions" Annual meeting of the American Political Science Association, Chicago Illinois (2004), with John Hibbing and Carolyn Funk.

"Accepting Authoritative Decisions: Humans as Wary Cooperators" Annual Meeting of the Midwest Political Science Association, Chicago, Illinois (2002), with John Hibbing

"Can We Trust the NES Trust Measure?" Annual Meeting of the Midwest Political Science Association, Chicago, Illinois (2001), with Stacy Ulbig.

"The Impact of Organizational Structure on the Production of Social Capital Among Group Members" Annual Meeting of the Southern Political Science Association, Atlanta, Georgia (2000), with Allison Rinden.

"Isolating the Origins of Incumbency Advantage: An Analysis of House Primaries, 1956-1998" Annual Meeting of the Southern Political Science Association, Atlanta, Georgia (2000), with Kevin Arceneaux.

"The Electorally Indistinct Senate," Norman Thomas Conference on Senate Exceptionalism, Vanderbilt University; Nashville, Tennessee; October (1999), with John R. Hibbing.

"Interest Group Participation and Social Capital" Annual Meeting of the Midwest Political Science Association, Chicago, Illinois (1999), with Allison Rinden.

"We're All in this Together: The Decline of Trust in Government, 1958-1996." The Hendricks Symposium, University of Nebraska, Lincoln. (1998)

"Constituency Population and Representation in the United States Senate," Electing the Senate; Houston, Texas; December (1989), with John R. Hibbing.

"The Disparate Electoral Security of House and Senate Incumbents," American Political Science Association Annual Meetings; Atlanta, Georgia; September (1989), with John R. Hibbing.

"Partisan and Incumbent Advantage in House Elections," Annual Meeting of the Southern Political Science Association (1987), with David W. Brady.

"Personal and Party Advantage in U.S. House Elections, 1846-1986" with David W. Brady, 1987 Social Science History Association Meetings.
Department of Political Science

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"The Demise of the Upper House and the Rise of the Senate: Electoral Responsiveness in the United States Senate" with John Hibbing, 1987 Annual Meeting of the American Political Science Association.

"A Comparative Analysis of Economic Voting" with Jerome Legge, 1985 Annual Meeting of the American Political Science Association.

"An Analysis of Economic Conditions and the Individual Vote in Great Britain, 1964-1979" with Jerome Legge, 1985 Annual Meeting of the Western Political Science Association.

"Can Government Regulate Fertility? An Assessment of Pro-natalist Policy in Eastern Europe" with Jerome Legge, 1985 Annual Meeting of the Southwestern Social Science Association.

"Economic Conditions and the Individual Vote in the Federal Republic of Germany" with Jerome S. Legge, 1984 Annual Meeting of the Southern Political Science Association.

"The Conditions Required for Economic Issue Voting" with John R. Hibbing, 1984 Annual Meeting of the Midwest Political Science Association.

"Incumbency Advantage in Senate Elections," 1983 Annual Meeting of the Midwest Political Science Association.

"Television Markets and Congressional Elections: The Impact of Market/District Congruence" with James Campbell and Keith Henry, 1982 Annual Meeting of the Southern Political Science Association.

"Economic Conditions and Senate Elections" with John R. Hibbing, 1982 Annual Meeting of the Midwest Political Science Association. "Pocketbook Voting: Economic Conditions and Individual Level Voting," 1982 Annual Meeting of the American Political Science Association.

"Increased Incumbency Advantage in the House," with John R. Hibbing, 1981 Annual Meeting of the Midwest Political Science Association.

Other Conference Participation:

Roundtable Participant – Closing Round-table on Biopolitics; 2016 UC Merced Conference on Bio-Politics and Political Psychology, Merced, CA.

Roundtable Participant "Genes, Brains, and Core Political Orientations" 2008 Annual Meeting of the Southwestern Political Science Association, Las Vegas.

Roundtable Participant "Politics in the Laboratory" 2007 Annual Meeting of the Southern Political Science Association, New Orleans.

Short Course Lecturer, "What Neuroscience has to Offer Political Science" 2006 Annual Meeting of the American Political Science Association.

Panel chair and discussant, "Neuro-scientific Advances in the Study of Political Science" 2006 Annual Meeting of the American Political Science Association.

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Presentation, "The Twin Study Approach to Assessing Genetic Influences on Political Behavior" Rice Conference on New Methods for Understanding Political Behavior, 2005.

Panel discussant, "The Political Consequences of Redistricting," 2002 Annual Meeting of the American Political Science Association.

Panel discussant, "Race and Redistricting," 1999 Annual Meeting of the Midwest Political Science Association.

Invited participant, "Roundtable on Public Dissatisfaction with American Political Institutions", 1998 Annual Meeting of the Southwestern Social Science Association.

Presentation, "Redistricting in the '90s," Texas Economic and Demographic Association, 1997.

Panel chair, "Congressional Elections," 1992 Annual Meeting of the Southern Political Science Association.

Panel discussant, "Incumbency and Congressional Elections," 1992 Annual Meeting of the American Political Science Association.

Panel chair, "Issues in Legislative Elections," 1991 Annual Meeting of the Midwest Political Science Association.

Panel chair, "Economic Attitudes and Public Policy in Europe," 1990 Annual Meeting of the Southern Political Science Association

Panel discussant, "Retrospective Voting in U.S. Elections," 1990 Annual Meeting of the Midwest Political Science Association.

Co-convener, with Bruce Oppenheimer, of Electing the Senate, a national conference on the NES 1988 Senate Election Study. Funded by the Rice Institute for Policy Analysis, the University of Houston Center for Public Policy, and the National Science Foundation, Houston, Texas, December, 1989.

Invited participant, Understanding Congress: A Bicentennial Research Conference, Washington, D.C., February, 1989.

Invited participant--Hendricks Symposium on the United States Senate, University of Nebraska, Lincoln, Nebraska, October, 1988

Invited participant--Conference on the History of Congress, Stanford University, Stanford, California, June, 1988.

Invited participant, "Roundtable on Partisan Realignment in the 1980's", 1987 Annual Meeting of the Southern Political Science Association.

Professional Activities:

Other Universities:

Invited Speaker, Annual Lecture, Psi Kappa -the Psychology Club at Houston Community College, 2018.

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Invited Speaker, Annual Allman Family Lecture, Dedman College Interdisciplinary Institute, Southern Methodist University, 2016.

Invited Speaker, Annual Lecture, Psi Sigma Alpha – Political Science Dept., Oklahoma State University, 2015.

Invited Lecturer, Department of Political Science, Vanderbilt University, 2014.

Invited Speaker, Annual Lecture, Psi Kappa -the Psychology Club at Houston Community College, 2014.

Invited Speaker, Graduate Student Colloquium, Department of Political Science, University of New Mexico, 2013.

Invited Keynote Speaker, Political Science Alumni Evening, University of Houston, 2013.

Invited Lecturer, Biology and Politics Masters Seminar (John Geer and David Bader), Department of Political Science and Biology Department, Vanderbilt University, 2010.

Invited Lecturer, Biology and Politics Senior Seminar (John Geer and David Bader), Department of Political Science and Biology Department, Vanderbilt University, 2008.

Visiting Fellow, the Hoover Institution, Stanford University, 2007.

Invited Speaker, Joint Political Psychology Graduate Seminar, University of Minnesota, 2007.

Invited Speaker, Department of Political Science, Vandetbilt University, 2006.

Member:

Editorial Board, Journal of Politics, 2007-2008.

Planning Committee for the National Election Studies' Senate Election Study, 1990-92.

Nominations Committee, Social Science History Association, 1988

Reviewer for:

American Journal of Political Science American Political Science Review American Politics Research American Politics Quarterly American Psychologist American Sociological Review Canadian Journal of Political Science Comparative Politics Electoral Studies Evolution and Human Behavior International Studies Quarterly

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Journal of Politics Journal of Urban Affairs Legislative Studies Quarterly National Science Foundation PLoS ONE Policy Studies Review **Political Behavior Political Communication** Political Psychology Political Research Quarterly Public Opinion Quarterly Science Security Studies Social Forces Social Science Quarterly Western Political Quarterly

University Service:

.PACYDOCKET.COM Member, University Parking Committee, 2016-2018. Member, University Benefits Committee, 2013-2016. Internship Director for the Department of Political Science, 2004-2018. Member, University Council, 2012-2013. Invited Speaker, Rice Classroom Connect 2016. Invited Speaker, Glasscock School, 2016. Invited Speaker, Rice Alumni Association, Austin, 2016. Invited Speaker, Rice Alumni Association, New York City, 2016. Invited Speaker, Rice TEDxRiceU, 2013. Invited Speaker, Rice Alumni Association, Atlanta, 2011. Lecturer, Advanced Topics in AP Psychology, Rice University AP Summer Institute, 2009. Scientia Lecture Series: "Politics in Our Genes: The Biology of Ideology" 2008 Invited Speaker, Rice Alumni Association, Seattle, San Francisco and Los Angeles, 2008. Invited Speaker, Rice Alumni Association, Austin, Chicago and Washington, DC, 2006. Invited Speaker, Rice Alumni Association, Dallas and New York, 2005. Director: Rice University Behavioral Research Lab and Social Science Computing Lab, 2005-2006.

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University Official Representative to the Inter-university Consortium for Political and Social Research, 1989-2012. Director: Rice University Social Science Computing Lab, 1989-2004. Member, Rice University Information Technology Access and Security Committee, 2001-2002 Rice University Committee on Computers, Member, 1988-1992, 1995-1996; Chair, 1996-1998, Co-chair, 1999. Acting Chairman, Rice Institute for Policy Analysis, 1991-1992. Divisional Member of the John W. Gardner Dissertation Award Selection Committee, 1998 Social Science Representative to the Educational Sub-committee of the Computer Planning Committee, 1989-1990. Director of Graduate Admissions, Department of Political Science, Rice University, 1986-1988. Co-director, Mellon Workshop: Southern Politics, May, 1988. Guest Lecturer, Mellon Workshop: The U.S. Congress in Historical Perspective, May, 1987 and 1988. Faculty Associate, Hanszen College, Rice University, 1987-1990. Director, Political Data Analysis Center, University of Georgia, 1982-1985.

External Consulting:

Expert Witness, Flores et al. v. Town of Islin, NY, racially polarized voting analysis, 2018.
Expert Witness, Tyson v. Richardson ISD, racially polarized voting analysis, 2018.
Expert Witness, Dwight v. State of Georgia, racially polarized voting analysis, 2018.
Expert Witness, NAACP v. East Ramapo Central School District, racially polarized voting analysis, 2018.
Expert Witness, Thompson v. Kemp, racially polarized voting analysis, 2018.
Expert Witness, Georgia NAACP v. State of Georgia, racially polarized voting analysis, 2018.
Expert Witness, Arismendez v. Coastal Bend College, racially polarized voting analysis, 2017.
Expert Witness, Georgia NAACP v. Gwinnett County, racially polarized voting analysis, 2017.

Expert Witness for the State of Texas, Lopez, et al v. Abbott, a challenge to the current system of statewide atlarge elections for the Texas Supreme Court and the Texas Court of Criminal Appeals, including election analysis, and racially polarized voting analysis, 2017. Department of Political Science

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Expert witness for the State of Texas, Perez, et al v State of Texas (and consolidated cases), challenge to adopted Texas election districts for the US Congress and the Texas House of Representatives, 2011-2017.

Expert Witness for Coppell ISD, Jain v. Coppell ISD, racially polarized voting analysis, 2016.

Consultant, City of Clute, Texas - Demographic analysis and redrawing of election districts, 2015.

Expert Witness for Carrollton-Farmers Branch ISD, Ramos v. Carrollton-Farmers Branch ISD, racially polarized voting analysis, 2015.

Expert Witness for Coahoma County, Columbus Partee, et al. v. Coahoma County, Mississippi, racially polarized voting analysis, 2015.

Expert Witness for the State of Lousianna, Terrebonne Parish NAACP v. Jindal, racially polarized voting analysis, 2015.

Expert Witness for the City of Pasadena, Patino v. City of Pasadena, racially polarized voting analysis, 2015.

Expert Witness for the City of St. Gabriel, York v. City of St. Gabriel, racially polarized voting analysis, 2014.

Consultant, Houston ISD – Incorporation of North Forest ISD, and the consequent redrawing of all nine board member election districts including demographic analysis, board and public hearing presentations and support for pre-clearance submission, 2014.

Expert Witness for Grand Prairie ISD, Rodriguez v. Grand Prairie ISD, racially polarized voting analysis, 2014.

Expert Witness for Irving ISD, Benevides, v Irving ISD, racially polarized voting analysis, 2014.

Expert Witness for Pasadena ISD, Garcia-Somier et al v., racially polarized voting analysis, 2013.

Expert witness for the City of Yakima, Montes v. City of Yakima, challenge to Yakima, Washington At-Large City Council Elections, 2012.

Consultant, Lamar ISD – redraving of all board member election districts including demographic analysis and redrawing of election districts, board and public hearing presentations, and support for pre-clearance submission, 2012.

Expert witness for Harris Co, Rodriguez, et. al. v., challenge to adopted Harris County Commissioners' Court precincts, 2011.

Consultant, City of Baytown – redrawing of all board member election districts including demographic analysis and redrawing of election districts, board and public hearing presentations, and support for pre-clearance submission, 2011.

Consultant, Goose Creek ISD – redrawing of all board member election districts including demographic analysis and redrawing of election districts, board and public hearing presentations, and support for preclearance submission, 2011.

Consultant, San Antonio Water System – Analysis of preclearance issues related to merger with BexarMet Water Authority, 2011.

Expert witness for the State of Texas, Texas v US, preclearance suit for Texas statewide districts, 2011.*

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Department of Political Science

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Expert witness for the State of Texas, Davis v Perry (and consolidated cases), challenge to adopted Texas Senate districts, 2011.

Expert witness for the State of Texas, Perez, et al v State of Texas (and consolidated cases), challenge to adopted Texas statewide districts, 2011-2017.

Expert witness, Fabela, et al. v City of Farmers Branch, Farmers Branch city council at large district challenge, 2011.

Expert Witness, El Paso Apartment Owners Assoc. v City of El Paso, analysis of racial patterns in housing occupancy, 2009.

Expert Witness, Benevides, v Irving ISD, racially polarized voting analysis, 2008-2009.

Expert Witness, Benevides, v City of Irving, racially polarized voting analysis, 2008-2009.

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1	technical aspects of it. I think you made a reference
2	earlier to ecological inference analysis that
3	Dr. Stevenson conducts. Is that correct?
4	A Correct.
5	Q Can you explain what ecological inference is?
6	A Yes, I think. Maybe not in a way that's
7	understandable, but I can I can explain.
8	Q Well, let me rephrase, then.
9	Do you have any objection or any disagreement
10	with the way Dr. Palmer conducted his ecological
11	inference analysis? And I'm speaking specifically of
12	the technical aspects of it, not the ultimate
13	conclusion.
14	A No So our disagreement is not about it
15	sometimes, in these cases, is a disagreement about
16	methodology. Our disagreement is not about
17	methodology. I suspect that we not only agree on
18	really, on what the EI analysis shows we could
19	probably do all this with ER and agree on that as well
20	and possibly even with extreme precinct analysis. So I
21	don't think that in any way this is a methodological
22	dispute.

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1	А	Yeah.
2	Q	would you agree John Barrow was the
3	African-A	merican candidate of choice in that election?
4	А	I would.
5	Q	And would you agree that African-American
6	voters vo	ted cohesively in favor of John Barrow in that
7	election?	
8	А	Yes.
9	Q	And just to streamline this, would you say
10	that is t	rue for all the elections listed in Figures 2
11	to 6?	NOCRAC
12	А	Yes.
13	Q	And would you also say that is true for all
14	of the el	ections listed in Dr. Palmer's rebuttal
15	report?	
16	А	Yes.
17	Q	Would you also say that is true for all the
18	elections	listed in your report?
19	А	If I'm remembering my report correctly, yes.
20	Q	The black voters voted cohesively in favor of
21	a candida	te which was different from the voters from
22	the candi	date that the white voters supported

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1	cohesively?
2	A Okay, so now we're moving so we're talking
3	about black cohesion, right? So clearly, across all
4	these elections, blacks are voting cohesively for a
5	candidate of choice, the Democrat.
6	So we have hundreds or at least a hundred
7	elections here, I think; and every single one of them,
8	it's the same candidate of choice. So, right, this
9	chart demonstrates that black voters in Georgia vote
10	overwhelming for Democratic candidates.
11	Q I was asking about
12	A That's not a question.
13	Q I was asking about cohesion, and so is it
14	A Right, they are
15	Q $\xrightarrow{\sim}$ true in all of these elections that the
16	black voters voted cohesively for their candidate of
17	choice?
18	A Yes.
19	Q And would you agree that the white voters in
20	all of these elections voted cohesively for the
21	opposing candidate?
22	A I think sort of that first one that we see at

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1	other elections take place at the same time. You have
2	candidates that either don't take those positions or
3	maybe take contrary positions
4	Q No, let me clarify the hypothetical.
5	A Okay.
6	Q So the issue now is segregation, and you have
7	one candidate, Candidate A, that is for segregation;
8	you have another candidate, Candidate B, that's against
9	segregation.
10	Candidate A's party, Party A, all of the
11	candidates, the down-ballot and up-ballot candidates in
12	that party also adopt the same position in favor of
13	segregation. Candidate B's party, up-ballot and
14	down-ballot, all the party all of the candidates
15	adopt the same position in opposition to segregation.
16	The minority group uniformly votes for
17	Candidate B and other candidates from Party B with over
18	90 percent of the vote share. And majority voters vote
19	for Candidate A and other candidates within Party A
20	with a 80 percent vote share.
21	Would you find racially polarized voting in
22	that instance?

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1	A It certainly sounds like an instance in which
2	voting might be racially polarized. But, again, if
3	what you established there is that that vote pattern is
4	consistent with the issue positions and the and the
5	preferences on that issue position, an explicitly
6	racial issue, is the positions are compatible with
7	the what you'd expect to be the positions of a
8	racially polarized community, then that certainly is
9	consistent with racially polarized voting.
10	But if it's if they also if that break
11	also breaks along established party lines and people
12	are voting in the in that election on party lines,
13	then with that election alone, you have two competing
14	explanations for that pattern, one racially polarized
15	voting, the other partisan voting.
16	Q So in that case where the difference between
17	the party was support for segregation and opposition to
18	segregation and you also have the minority group and
19	the majority group taking opposite positions in terms
20	of the candidates they support, you still would not
21	have enough under your theory to find racially
22	polarized voting?

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1	black or white.
2	And so we do have that information here, and
3	it's not responsible for this pattern. That's very
4	clear. I assume that Dr I have no idea what
5	Dr. Palmer says beyond what's in his report, but his
6	report doesn't say that that is what these things
7	demonstrate.
8	And so there it is more than just that
9	this report doesn't demonstrate that there's racially
10	polarized voting. It includes a variable that could
11	show racially polarized voting in contrast to party
12	polarized voting, and it shows no evidence of it at
13	all.
14	Q Have you reviewed
15	A So I'm not saying again, I'm not proving
16	there's no racially polarized voting. But I'm also not
17	saying that this analysis doesn't bear in any way on
18	the issue of whether there is racially polarized
19	voting. And specifically what this report tells you is
20	voting here is highly polarized; and at least for one
21	characteristic that, in terms of this area of analysis,
22	has always served as a strong indicator of racially

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John R. Alford, Ph.D.

Page 122 polarized voting, that indicator is not responsible for 1 2 this pattern. 3 Have you reviewed Dr. Hutchings' report? Ο 4 I briefly looked through Dr. Hutchings --А 5 sorry, Dr. Hutchings' initial report at some point, and 6 I flipped through his rebuttal report simply because 7 it -- I looked and it said -- it started off, I think, 8 with "Dr. Alford," which seemed like I should take a 9 look at it, so I did. 10 I believe Dr. Hutchings only submitted one Ο 11 report in this case. Are you potentially thinking of a 12 different case? 13 А If all he's presented was the -- I assumed 14 since there was a rebuttal report, that maybe there had 15 been an initial report. I don't know. So the report 16 that I saw recently, I think was his rebuttal report, 17 and so I'm just assuming there was -- maybe not. Maybe 18 he's just a rebuttal expert, so that would be my 19 misunderstanding. 20 0 Do you have any opinions or are you offering 21 any opinions in response to anything that Dr. Hutchings 22 has discussed in his report?

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1	and I don't my recollection is he didn't cite any of
2	it.
3	Q I don't think that's what his report is
4	about, but assuming that that's your view of what his
5	report is about, are you offering any opinions as to
6	the reason why African-American voters strongly
7	identify with the Democratic party or vote cohesively
8	in favor of Democratic candidates?
9	A So there's a lot of research on the
10	competition between party and racial cues.
11	Dr. Hutchings doesn't seem to be addressing that. He
12	seems to be addressing something about, you know,
13	the some origin of parties, something like that.
14	Q I'LL
15	A I'm not interested I'm not it's not an
16	area I do work in, and I'm not commenting on that with
17	regard to his report. But he prefaces his report by
18	saying that this refutes what's in my report, and then
19	I've been presumptively refutes somehow what's in
20	Dr. Palmer's report.
21	But what's in my report and Dr. Palmer's
22	report is an analysis of voting in these elections, and

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1	it shows that the elections are polarized on the basis
2	of party and that to the extent that race can be
3	measured as a factor in a cue, it's not driving that
4	polarization.
5	So he has an alternative theory about and,
6	again, I skimmed his report because primarily
7	because I was looking for some indication that if he
8	was writing in opposition to my report, that he had
9	done some analysis of voting polarization to show that
10	elections in Georgia in this period are polarized on
11	the basis of something other than party, and my
12	recollection is there is no analysis of that sort in
13	his report.
14	Q I'm going to restate my question just to make
15	sure I get a responsive answer to that.
16	Are you offering any opinions as to the
17	reason why African-American voters strongly identify
18	with the Democratic party or vote cohesively in favor
19	of Democratic candidates?
20	A I've not seen any analysis of that, and I'm
21	not offering an opinion on that.
22	Q You mentioned or you've mentioned racial

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1	but I understand what's she's separating
2	here.
3	And to the extent you separate the two,
4	then the evidence you need to get over the
5	threshold is different than the evidence that
6	you need to demonstrate racial bloc voting.
7	And I think there is a good argument $$
8	since there's a threshold standard, I think
9	there's a good argument for, in fact,
10	bifurcating those two things. But I think if
11	you're going to take that view, as this judge
12	did, then I think you have to be careful
13	about what it is Palmer has demonstrated.
14	There is he has no demonstration of
15	racially polarized voting, and so that's
16	going to be an issue in the case.
17	Q (By Mr. Nkwonta) Fair enough, but you do
18	agree that Drs Dr. Palmer's report and analysis
19	demonstrates white bloc voting that usually defeats the
20	candidate of choice of African-American voters in
21	Georgia?
22	A Yes.

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

PAMELIA DWIGHT, an individual; BENJAMIN DOTSON, an individual; HUDMAN EVANS, SR., an individual; MARION WARREN, an individual; AMANDA HOLLOWELL, an individual; DESTINEE HATCHER, an individual; and WILBERT MAYNOR, an individual,

Plaintiffs,

v.

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

Defendant.

Civil Action No. 1:18-cv-2869-RWS

DECLARATION OF VINCENT L. HUTCHINGS

Vincent L. Hutchings, acting in accordance with 28 U.S.C. § 1746, Fed.

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R. Civ. P. 26(a)(2)(B), and Federal Rule of Evidence 702 and 703, does hereby

declare and say:

I. Executive Summary

1.

I was asked by the Plaintiffs in this case to review the expert report submitted by Dr. John Alford, and to evaluate his suggestion that "party polarization" explains the consistent patterns of racially polarized voting among African American and White voters in Georgia as illustrated in Dr. Palmer's December 3, 2018 report. My overall conclusion is that Dr. Alford's theory is overly simplistic and unsound. Race is the single greatest demographic factor shaping the current partisan divide in the South, and what Dr. Alford refers to as "party polarization" is merely a symptom-and not an independent cause—of racial polarization. This conclusion is derived from four findings highlighted in this declaration. First, I find that African Americans are overwhelmingly aligned with the Democratic Party and non-Hispanic Whites are predominantly identified with the Republican Party. For example, I find that in 2016 an African American in the South with average demographic characteristics (e.g., age, income, education, etc.) has a .89 probability of identifying as a Democrat. In contrast, a White southerner with identical demographic traits has a .8 probability of *not* identifying as a Democrat. Second, racial group membership is a stronger predictor of partisan support than other socio-demographic indicators like gender,

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income, religiosity, etc. Third, southern Whites who embrace racial conservatism are also significantly more likely to identify as Republican. My analyses of 2016 survey data found, for example, that it was extremely unlikely (probability = .04) that a southern White voter with average demographic traits would identify with the Democratic Party if they also believed that Blacks exerted too much political influence in society. Alternative measures of racial conservatism generate similar results. A brief review of my own work and that of other scholars in the field confirms that White racial conservatism is a strong correlate of White southern partisanship. Lastly, I contest the view offered by Dr. Alford that voting patterns in Georgia are polarized by party rather than by race. This characterization presumes that these constructs (i.e., partisan and racial polarization) are independent of one another. This perspective runs counter to the conventional wisdom in political science. Scholarship dating back to at least the 1960's has found that social group (including racial group) memberships are one of the key ingredients in the formation of partisan attachments. And, by all accounts, the most politically influential group memberships are defined by race and ethnicity. As a result, I conclude that partisan polarization is not an independent cause of the divergent voting patterns of African American and White voters, but rather is a symptom of

racial polarization and is informed by racial group membership; therefore it is inextricably linked with race.

II. Credentials

2.

I am currently the Hanes Walton, Jr. Collegiate Professor in the Political Science Department at the University of Michigan. I am also a Research Professor at the Center for Political Studies in the Institute for Social Research at the University of Michigan. I also have a courtesy appointment in the Department of Afro-American and African Studies at the University of Michigan. I received my Ph.D. in political science from the University of California, Los Angeles (UCLA) in 1997. I am an expert in public opinion research and racial politics. I was hired at the University of Michigan in 1996. With the exception of the time when I was a Robert Wood Johnson Health Policy Scholar at Yale University (2000-2002), I have served on the faculty at Michigan my entire career. I have taught classes in public opinion, voting, American elections, Congress, African American politics, and racial attitudes at both the undergraduate and graduate level.

3.

My expertise on analyzing public opinion, the politics of race, and government population statistics has been widely acknowledged among

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journalists and social scientists. I have appeared on national news programs and was a guest on the Melissa Harris-Perry program, on MSNBC, in August of 2014. I have also been quoted in the New York Times, Washington Post, USA Today, the Los Angeles Times, and various other state and local publications. I have given invited lectures at a wide range of universities both domestically (e.g., Stanford, Berkeley, Harvard, Emory, Princeton, University of North Carolina, etc.) and internationally (e.g., Oxford, Qatar University, the Center for Research and Teaching Economics in Mexico City, and the University of Montreal). I have served as one of the Principal Investigators for the American National Election Study (ANES) since 2010. Between 2006 and 2010, I served as a member of the Board of Overseers for the ANES. I also served on the Board of Overseers for the General Social Survey (GSS) from 2012-2015. The ANES and the GSS are the premier surveys in the disciplines of political science and sociology, respectively. The National Science Foundation funds both surveys. My expertise regarding the study of government population statistics was acknowledged in 2015 with an invitation to join the Standing Committee on Reengineering Census Operations, sponsored by the National Research Council. This body was composed of scholars and statisticians to provide advice to the U.S. Census Bureau in its planning for the 2020 census. Finally, in recognition of

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my contributions to the social sciences I was elected as a Fellow to the American Academy of Arts and Sciences in 2012.

4.

I have published seventeen peer-reviewed articles in leading political science and sociology journals. I have also published seven chapters in various edited volumes. These article and book chapters have covered all of the areas in which I teach. For example, I have published two articles on congressional representation in the South: "Issue Salience and Support for Civil Rights Legislation Among Southern Democrats," and "Congressional Representation of Black Interests: Recognizing the Importance of Stability." In the first article, published in *Legislative Studies Quarterly*, I argue that the size of the Black constituency influenced southern Democratic House members' vote on final passage of the controversial 1990 Civil Rights Act, but not on an important and less publicized amendment to the bill.

5.

In a subsequent article examining a broader range of issues, I also find that African American constituency size influences southern Democratic responsiveness to Black interests but primarily on high-profile legislation. I report in the article that Southern Republican House members are generally unresponsive to Black interests, regardless of the salience of the bill or the

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size of the African American constituency. I have also published extensively on the impact of race-based appeals on public opinion and partisan support. For example, in an article published in the *Journal of Politics* in 2010, I find that highlighting race in discussions of the Georgia flag controversy lead White women and especially White men in this state to abandon their support for the Democratic Party.

III. Sources of Information

6.

This declaration is informed by my review of Rule 702 of the Federal Rules of Evidence, survey data from the American National Election Study (ANES) conducted by the Pew Research Center, a survey-experiment of my own design conducted in Georgia by Growth for Knowledge (GfK, formerly known as Knowledge Networks) in 2004, and my review of scholarly studies on race, partisanship, and candidate preferences in the U.S., including my own research on these matters. The ANES is a nationally representative survey of the contiguous 48 states that has been conducted in every presidential election cycle since 1948. The Pew Research Center is a non-partisan "fact tank" created in 1990. They engage in polling, research on demographic trends, and other social scientific projects. The GfK survey firm is a for profit organization that collects survey data over the Internet by

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recruiting respondents through traditional address-based sampling methods. Respondents who did not already have an Internet connection were provided with a free netbook computer and Internet service.

IV. Race and The Contemporary American Party System A. Partisan Demographics in the South and in the State of Georgia

7.

The contemporary racial divide in partisanship is large, both in absolute terms and relative to other salient social divisions in this country. Moreover, these racial differences are larger in the South than they are in other parts of the nation. Simply put, most African Americans and other minorities, particularly in the South (including Georgia), prefer different political candidates than do most White Americans.

8.

The racial breakdown in partisan support is presented in Table 1. The first two columns present results for Whites and Blacks in the South in 2016.¹ The majority (58%) of southern Whites identify as Republican, as shown in the first column. The majority of Blacks (80%) identify with the Democrats. Remarkably, more southern Blacks identify as pure

¹ These states are Alabama, Arkansas, Georgia, Florida, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia. This particular definition of the South is common in political science.

Independents (14%) than as Republicans (6%). The most important point to draw from the first two columns in Table 1 is that African Americans in the South are overwhelmingly Democratic and southern Whites decisively favor the Republican Party.

9.

Columns 3 and 4 in Table 1 present the racial breakdown in partisan support for the state of Georgia in 2014. The state level results are very similar to the regional results. Again, Whites are overwhelmingly Republican (59%) and African Americans express lopsided support for the Democrats (73%). Not surprisingly, this racial divide in partisan preferences translates into racially polarized voting throughout the state. (*See* Expert Report of Max Palmer).

10.

Another way to conceptualize the results in Table 1 is to focus on the percentage of either party that is composed of Whites and Blacks. For example, relying again on the 2016 ANES, I find that in the South overall 82% of Republican identifiers are White. By way of comparison it is worth noting that only about 61% of the inhabitants in the South identify as White, so this group is vastly overrepresented in the Republican Party. Only about 3% of Republican Party identifiers in the South are African American.

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Blacks make up about 19% of the population in the South so they are vastly underrepresented in the Republican Party. For the Democratic Party in the South, approximately 37% of identifiers are Black while about 40% are White. I find similar results when focusing on the 2014 Pew Survey data for Georgia. For example, in this survey 84% of Republican Party identifiers are White even though Whites only make up about 60% of the state population. Similarly, Blacks only make up 9% of Republican Party identifiers in Georgia even though they represent about 31% of the state population. Among Democrats in Georgia, 51% are Black and 35% are White. Thus, in the South, and in Georgia, the overwhelming majority of Republicans are White. And, in the South, Democrats are disproportionately Black. Indeed, in Georgia, Blacks represent a slight majority of Democratic identifiers even though they are a minority within the state.

B. Comparing the Racial Gap to Other Partisan Gaps

11.

The racial gap of 48-percentage points (i.e., the percentage of African Americans identifying as Democratic minus the percentage of Whites identifying as Democratic) in partisan support in Georgia is considerably larger than differences related to other salient social characteristics such as class, gender, age cohort, or even religion. The Pew Research Center also

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examined partisan affiliation across other social-demographic categories in Georgia.² For example, they report that partisan differences among the young (18-29) and old (65 and older) are only as high as 20 percentage points. The differences are also in the twenty-percentage point range for the least affluent (household income of less than \$30,000 a year) and the most affluent (household income of more than \$100,000 a year). Partisan differences based on education or gender are much weaker than either age or income-based differences.

12.

According to the Pew Research Center data, religion is the only social cleavage that generates partisan divisions in Georgia that even come close to that of race. In the 2014 survey data, 51% of respondents with no religious affiliation identified as Democratic compared to only 23% of Evangelical Protestants. This 28-percentage point partisan gap is substantial, but still pales in comparison to the 48-percentage point racial gap in Democratic affiliation.

² This information is available at the following website:

⁽http://www.pewforum.org/religious-landscape-study/state/georgia/party-affiliation/). Demographic information on the Atlanta-Metro region can be found here: (http://www.pewforum.org/religious-landscape-study/metro-area/atlanta-metroarea/party-affiliation/).

V. Explaining the Link between Race, Partisanship, and Candidate Preference

A. The Social and Demographic Correlates of Partisanship

13.

I find that race – especially self-identification as Black – is the single greatest social or demographic correlate of partisan preference. This is true particularly throughout the South, but also to a lesser extent in other parts of the country. I arrive at this conclusion through a straightforward analysis of the 2012 and 2016 ANES survey data (also see paragraphs 22 and 23 of this report for additional scholarship supporting this view).

14.ceAC

That race and partisanship overlap is not controversial. However, the issue is what accounts for this association. Scholars have generally sought to determine if the strong correlation that race has with partisanship and candidate support is merely an innocuous byproduct of economic patterns – for example, many African Americans are working class, and less-affluent voters have historically identified with the Democratic Party. On the other hand, racial group membership might serve as a significant determinant of partisan preferences, net of economic or social indicators. Demonstrating the latter would suggest that the overlap between race and partisan affiliation is

not incidental but rather that partisan preferences are themselves inextricably intertwined with race.

15.

In order to determine if the relationship between race and party affiliation is sustained even after other relevant socio-demographic characteristics are held constant, I examine survey data from the 2012 and 2016 American National Election Study.³ I examine survey data from both election cycles to demonstrate the stability of my results across time. In the ensuing analyses, I rely on south/non-south comparisons in order to highlight regional differences. There are an insufficient number of respondents in these surveys to focus solely on the state of Georgia. However, there is nothing about the state that would suggest that the racial patterns in partisanship sharply diverge from other parts of the South.

B. The Net Effect of Race on Partisanship

16.

Racial group membership is a more important determinant of partisan identity in the South than in the nation as a whole. That is, African

³ In 2012 and 2016, the ANES relied upon a traditional face-to-face representative sample survey of respondents drawn from the 48 contiguous states as well as a supplemental Internet sample. Except for the results in Table 1, I rely only upon the face-to-face sample in these analyses, as this has been the traditional mode of survey administration for the ANES since its inception in 1948. The results do not dramatically differ if I also incorporate the Internet sample.

Americans and non-Hispanic Whites have more sharply divergent partisan preferences in the South than anywhere else in the country. This conclusion is drawn from the results presented in Table 2 and converted into Figures 1 and 2. It is important to note that these analyses are different than the simple percentages presented in Table 1. The information contained in Figures 1 and 2 are the predicted probabilities that one will identify as a Democrat, holding all other demographic indicators constant. In other words, the figures display the probability of Democratic identification across race and region, when education, household income, age, gender, home ownership, and frequency of religious attendance are held constant. The virtue of this process is that it isolates the effect of race on partisanship by providing an apples-to-apples comparison: middle-income, middle-aged, moderately educated Whites are compared to identically situated African Americans. Consequently, any differences across racial groups cannot be attributed to differences across groups in various demographic indicators such as religiosity, education or income.



Figure 1 focuses on the results from 2012 and Figure 2 includes the results from 2016. Both figures tell the same story. Throughout the country, but especially in the South, racial group membership has a substantial – and statistically significant – impact on the probability of Democratic Party identification. For example, in Figure 1, I find that the probability that an African American in the South with average demographic characteristics will identify as a Democrat is a remarkable .91. The comparable probability that an average White southerner will identify as a Democrat in 2012 is only .31. This already considerable gap between Blacks and Whites in 2012 grows even larger in 2016, as shown in Figure 2. In 2016, the probability

that an average Black southerner will identify with the Democrats remains largely unchanged at .89. However, the probability that an average White southerner will identify with the Democratic Party in 2016 declines to .20. In other words, based on the most recent data available, the probability that the average African American in the South will identify as a Democrat falls just short of .90, whereas the probability that the average White southerner will *not* identify with the Democrats is .80. One can scarcely imagine a more racially polarized environment.⁴

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⁴ This conclusion is not altered if we focus on Republican rather than Democratic Party identification. According to the model in Table 2, the probability that a southern White person with an average demographic profile would identify with the Republican Party in 2012 is .57. The comparable figure for 2016 is 66. Among Blacks, these probabilities are .05 and .04, respectively. Thus, the gap between Whites and Blacks in terms of their probability of identifying with the Republican Party is essentially the mirror image of this same gap for the probability of identifying with the Democratic Party.



In summary, I find in both 2012 and 2016 that the probability that Blacks will identify as Democrats is exceedingly high. Whites, on the other hand, are far less likely to identify with the Democratic Party – especially in the South. For southern Whites with average levels of education, income, religiosity, and home ownership, their predicted probability of identifying with the Democratic Party in 2016 is only .20. The probability that African American southerners *with identical social characteristics* would align with the Democrats was .89 in 2016. In short, in terms of social characteristics,

southern partisanship is influenced by race more than anything else.⁵

C. The Influence of Racial Attitudes on Partisanship among Whites in the South: 2012 and 2016

19.

Partisan preferences in the South are also influenced by attitudes about race. Racial attitudes can be gauged in a variety of different ways, but even if one focuses only on explicitly politicized racial attitudes, the association with partisanship is still unmistakable. I refer here specifically to the perception that Blacks exert too much influence in American politics.⁶ Southern Whites who endorse this perception are almost certain to identify

⁵ The 2004 Georgia state data referenced earlier (see Section III, "Sources of Information") allows me to carry out similar analyses for Georgia, with three important caveats. First, this survey is somewhat dated. Second, the party identification question is worded differently such that Independent leaning partisans are *not* counted as partisans, but instead are counted as Independents. This artificially lowers the percentage of true partisans. Lastly, the survey did not ask about the frequency of religious attendance. In spite of these differences, I find that race is still the most influential correlate of partisanship in a model controlling for income, age, education, gender, home ownership, and metro residence. When all control variables are held at their means, the probability that the average Black Georgian is a Democrat is .58. The corresponding probability for White Georgians is .20.

⁶ Specifically, respondents were asked the following question: "Would you say that Blacks have too much influence in American politics, just about the right amount of influence in American politics, or too little influence in American politics?"
as Republican - even after controlling for demographic and socioeconomic

indicators and ideological views on the preferred size of government.⁷



Figure 3 presents these results for both the 2012 and 2016 ANES survey data of southern states (see Table 3 for analyses that generated this figure). The first set of bars present the estimated probability in 2012 of identifying with the Democratic Party for southern Whites who believe

⁷ These attitudes were measured with three questions offering binary options regarding the preferred size of government. The first question asked whether government had grown larger in recent years because it has become involved in things that people should do for themselves, or if it has grown larger to deal with bigger problems in society. The second question asks whether a stronger government is needed to handle complex economic problems or if the free market would be more effective. Lastly, respondents are asked if less government is better or if there are more things government should be doing.

Blacks have either too little or too much political influence. As we have seen most southern Whites do not identify with the Democrats, but if they believe African Americans possess too little political influence then the probability of a Democratic affiliation is .41.⁸ This probability drops by nearly .30 points for southern Whites who believe that Blacks have too much influence in American politics.

21.

The results for 2016 tell a similar story. White southerners who believe that Blacks exert too little political influence in this country are much more likely to identify as Democrats relative to comparable White southerners who believe Blacks have too much political influence.⁹ The discrepancy between the two groups is identical in both 2012 and 2016: southern Whites who believe that African Americans have too little political influence have a .28 greater probability of identifying with the Democratic Party than do demographically and attitudinally equivalent southerners who

 $^{^{8}}$ In 2012, about 18% of southern Whites embraced the view that Blacks wielded too little influence.

⁹ Fewer White southerners (15%) indicate that Blacks have too much political power in 2016. It is possible that this is because in 2016 questions about group political influence were asked in the post-election survey, after Donald Trump had been declared the winner of the presidential contest. In any case, as with 2012 non-southern Whites express far less concern with the political influence of African Americans (8%).

believe that Blacks have too much political influence. The results across each year are statistically significant at the .05 level, as shown in Table 3.¹⁰

D. Correlational and Experimental Research Showing that Racial Attitudes Influence Partisan Preferences

22.

A broad range of scholarship supports my findings on the link between racial attitudes and partisanship (see, for example, Abramson, Aldrich, and Rohde 2003; Valentino and Sears 2005). In an experiment my colleagues and I conducted in the state of Georgia in 2004, we found that raising the salience of race undermined White Support for the Democratic Party. (Hutchings, Walton, and Benjamin 2010). Specifically, we examined the impact of exposure to different media frames about the Georgia state flag controversy. Subjects were randomly assigned to read a story about the controversy that highlighted non-racial heritage arguments in support of Confederate symbols (incorporated into the 1956 Georgia state flag), or African American opposition to these symbols, or racist hate-group support for the Confederate battle flag. Although our news stories made no reference to political parties, we found that exposure to either version of the story

¹⁰ I uncover similar results when I used different indicators of racial attitudes. For instance, in 2016 I found that southern Whites who believe that Blacks encounter only "a little" discrimination in the U.S. had a .03 probability of identifying as a Democrat. Among southern Whites who believe that Blacks face "a great deal" of discrimination, this figure rises to .41.

emphasizing race led to weaker support for the Democratic Party – especially among White men.

23.

My work on the Georgia state flag controversy shows that racial attitudes often inform political affiliations. This does not suggest that overt Jim Crow racism is the driver of racial-partisan divide; rather, for many southern White voters, the appeal of the modern Republican Party has been its embrace of racial conservatism, often expressed by opposition to governmental efforts to reduce racial inequities. The quintessential example is race-based affirmative action policies. That is why in spite of genuine progress in the South, racial appeals are still an effective way to influence partisan preferences in this region (Hutchings et al. 2010).¹¹

24.

This branding of the GOP as the party of racial conservatism did not happen by accident. It was a calculated decision by entrepreneurial political

¹¹ This effort is often traced to the 1964 Republican presidential nominee Barry Goldwater. In 1961, Goldwater famously advocated at a meeting of southern Republican state party chairmen in Georgia that Republicans should deemphasize efforts to attract the Black vote and instead "go hunting where the ducks are," in a reference to the then staunchly Democratic White south (quoted in Klinkner and Smith 1999, pg. 262). Goldwater followed through on this promise in 1964. Although he lost the election to Lyndon Johnson in a landslide, he won the deep southern states of Mississippi, Alabama, Georgia, South Carolina, and Louisiana. Goldwater was the first Republican to ever win Georgia in a presidential election.

figures in the Republican Party. This explicit strategy was described in some detail in a 1970 New York Times interview with Kevin Phillips, a top political strategist for President Richard Nixon. Phillips indicated that, "from now on, the Republicans are never going to get more than 10 to 20 percent of the Negro vote and they don't need any more than that...but Republicans would be short-sighted if they weakened enforcement of the Voting Rights Act. The more Negroes who register as Democrats in the South, the sooner the Negrophobe whites will quit the Democrats and become Republicans. That's where the votes are" (Boyd, 1970, italics added). While this declaration does not purport to provide a history of the post-WWII Republican Party, the consensus view in the political science literature is that the GOP has consciously sought to recruit White southern support since at least the early 1960's by adopting racially conservative issue positions. (Edsall and Edsall 1991; Hutchings and Valentino 2004; Klinkner and Smith 1999; Mendelberg 2001; O'Reilly 1995; Valentino and Sears 2005).

VI. Analysis of Alford Report

25.

Dr. John Alford's January 25, 2019 report does not contest that voting among African Americans and Whites in Georgia is highly polarized along racial lines. It is undisputed that African American and White voters in central and southeast Georgia have consistently supported different candidates, and that the candidates supported by White voters usually prevail. Rather, he attempts to provide an alternate justification—based on "*party* polarization," rather than *racial* polarization—that ultimately explains nothing. What Dr. Alford refers to as "party polarization" is a symptom of racial group identity and the parties' positions on issues involving race. In other words, Dr. Alford's conclusion does not identify an independent, non-racial cause of the racially polarized voting demonstrated in Dr. Palmer's report. Instead, he has simply keyed in on a correlating factor that is also a symptom of racial divisions.

26.

To begin with, Dr. Alford incorrectly assumes that racially polarized voting can only occur when an African American voter supports an African American candidate and a White voter supports a White candidate. This narrow view of racially-polarized voting is unsupported and contradicts

political science scholarship, including my own research, which has found that racially conservative White voters also show bias towards White Democratic candidates, particularly when racial issues become salient in the campaign. In work co-authored with Nicholas Valentino and Ismail White (2002), I examined support for George W. Bush and Al Gore during the 2000 presidential contest. We presented our White Detroit-area subjects with one of several different fictitious Bush campaign ads. The narration was unremarkable and constant across all versions. However, in alternate versions of the ad, we paired images of African Americans with standard Republican talking points about "wasteful government programs," or efforts to reform an unfair health care system. Our aim was simply to show that the pairing of ordinary political rhetoric and racial imagery was sufficient to motivate White voters to bring their racial conservatism to bear on their vote choice even in a contest featuring two White candidates.

27.

We found that, relative to those viewing non-political product ads in the control group, racially conservative study participants were much more likely to support Bush – and racial liberals more likely to support Gore – when viewing the doctored Bush ads carrying the subtle racial appeal. And, in order to show that our results were not just the result of exposure to any

political ad, we substituted White imagery for Black imagery (e.g., "wasteful government programs" was paired with pictures of White families). We found that racial conservatism was unrelated to Bush support in the experimental conditions featuring counter-stereotypic (i.e., negative) depictions of Whites. In an extension of this work, Stephens-Dougan (2016) found that Whites were less likely to vote for a White Democrat if the candidate was shown in a campaign flyer with one or more Black supporters relative to a flyer where all supporters were depicted as White. Therefore, it is simply not accurate to suggest, as Dr. Alford does, that racially polarized voting can only occur when Black voters support Black candidates and White voters support White candidates.

28.

Furthermore, Alford's "party polarization" theory contradicts decades of political science scholarship. In 1960, Angus Campbell, Phillip Converse, Warren Miller, and Donald Stokes published a book on the origins and consequences of partisan identification, entitled *The American Voter*. This book quickly became the foundational study of modern political behavior. This is in part because their book introduced the concept of party identification that is still used today, in the social sciences as well as among political journalists. These authors defined party identification as a sense of psychological attachment to one of the major political parties

29.

For Campbell and his colleagues, social group memberships and attachments play an important role in the development of party identification. In short, the more members identify with their politically relevant group (e.g., racial group, religious group, class group, etc.) the more likely they are to identify with the political party to which those groups are aligned. Campbell and his colleagues referred to this process as the "Funnel of Causality," and it is illustrated in Figure 3

30. Campbell and his colleagues tested and largely confirmed their hypotheses on survey data drawn from the 1950's. Subsequent scholars have refined their argument somewhat, but their basic argument has stood the test of time and remains the standard explanation for vote choice among political scientists. (See Hutchings and Jefferson 2017 for a review of the recent literature). For example, in 2008 Michael Lewis-Beck, William G. Jacoby, Helmut Norpoth, and Herbert F. Weisberg sought to reexamine the groundbreaking insights of *The American Voter* and to replicate the results with more recent survey data. In this book, entitled The American Voter

Revisited, Lewis-Beck and his colleagues test the canonical theories from the original study on the 2000 and 2004 ANES. In brief, they find that the "Funnel of Causality" remains the best explanation for vote choice, although they identify a slightly different mix of relevant social groups in the 21st century.¹² In another elaboration of Campbell and his colleague's argument in The American Voter, Green, Palmquist, and Schickler argue that partisanship is a social identity similar to other identities like race or religion (Green, Palmquist, Schickler 2002). Moreover, they argue that "individuals consider salient social groups when they think of the political parties and subsequently determine their partisan loyalties by assessing which party most closely reflects their own unique set of identities" (quoted in Hutchings and Jefferson 2017, pg. 25). Thus, partisan ties are not separate from social group attachments. The latter inevitably gives rise to the former. And the most influential social group attachment is race. This accounts for the results outlined earlier in this report where I found, based on analyses of the 2012 and 2016 American National Election Study, that racial group membership was the most influential demographic determinant of party identification.

¹² As with Campbell and his colleagues (1960), Lewis-Beck and his colleagues (2008) also find that African Americans, Jewish Americans, and union members tend to vote in a bloc but now this is also true for women and Hispanics – two groups that were either not distinctive in the earlier study (women) or that were entirely overlooked (Hispanics). Additionally, Catholics were once a solid voting bloc in the 1950's but were not found to be distinctive in their voting preferences in more recent elections.

(See Figures 1 and 2, Table 2, and the discussion on pages 14-18). This finding is consistent with standard accounts of race and partisanship in political science. For example, Abramson, Aldrich, and Rohde (2003) report that, "the sharpest social division in U.S. electoral politics is race, and this division has been reflected in partisan loyalties for decades" (pg. 172).

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Figure 3. The "Funnel of Causality" Determining Vote Choice (Derived from Campbell, Converse, Miller, and Stokes (1960))

Group ID (e.g., Racial group, religious group, class group attachments)	Party ID –	Policy Prefere	Vote Choi	ice
		CRACYDOCKE		
		FROMDEMOC		
	2 ^{ETP}	AFVED .		

VI. Conclusion

31.

This declaration finds that racial group membership and racial attitudes are highly correlated with partisan preferences. This is true throughout the country, but it is especially true in the South – including Georgia. On balance, the vast majority of southern Whites and African Americans belong to opposing political parties. These differences cannot be reduced to class, religiosity, or other social distinctions. When such factors are held constant, racial differences in partisan support remain unchanged. It is also clear that racial conservatism contributes to the racial divide in party identification. Given these conclusions, I find that diverging partisan affiliations among African American and White voters in the South are symptoms of longstanding racial group attitudes and, in some cases, conflicts in the region.

Dated this 22nd day of February, 2019.

Vince Hutchigs

Vincent L. Hutchings

	South 2016 Whites	South 2016 Blacks	<u>GA 2014</u> Whites	<u>GA 2014</u> Blacks
Democratic	26%	80%	25%	73%
Republican	58%	06%	59%	12%
Independent	15%	14%	17%	15%
Respondents	849	200	376	251

Table 1. Partisan Identity by Race and Ethnicity in the South and in
Georgia (2016, 2014)

Notes: Survey data in 2014 from Georgia are drawn from the Pew Research Center. Survey data on the South in 2016 are drawn from the American National Election Study (Internet cases and face-to-face cases are combined). The South is defined here as the 11 states of the old Confederacy (AL, AR, GA, FL, LA, MS, NC, SC, TN, TX, VA). The 7-point ANES party identification scale is collapsed into three categories in order to simplify results in Table 1. Independent "leaners" are classified as partisans in the figures presented in this table.

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Correlate	Correlates of Partisan Identity in the South and the Non-South				
	2012	2012	2016	2016	
	(South)	(Non-South)	(South)	(Non-South)	
Black	3.14*	2.43*	3.47*	2.02*	
(White=0)	(.39)	(.35)	(.59)	(.40)	
Latino	1.24*	1.49*	1.41*	.60*	
(White=0)	(.28)	(.27)	(.38)	(.31)	
Female	.36	.07	.49	40*	
	(.24)	(.17)	(.31)	(.20)	
Age	.33	.34	55	.66	
(1=75 or older)	(.41)	(.34)	(.57)	(.42)	
Education.	17	25	CON M	1 174	
Education	1/	.25	04	1.1/*	
(1=Post College)	(.48)	(.51)	(.33)	(.30)	
Income	- 16	- 41	- 49	- 36	
meonie	(.48)	(34)	(.52)	(42)	
	(110)	NO	(=)	()	
Home Ownership	42	39*	.31	.10	
(1=Home Owner)	(.26)	(.19)	(.32)	(.25)	
· · ·	LP-)			
Rel. Attendance	82*	-1.43*	-1.72*	-1.58*	
(1=At least twice	(.37)	(.27)	(.43)	(.31)	
weekly)					
	6-v				
Cut 1	13	76	10	.33	
	(.34)	(.27)	(.53)	(.31)	
	27	20	(2)	00	
Cut 2	.37	30	.62	.80	
	(.34)	(.27)	(.50)	(.31)	
Chi squarad	82.04	106 70	56 91	61 71	
Cill squaleu	02.04	100.70	50.01	04./4	
Ν	679	1,148	320	659	
		- , ~			

Table 2. Ordered Logistic Regressions of the Social and Demographic	
Correlates of Partisan Identity in the South and the Non-South	

Notes: * $p \le .05$ for two-tailed test. Standard errors listed in parentheses. Whites represent the excluded category in the analyses (i.e., Black=1, White=0; or Latino=1, White=0). All variables coded 0-1. Partisan identity coded such that higher values correspond with greater identification with the Democratic Party. The South is defined here as the 11 states of the old Confederacy (AL, AR, GA, FL, LA, MS, NC, SC, TN, TX, VA).

	For	r White Responder	nts	
	2012	2012	<u>2016</u>	<u>2016</u>
	(South)	(Non-South)	(South)	(Non-South)
Black Political	-1.50*	-1.73*	-2.48*	-1.66*
Influence	(.74)	(.51)	(.94)	(.58)
	()	((100)
Latino Political	-1.03	67	-1.16	-3.16*
Influence	(.66)	(.42)	(.77)	(.68)
	· · · ·			· · · ·
Asian Political			.45	1.06
Influence			(.99)	(.70)
				. ,
Size of Government	2.49*	3.02*	1.98*	2.31*
(Liberal=1)	(.51)	(.33)	(.59)	(.37)
· · · ·			Ch.	. ,
Female	.14	19	84+	.18
	(.37)	(.25)	(.44)	(.30)
		C		
Age	1.38*	1.10*	.03	1.35*
(1=75 or older)	(.66)	(.46)	(.71)	(.51)
		CP		
Education	28	.90*	-1.05	.72
(1=Post College)	(.76)	(.42)	(.78)	(.45)
	ć			
Income	.39	-1.26*	-1.16	53
	(.73)	(.50)	(.80)	(.60)
	E V			
Home Ownership	\$.52	21	.71	.33
(1=Home Owner)	(.45)	(.30)	(.53)	(.32)
Rel. Attendance	-1.23*	-1.47*	-1.63*	-1.64*
(1=At least twice	(.58)	(.39)	(.67)	(.41)
weekly)				
Cut 1	.47	.03	-1.21	.47
	(.82)	(.47)	(.90)	(.56)
Cut 2	1.02	.63	36	1.11
	(.82)	(.47)	(.86)	(.57)
Chi squared	47.58	107.39	43.55	134.45
Ν	200	540	190	446

Table 3. Ordered Logistic Regressions of the Social, Demographic, and Attitudinal Correlates of Partisan Identity in the South and Non-South En White Demonstration

Notes: $+ p \le .10$; $* p \le .05$ for two-tailed test. Standard errors listed in parentheses. All variables coded 0-1. Partisan identity coded such that higher values correspond with greater identification with the Democratic Party. The South is defined here as the 11 states of the old Confederacy (AL, AR, GA, FL, LA, MS, NC, SC, TN, TX, VA).

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1	ý 1			

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Grants:

- 2014-2017 Principal Investigator (Michigan), American National Election Studies, National Science Foundation Award (w/ Ted Brader at Michigan, and Simon Jackman and Gary Segura at Stanford).
- 2012-2014 Co-Principal Investigator, Collaborative Research: Metadata Portal for the Social Sciences, National Science Foundation Award (w/ George Alter).

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- 2010-2013 Principal Investigator (Michigan), American National Election Studies, National Science Foundation Award (w/ Simon Jackman and Gary Segura).
- 2009-2011 Principal Investigator, Elite Communications and Racial Group Conflict in the 21st Century, National Science Foundation Award (w/ Hanes Walton and Robert Mickey).
- 2004-2006 Co-Principal Investigator, National Study of Ethnic Pluralism & Politics, National Science Foundation Award (w/ James Jackson, Ronald Brown, and Cara Wong).
- 2004 Experimental Module in NSF-funded Time-Sharing Experiments for the Social Scientists, with Hanes Walton, Jr.
- 2002-2005 Co-Principal Investigator, Political Cues and Internet Use: Elite Communication Strategies and the Use of the Internet for Information Seeking and Political Participation, National Science Foundation Award (w/ Nicholas Valentino).
- 1999-2000 Co-Principal Investigator, Detroit Area Study, University of Michigan (w/ N. Valentino and M. Traugott).
- 1994 National Science Foundation Dissertation Research Grant.

Publications-*Books*:

Barker, Lucius, Mack Jones, Katherine Tate, and Vincent Hutchings, *forthcoming*, "African Americans and the American Political System" (5th edition)

Hutchings, V., 2003, Public Opinion and Democratic Accountability, Princeton University Press.

Publications-Book Chapters:

- Hutchings, V., and Spencer Piston. 2011. "The Determinant and Political Consequences of Prejudice." In *The Handbook of Experimental Political Science*, James N. Druckman, Donald P. Green, James H. Kuklinski, and Arthur Lupia (editors), Cambridge University Press, pg. 306-319.
- Hutchings, V., and Spencer Piston. 2011. "Knowledge, Sophistication, and Issue Publics." In *The Oxford Handbook of American Public Opinion and the Media*, Robert Y. Shapiro and Lawrence R. Jacobs (editors), Oxford University Press, pg. 571-585.
- Hutchings, V., C. Wong, J. Jackson, and R. Brown. 2011. "Explaining Perceptions of Competitive Threat in a Multiracial Context." In *Race, Reform, and Regulation of the Electoral Process*, Guy-Uriel E. Charles, Heather K. Gerken, and Michael S. Kang (editors), Cambridge University Press, pg. 52-74.
- Hutchings, V., and Nicholas Valentino. 2010. "Divide and Conquer: How Partisan Race Cues Polarize the Electorate." In African-American Political Psychology: Identity, Opinion, and Action in the Post-Civil Rights Era, Tasha S. Philpot and Ismail K. White (editors), Palgrave Macmillan, pg. 157-169.
- Hutchings, V., and LaFleur Stephens. 2007. "African Americans and the Presidential Nominating Process." In *The Making of Presidential Candidates 2008*. William G. Mayer (editor), Rowman and Littlefield, pg. 119-139.
- Hutchings, V., N. Valentino, T. Philpot, and I. White. 2006. "Racial Cues in Campaign News: The Effects of Candidate Strategies on Group Activation and Political Attentiveness Among African Americans." In *Feeling Politics: Emotion in Political Information Processing*. David Redlawsk (editor), Palgrave Macmillan, pg. 165-186.

Publications-Journals:

- Hutchings, V., and C. Wong. 2014. "Racism, Group Position, and Attitudes about Immigration among Blacks and Whites." *Du Bois Review* 11(2): 419-442.
- Berinsky, Adam, V. Hutchings, T. Mendelberg, L. Shaker, N. Valentino. 2011. "Sex and Race: Are black candidates more likely to be disadvantaged by sex scandals?" *Political Behavior*, 33(2): 179-202.
- Valentino, N., E. Groenendyk, K. Gregorowicz, T. Brader, and V. Hutchings. 2011. "Election Night's

Alright for Fighting: The Role of Anger versus Anxiety in Political Participation." *The Journal of Politics*, 73(1): 156-170.

- Hutchings, V., H. Walton Jr., and A. Benjamin. 2010. "Explicit Racial Cues and Support for Confederate Symbols and Southern Partisanship." *The Journal of Politics* 72(4):1175-1188.
- Hutchings, V. 2009. "Change or More of the Same: Evaluating Racial Policy Preferences in the Obama Era." *Public Opinion Quarterly*, 73(5): 917-942.
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- Hutchings, V., and Ashley E. Jardina. 2009. "Results from Experimentation: Racial Priming in Political Campaigns." *Annual Review of Political Science*, 12:397-402.
- Valentino, N., V. Hutchings, A. Banks, and A. Davis. 2008. "Is a Worried Citizen a Good Citizen? Emotions, Political Information Seeking, and Learning via the Internet." *Political Psychology* 29(2): 247-273.
- Hutchings, V., N. Valentino, T. Philpot, and I. White. 2004. "The Compassion Strategy: Race and the Gender Gap in American Politics." *Public Opinion Quarterly*. 68(4):512-541.
- Hutchings, V., N. Valentino. 2004. "The Centrality of Race in American Politics." *Annual Review of Political Science* 7:383-408.
- Valentino, N., V. Hutchings, and D. Williams. 2004. "The Impact of Polytical Advertising on Knowledge, Internet Information Seeking, and Candidate Preference." *Journal of Communications* 54(2): 337-354.
- Hutchings, V., H. McClerking, and G. Charles. 2004. "Congressional Representation of Black Interests: Recognizing the Importance of Stability." *Journal of Politics* 66(2): 450-468.
- Valentino, N., V. Hutchings, and I. White. 2002. "Cues That Matter: How Political Ads Prime Racial Attitudes During Campaigns," *American Political Science Review*, 96(1): 75-90.
- Valentino, N., M. Traugott, and V. Hutchings. 2002 "Group Cues and Ideological Constraint: A Replication of Political Advertising Effects Studies in the Lab and in the Field," *Political Communication*, 19(1): 29-48.
- Hutchings, V. 2001. "Political Context, Issue Salience, and Selective Attentiveness: Constituent Knowledge of the Clarence Thomas Confirmation Vote," *Journal of Politics* 63(3): 846-868.
- Hutchings, V. 1998. "Issue Salience and Support for Civil Rights Legislation Among Southern Democrats," *Legislative Studies Quarterly* 23(4): 521-544.
- Bobo, L., and V. Hutchings. 1996. "Perceptions of Racial Group Competition: Extending Blumer's Theory of Group Position to a Multiracial Social Context," *American Sociological Review* 61(6): 951-972.

Research Reports, Reviews, and Commentaries:

- Hutchings, Vincent L. "Race, Punishment, and Public Opinion." forthcoming, Perspectives on Politics.
- Hutchings, Vincent L., and Portia R. Hemphill. 2012. "Rifts and Tides: The Road to Black Political Representation." *Polity* 44(1): 135-147.
- Hutchings, Vincent L. 2004. "The Complexity of Racial Attitudes: Continuing Progress or the Calm Before the Storm? "*Dubois Review* 1(1): 203-208.
- Hutchings, V., 2002, Review of Tali Mendelberg's *The Race Card: Campaign Strategy, Implicit* Messages, and the Norm of Equality, in American Political Science Review 96(3): 647-648.
- Hutchings, V., 2001, Review of Richard Fenno's Senators on the Campaign Trail: The Politics of Representation, in National Political Science Review, 8: 265-267.
- Hutchings, V., and H. McClerking, 2000, "The Inclusion of Minority Interests in Congress and the Presidency," Review of Christopher Burke's *The Appearance Of Equality: Racial Gerrymandering, Redistricting, and the Supreme Court*; Keith Bybee's *Mistaken Identity: The Supreme Court and the Politics of Minority Representation*; and Russell Riley's *The*

April 2015

Presidency and the Politics of Racial Inequality: Nation Keeping from 1831 to 1965, in Congress and the Presidency, 27 (2): 217-222.

Hutchings, V., and N. Valentino, 2000, "The Impact of Group Attitudes on Vote Choice in Gubernatorial Contests." A Pilot Study Report to the 1998 NES Pilot Study Committee and the American National Election Study Board of Overseers,

http://www.umich.edu/~nes/resources/psreport/abs/98e.htm.

Hutchings, V., 2000, Prologue to Hanes Walton, Jr.'s Reelection, xxv-xxix.

Other Work in Review or in Progress:

Under Review:

In Progress:

- Hutchings, Vincent L., Ashley A. Jardina, Robert Mickey, and Hanes Walton, Jr., in progress, "The Politics of Race: How Threat Cues and Group Position Can Activate White Identity."
- Hutchings, Vincent L., Vanessa Cruz Nichols, LaGina Gause, and Spencer Piston, "Whitewashing: How Obama Used Implicit Racial Cues as a Defense Against Political Rumors."
- Hutchings, V., Spencer Piston, and Davin Phoenix, in progress, "Political Empowerment and Participation Among Blacks, Latinos, and Whites in the 21st Century."
- Hutchings, Vincent L., Ashley A. Jardina, Robert Mickey, and Hanes Walton, Jr., in progress, "Exploring the Effects of Implicit and Explicit Racial Cues on Blacks' Attitudes about Whites."

Presentations at Invited Colloquia and At Association Conferences:

Association Conferences: American Political Science Association: Paper Presentations: 1994 (x2), 1995, 1998, 2001(x2), 2002, 2003, 2005 (x2), 2006 (x2), 2009, 2012 Panel Chair/Discussant Roles: 1999 (x2), 2004, 2013 (x2) Midwest Political Science Association: Paper Presentations: 1997, 1999, 2000, 2001, 2002, 2003, 2005, 2006, 2007, 2008, 2009 (x2), 2011 (x2), 2012 (x2), 2013 (x2), 2014, 2015 Panel Chair/Discussant Roles: 1999, 2002, 2004 (x2), 2005, 2007, 2008, 2010, 2011, 2012, 2013, 2014 Western Political Science Association: Paper Presentations: 1993, 1994 Southern Political Science Association: Paper Presentations: 1999, 2009 National Conference of Black Political Scientists: Paper Presentations: 2000, 2003, 2005, 2014 Panel Chair/Discussant Roles: 2003 American Association of Public Opinion Research: Paper Presentations: 2001, 2003, 2004, 2005, 2011 Panel Chair/Discussant Roles: 2002

Invited Colloquia:

Paper Presentations: West Coast Experiments Conference, Claremont Graduate University, May 1, 2015.

Empire Lecture Series Speaker, Midwest Political Science Association, April 18, 2015. Paper to Publication Workshop, Purdue University, February 20, 2015.
Centre for the Study of Democratic Citizenshin Sneaker Series McGill
University/University of Montreal December 19, 2014
Class Race and Ethnicity Workshon Michigan State University Sentember 26 2014
Wast Coast Experiments Conference, Claremont Graduate University, September 20, 2014.
University of Maryland Symposia on Structural Pagism and the Poot Causes of
Droindige April 2 2014
Notional Conformation of Diagle Dolitical Scientista Conformation Invited Speaker March
15 2014
15, 2014. University of Missouri Dalitical Science Speaker Series January 24, 2014
University of Missouri, Political Science Speaker Series, January 24, 2014.
Pennsylvania State University, Political Science Speaker Series, December 7, 2012.
Marvard University, Racial Attitudes and Identity Network Folum, October 12, 2012.
Yate University, American Politics Speaker Series, September 20, 2012.
Massachusetts Institute of Technology, Political Science Seminar, April 2, 2012.
University of North Texas, Martin Colloquium, March 30, 2012.
23, 2012.
Indiana University, Center on American Politics Seminar, November 11, 2011.
Princeton University, Fall Lecture Series in the Joint Degree Program in Social Science
and Social Policy, September 19, 2011.
Harvard University, Political Behavior and Psychology Workshop, December 2, 2010.
University of Pennsylvania, American Politics Workshop, November 11, 2010.
Duke University, American Politics/REGSS Speaker Series, September 15-16, 2010.
University of North Carolina, Chapel Hill, American Politics Research Group, September 16-17, 2010.
University of Massachusetts, Amherst, Speaker Series, April 26-27, 2010.
University of Pittsburgh, Race in America: Restructuring Inequality National
Conference, February 15-16, 2010.
Vanderbilt University, Invited Speaker Series, October 28-29, 2009.
Lewis & Clark College, Robert B. Pamblin Society of Fellows Distinguished Visiting
Scholars series, February 11-12, 2009.
Duke University, The Future of Elections Scholarship: Policy Challenges & A
Research Agenda for Reform, February 27-28, 2009.
University of Iowa, Understanding the 2008 Presidential Election, March 5-7, 2009.
Northwestern University, Conference on Experiments in Political Science, May 28-29.
2009.
Chicago University, Race and the American Voter, December 11, 2008.
Notre Dame University, January 2008.
Stanford University, Center for Comparative Studies in Race and Ethnicity, May 2007.
University of California, Berkeley, April 2007.
Harvard University, Center for American Political Studies Seminar Series, October
2000. University of Chicago, Dolitical Develology Workshop, May 2006
University of Tayon Austin Conference in African American Political Development
March 3-5, 2005.
Harvard University, Color Lines Conference, August-September 2003.
University of California-Berkeley, Nation of Immigrants Project, May 2003.
University of Rochester, Conference on Black Political Representation, May 2003.
University of California-Los Angeles, American Politics Seminar Series, February
2003.

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- Washington University, Political Science Department, Race & Politics, Speaker Series, September 2002.
- Princeton University, Politics Department, Center for the Study of Democratic Politics, Speaker Series, April 2002.
- University of Michigan- Ann Arbor, Survey Research Center, October 2001.
- University of Virginia, Department of Government and Foreign Affairs, Ralph Bunche Summer Institute, Speaker Series, June 1997.
- University of California-Los Angeles, Job Placement Talk, March 1997.
- Princeton University, Politics Department: Recruitment Series, December 1995.
- Stanford University, Department of Political Science: Recruitment Series, January 1996.
- University of Texas-Austin, Department of Government: Recruitment Series, March 1996.
- University of Virginia, Department of Government and Foreign Affairs: Recruitment Series, March 1996.
- University of Michigan, Political Science Department: Recruitment Series, February 1996.
- Panel Discussant Role:
 - University of Michigan-Ann Arbor, Survey Research Center, Talk by Kenneth Prewitt, Director of U.S. Census Bureau, October 2000.

Professional Memberships:

American Political Science Association Midwest Political Science Association National Conference of Black Political Scientists American Association for Public Opinion Research

Service to the Department, University, Profession:

Profession:	AR ¹⁴
2015-2019	Member of Standing Committee on Reengineering Census Operations, National
	Research Council
2015	Chair, Nominations Committee, Midwest Political Science Association
2015	Russell Sage/National Research Council 75 th Anniversary of An American
	Dilemma Planning Group Member
2012-2015	Member of Board of Overseers, General Social Survey (GSS)
2012-2016	Editorial Advisory Board Member, American Political Science Review
2012	Editorial Advisory Board Member, American Politics Research
2012	Editorial Advisory Board Member, Congress and the Presidency
2010-2016	Principal Investigator (Michigan, with Ted Brader), American National Election
	Study
2010	Departmental Review Committee, Princeton University, Politics Department
2010	Editorial Board, American Journal of Political Science
2008-2010	Associate Principle Investigator, American National Election Study
2007	Midwest Political Science Association Council Member
2006	Member of Board of Overseers, American National Election Study
2006	Editorial Board, Journal of Politics
2005	Co-chair APSA Committee on the Status of Blacks in the Profession
2004	Editorial Board, American Politics Research

April 2015

2004	Division head APSA, public opinion section
2004	Co-chair APSA Race, Ethnicity, Politics Book Award Committee
1998	Member of American National Election Studies (NES) 1998 Pilot Study
	Planning Committee
University:	
2014-2015	Member, Institute for Social Research Director's Search Committee
2010-2016	Affiliated Faculty, Robert Wood Johnson Health Policy Scholars Program
2013-2015	Rackham Merit Fellow Review Committee
2010-2014	Member of Advisory Board of Resource Center for Minority Data
2008-2009	Member of University of Michigan Press Political Science Advisory Board
2008	Member of the Institutional Steering Committee of the Michigan chapter of the
	Edward Bouchet Honor Society
2005-2008	Member of University of Michigan Press Board
2005	Member of Institute for Social Research Policy Committee
1000	Mamber address committee for the National Summer of American Life

Member, ad hoc committee for the National Survey of American Life 1999

Department: Committee Memberships

	Chr.
partment: Con	nmittee Memberships
2014-2015	Chair, Race, Ethnicity, and Politics (REP) Search Committee
2012-2014	Member, Department Executive Committee
2013-2014	Member of Target of Opportunity Job Search Committee
2011	American Politics Subfield Coordinator
2006-2010	Director, Graduate Admissions Committee
2007-2008	Member, American Politics Political Behavior Search Committee
2005	Member, Graduate Admissions Committee
2003	Member, Target of Opportunity Search Committee
2000	Member, Department Executive Committee
1999-2000.	Member, American Politics Political Behavior Search Committee
1998-1999.	Member, American Politics Target of Opportunity Search Committee
1999	Member, Gerald R. Ford Fellowship Committee
1997-1998.	Member, American Politics Political Institutions Search Committee

Department: Dissertation Advising

Co-Chair: Bai Linh Hoang, political science, candidate (co-chair: Rick Hall) Co-Chair: LaShonda Brenson, political science, candidate (co-chair: Rick Hall) Co-Chair: LaGina Gause, political science/public policy, candidate (co-chair: Liz Gerber) Co-Chair: Jennifer Chudy, political science, candidate (co-chair: Don Kinder) Member: Leanne Kang, education, candidate Co-Chair: Vincent Fusaro, political science/social work, candidate (co-chair: John Tropman) Co-Chair: Vanessa Cruz, political science, candidate (co-chair: John Garcia) Co-Chair: Chinbo Chong, political science, pre-candidate (co-chair: Ted Brader) Co-Chair: Portia Hemphill, pol. science/public policy, candidate (co-chair: Mary Corcoran) Co-Chair: Hakeem Jefferson, political science, pre-candidate (co-chair: TBD) Member: Chris Skovron, political science, candidate Member: Derek Stafford, pol. science, candidate Co-Chair: Davin Phoenix, political science/public policy, completed (co-chair: Ted Brader) Co-Chair: Ashley Jardina, political science, completed (co-chair: Ted Brader) Co-Chair: Spencer Piston, political science, completed (co-chair: Arthur Lupia) Chair: Michael Duenes, political science, completed (stepping in on behalf of Hanes Walton)

¹⁹⁹⁷⁻¹⁹⁹⁹ Member, Interdepartmental Ph.D. in Communications Studies Admissions Committee

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Co-Chair: LaFleur Stephens, pol. science/public policy, completed (co-chair: Richard Hall) Co-Chair: Ashley Reid Brown, pol. science/public policy, completed (co-chair: Richard Hall) Chair: Andrea Benjamin, political science, completed Co-Chair: Dyron Dabney, political science, completed (co-chair: J. Campbell) Member: Eric Groenendyk, political science, completed Co-Chair: Antoine Banks, political science, completed (co-chair: N. Valentino) Member: Rosario Aguilar, political science, completed Chair: Guy-Uriel Charles, political science and law, candidate Co-Chair: Debra Horner, political science, completed (co-chair: M. Feldman) Co-Chair: Michael Minta, political science, completed (co-chair: Rick Hall) Co-Chair: Ismail White, political science, completed (co-chair: N. Valentino) Member: Elizabeth Arbuckle Wabindato, political science, completed Member: Harwood McClerking, political science, completed Member: Michael Hanmer, political science, completed Member: Tasha Philpot, political science, completed Member: Brian McKenzie, political science, completed Member, Margaret Young, communications studies, completed ethered the set of the Member, Margaret Howard, communications studies, completed Member: Regina Freer, political science, completed



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	37
1	EXAMINATION
2	BY MR. NKWONTA:
3	Q. Ms. Hatcher, Mr. Tyson asked you earlier
4	about whether you had ever supported republican
5	candidates. Do you recall that?
6	A. Yes.
7	Q. Do you identify as a democrat?
8	A. No.
9	Q. Have you voted for democratic candidates
10	in the past?
11	A. Yes.
12	Q. Why is that?
13	A. Because they were the party they reached
14	out to my community, African-Americans.
15	Q. Can you explain why you agreed to be a
16	plaintiff in this lawsuit?
17	A. Yes. Because I moved back home and I saw
18	that my community wasn't growing and just a lot of
19	neglect for people that looked like me as
20	African-Americans.
21	MR. NKWONTA: Nothing further.
22	MR. TYSON: I just have a couple quick
23	questions in light of that.
24	MR. NKWONTA: Sure.
25	111



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	21
1	A. Yes. So in my district, especially for a
2	congressional district where I guess it's currently
3	Buddy Carter, we have not had a viable candidate due
4	to how our district is cut in years, and so it's
5	always been hard to have someone who actually
6	represents myself, my platform and my beliefs in that
7	district when we go to vote.
8	Q. Okay. In your opinion, do black voters or
9	African-American voters in Georgia voter for democratic
10	candidates?
11	A. I can't give you the consensus of all
12	African-Americans, but I can give you mine as an
13	African-American.
14	Q. Sure.
15	A. I vote for candidates who are actually
16	looking for to represent the platform in progressive
17	issues that affect African-Americans, myself.
18	Q. Okay. So do you know if Georgia uses a
19	majority vote requirement in its elections?
20	A. It does.
21	Q. Do you know if it uses what's called an
22	anti single-shot provision? It's sort of an obscure
23	term.
24	A. You would have to define that.
25	Q. It's where they must fill out the entire



1 a couple minutes? MR. TYSON: 2 Sure. 3 (Off the record.) DIRECT EXAMINATION 4 5 BY MR. NKWONTA: Hello, Mr. Warren. 6 Ο. Α. Hello. 7 I just have a couple of quick questions 8 Ο. for you. 9 Α. Okay. 10 You mentioned that you're a Democrat and 11 Ο. that African Americans vote for Democrats generally. 12 Can you explain why that is? 13 Well, the African Americans feel that the 14 Α. Democrat is the inclusive party where they are just as 15 willing to have the little guy survive as the big guy 16 17 at top. Normally Democrats are very, very -- black people are very, very led in that direction, they 18 19 believe. So that's why they vote the way they do. 20 The Republican Party has never ever 21 offered the black race anything for anything, for 22 nothing. The only time I remember that the Republican 23 Party did something for the African American race was back in 1966, '67 when they spent money to put housing 24 25 development area they called them -- we got one in

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1 North Carolina called -- what do they call it? -- Chocolate City in North Carolina. The Republican 2 Party funneled money through the Ford Foundation so 3 the people could come to these counties that were 4 5 majority black and build houses, build houses and 6 other types of infrastructure. That has not happened 7 since or anything even close to that. But that was 8 only a coy to be able to get -- to see could they convince the black vote to go Republican. 9

Q. So on issues of race, can you tell me a little bit about what it is that you feel the Democratic Party has done as opposed to the Republican Party?

A. Well, the funny thing about that, when you look at -- when you put them on a scale together, if you put them on the legal scale, the scale of justice, the Democratic Party is there, Republican party is there. So in actuality --

19 When you say "there," you have the Ο. 20 Democratic Party -- are you showing the Democratic 21 Party doing more on race than the Republican Party? 22 The Democrats does more for the Α. Yes, yes. smaller guy. 23 I don't know whether it's intentionally they do it for the black race or it just happen 24

25 because they're doing a favor for the other majority.

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So, anyway, for some reason, the Republicans are able 1 to not do anything for the black race at all. And I 2 3 think that's a written issue. They do it -- you know, they just purposely do it, okay. They cut out 4 5 beneficial things that my race of people need. 6 To me, the Republican Party is absolutely without a doubt either callous or just plain and 7 8 simply racist. It's one or the other because they do nothing, absolutely nothing, for the black race of 9 10 America. Let's say there were another party -- I'll 11 Ο. just make up a party -- a blue party that came along 12 and had a platform that was responsive to African 13 14 American needs especially on issues of race. Do you believe that you would consider supporting that party 15 or other African Americans in your community? 16 17 Α. Sure. MR. TYSON: I object. It calls for 18 19 speculation. You can answer. Because if you're 20 THE WITNESS: Sure. basing this testimony on me, absolutely, because 21 22 I'm looking for -- I'm looking for a leg up. I'm 23 looking for upward mobility. I'm looking for this. Now, if the blue party comes and tells me, 24 25 Marion, I'm going to do this so that -- I'm going