IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
EASTERN DIVISION

RODNEY D. PIERCE; *et al.*, Plaintiffs, v. THE NORTH CAROLINA STATE BOARD OF ELECTIONS; *et al.*, Defendants.	Case No. 4:23-cv-193-D

NATURE OF THE CASE

The only thing "egregious" about this case, Memorandum in Support of Motion for Preliminary Injunction, D.E. 17, ("Mem.") 1, is the racial gerrymandering that would result if the Court accepts Plaintiffs' erroneous position. North Carolina redistricting plans have experienced virtually constant litigation for the past decade, and the one "clear-cut" proposition, *id.*, that has emerged is that voting in the State is not racially polarized at legally significant levels. On that basis, a three-judge federal court invalidated all 28 of the State's majority-minority legislative districts last decade, *Covington v. North Carolina*, 316 F.R.D. 117, 169 (M.D.N.C. 2016), and evidence and findings in recent state-court litigation have consistently confirmed that no majority-minority district is necessary or justified under present electoral conditions. Plaintiffs make a familiar error in presenting evidence of "statistically significant" bloc voting, not *legally* significant bloc voting, and their demand to dismantle the State's formulaic county groupings for

predominantly racial reasons has no basis in law or fact. Simply stated, §2 of the Voting Rights Act does not compel the race-based remedy Plaintiffs seek.

In all events, no emergency injunction can issue because the candidate-filing period has come and gone, absentee voting begins on January 19, and federal intrusion into the election process is unwarranted. There is no time to effectuate the relief Plaintiffs demand, which is certainly not "limited and straightforward." Mem. 7. Plaintiffs promise that their proposed remedy will leave "all other districts in the 2023 enacted map wholly untouched," *id*., and that only a handful of districts would need reconfiguring. But their majority-minority illustrative district resets the State's county groupings, which would send shock waves across the plan and potentially mandate that many Senate districts be redrawn. An injunction now would risk an election meltdown. The Court should deny the motion without argument.

BACKGROUND

After each decennial census, "States must redistrict to account for any changes or shifts in population." *Georgia v. Ashcroft*, 539 U.S. 461, 489 n.2 (2003). In North Carolina, the State Constitution commits that task solely to the General Assembly. N.C. Const. art. II, §§3, 5. "Redistricting is never easy." *Abbott v. Perez*, 138 S. Ct. 2305, 2314 (2018). The General Assembly is subject to "complex and delicately balanced requirements regarding the consideration of race" under federal law, as well as "special state-law districting rules." *Id.* This case does not occur against a blank slate and must be understood against the backdrop of those principles and North Carolina's history in attempting to implement them.

Federal Requirements. "The Equal Protection Clause of the Fourteenth Amendment...prevents a State, in the absence of 'sufficient justification,' from 'separating its citizens into different voting districts on the basis of race.'" *Cooper v. Harris*, 581 U.S. 285, 291

(2017) (citation omitted). Under the governing framework, a state's predominant use of race in redistricting is unconstitutional unless it is narrowly tailored to a compelling interest. *Id.* at 1464-65.

At the same time, the VRA "pulls in the opposite direction: It often insists that districts be created precisely because of race." *Abbott*, 138 S. Ct. at 2314. VRA §2 requires majority-minority districts upon proof that "members of a [protected] class…have less opportunity than other members of the electorate to participate in the political process and to elect representatives of their choice." 52 U.S.C. §10301(b). Plaintiffs alleging vote dilution under §2 must prove "three threshold conditions": that the minority relevant group is "'sufficiently large and geographically compact to constitute a majority' in some reasonably configured legislative district"; that the group is "politically cohesive"; and that a white majority votes "'sufficiently as a bloc' to usually 'defeat the minority's preferred candidate.'" *Cooper*, 581 U.S. at 301-02 (citation omitted). "If a plaintiff makes that showing, it must then go on to prove that, under the totality of the circumstances, the district lines dilute the votes of the members of the minority group." *Abbott*, 138 S. Ct. at 2331. The Supreme Court has long assumed that a state that creates a majority-minority district for predominantly racial reasons can only justify that choice under strict scrutiny by establishing (at the time of redistricting) the three *Gingles* preconditions. *Id.* at 2309-10. But if the state lacks a strong basis in evidence to believe that each is met, the majority-minority district will be an unconstitutional racial gerrymander. *See Cooper*, 581 U.S. at 301-02.

State Requirements. The North Carolina Constitution's Whole County Provisions ("WCP") dictate that "[no] county shall be divided in the formation of a Senate district." N.C. Const. art. II, §3; *see id.* art. II, §5 (same for House districts). Although the federal one-person, one-vote rule and (in some instances) the VRA render strict compliance with the WCP impossible,

the North Carolina Supreme Court resolved this tension by interpreting the WCP to forbid county lines from being transgressed "for reasons unrelated to compliance with federal law." *Stephenson v. Bartlett*, 355 N.C. 354, 371, 562 S.E.2d 377, 389 (2002) (*Stephenson I*).

The court therefore directed that "legislative districts required by the VRA" be "formed prior to creation of non-VRA districts," that total-population deviations "be at or within plus or minus five percent for purposes of compliance with federal 'one-person, one-vote' requirements," and that county groupings be identified consistent with those federal rules to ensure that county lines are followed except where federal law otherwise requires. *See id.* at 383, 562 S.E.2d at 396-97. As Plaintiffs acknowledge (Mem. 9), the WCP county groupings and traversal formula is objectively ascertainable. *Id.*; *see also Stephenson v. Bartlett*, 357 N.C. 301, 302, 582 S.E.2d 247, 248 (2003) (*Stephenson II*); *Dickson v. Rucho*, 367 N.C. 542, 571-72, 766 S.E.2d 238, 258 (2014), *vacated on other grounds*, 575 U.S. 959 (2015).

North Carolina Litigation History. In the 1990 redistricting cycle, the Supreme Court first recognized the racial-gerrymandering claim adjudicating a challenge to North Carolina's CD1 and CD12, *Shaw v. Reno*, 509 U.S. 630 (1993) (*Shaw I*), ultimately determining that CD12 was a racial gerrymander because the district did not satisfy the *Gingles* compactness requirement, *Shaw v. Hunt*, 517 U.S. 899, 906 (1996) (*Shaw II*). In *Cooper*, the Court again encountered CD1 and CD12 and invalidated both. 581 U.S. at 322-23 As relevant here, it concluded that race predominated in CD1 because the General Assembly "purposefully" made it a majority-minority district and moved a significant number of voters to achieve that end. *Id.* at 300. The Court then determined that CD1 failed strict scrutiny because the third *Gingles* precondition was not met: evidence before the General Assembly demonstrated that a district below a 50% Black voting-age population ("BVAP") majority (known as a "crossover" district) would provide equal minority opportunity

to elect and that there was no reason to believe "a plaintiff could establish…effective white bloc voting." *Id.* at 304. CD1 occupied various counties, including Northampton, Hertford, Halifax, Warren, Bertie, Gates, Chowan, and Washington, *see id.* at 325, the same counties at issue here, *see* Mem. 1, 6, 10-11.

Legislative redistricting has proven equally contentious in North Carolina. *Bartlett v. Strickland*, 556 U.S. 1 (2009), arose out of Pender County, where the General Assembly departed from the WCP formula to create a district with "an African-American voting-age population of 39.36 percent." *Id.* at 7 (plurality opinion). Both the United States and North Carolina Supreme Courts held that this departure from state constitutional requirements was not justified by §2, because it does not require districts "in which minority voters make up less than a majority of the voting-age population" (i.e., crossover districts). *Id.* at 13; *see also id.* at 11, 14. Accordingly, the WCP—not §2—controlled the district configuration.

After that experience, during 2011 redistricting, the General Assembly hired an expert to conduct a polarized voting study to ascertain the State's §2 obligations. *Covington,* 316 F.R.D. at 169. Based on the expert's conclusion that voting was racially polarized—and recognizing that crossover districts are not mandated by §2—the General Assembly included 28 majority-minority districts in the 2011 House and Senate plans, seeking to achieve proportionality, *see id.* at 132–33.

A subsequent suit challenged each of these districts as racial gerrymanders, and it succeeded. First, the *Covington* three-judge district court found race predominated in each challenged district because of the way the General Assembly sought VRA compliance and its goal of drawing majority-minority districts under the VRA "first, before any other 'non-VRA' districts were drawn" and because that goal required departure from the WCP formula. *Id.* at 130-31; 138-39. Second, it found that the use of race was not narrowly tailored, even though the General

Assembly relied on expert polarization analysis, because neither that nor any other analysis "made any determination whether majority bloc voting existed at such a level that the candidate of choice of African-American voters would usually be defeated without a VRA remedy."[1] *Id.* at 168. In other words, even if voting is polarized, polarization is not "legally significant" unless white bloc voting is sufficient to defeat Black-preferred candidates in districts below 50% BVAP. *Id.* at 168-69. The *Covington* court enjoined the 2011 plans. But it made "no finding that the General Assembly acted in bad faith or with discriminatory intent." *Id.* at 124 n.1. That is, the *Covington* court determined that the General Assembly made only a legal mistake in considering race in reliance on a statistical analysis that failed to establish the third *Gingles* precondition. The Supreme Court summarily affirmed that decision. *North Carolina v. Covington*, 581 U.S. 1015 (2017).

The Race-Neutral Approach. After being afforded the opportunity to remedy the federal-law violation, the General Assembly in 2017 adopted a different approach by adopting a criterion of race-neutrality. *Covington v. North Carolina*, 283 F. Supp. 3d 410, 418 (M.D.N.C. 2018) (quoting the criterion). The General Assembly implemented that criterion in the remedial redistricting. To be sure, the *Covington* court itself considered racial data, *see id.* at 421, and ultimately again made alterations in small portions of the General Assembly's plans. *Id.* at 449. The *Covington* court, however, did not find that §2 required any majority-minority districts, and it affirmed most of the 2017 districts. *Id.* at 458.

In 2018, different plaintiffs—represented by the legal team that brings this suit—filed a suit in state court, challenging large swaths of the 2017 legislative plans under a novel state constitutional doctrine purportedly prohibiting "partisan" gerrymandering. *Common Cause v.*

[1] The court "express[ed] no view as to whether the *Stephenson* cases require that VRA districts be drawn first both in priority and in time." *Covington*, 316 F.R.D. at 132 n.12.

Lewis, No. 18-cvs-014001, 2019 WL 4569584, at *1-2, 38 (N.C. Super. Sep. 03, 2019). In September 2019, a three-judge panel invalidated the plans. *Id.* at *135. During the subsequent redistricting, the General Assembly adopted the strategy it utilized after the *Covington* ruling, and race was not used. The *Lewis* court had—at the prompting of the lawyers who bring this suit—imposed severe restrictions on racial considerations by, *inter alia*, (1) forbidding the General Assembly from asserting that consideration of race was necessary in certain county groupings where expert evidence had shown it was not necessary and (2) requiring the General Assembly to "provide evidentiary support" for any asserted need to consider race. *Id.* at *133.

The *Common Cause* plaintiffs presented a brief and a comprehensive expert study addressing various county groupings in North Carolina and opining that legally significant white bloc voting did not exist anywhere a majority-Black district could be drawn, because "the average minimum BVAP necessary for African Americans to elect candidates of their choice" was below 50%. Ex. 1, at 6, 7-32. On that basis, the state court entered an order finding that the *Gingles* preconditions were not satisfied in any of the areas addressed. Ex. 2, Order. Although the brief, expert report, and order did not explicitly address elections in the counties at issue here, the expert's merits-phase supporting data and tables did and showed victories for Black candidates of choice in districts below 50% BVAP. Ex. 3, Handley Backup Data Senate Tables (SD3, SD4, and SD5). No portion of the 2019 plans were challenged under §2.

The 2020 Redistricting Cycle. The 2021 plans, adopted on November 4, 2021, were likewise drawn without racial data. *See NCLCV v. Hall*, Nos 21 CVS 015426, 21 CVS 500085, 2022 WL 124616 at *9, FOF ¶54 (Wake Sup. Ct. Jan. 11, 2022). The General Assembly determined there were two permissible *Stephenson* county groupings for the Senate Plan in the

northeastern part of the State.[2] Plaintiffs, including some represented by the same counsel as Plaintiffs in this matter, challenged the 2021 legislative and congressional plans (the "2021 Plans") under theories of partisan gerrymandering, but not under the VRA. In February 2022, the North Carolina Supreme Court invalidated the 2021 Plans under this theory. *See Harper v. Hall*, 380 N.C. 317, 868 S.E.2d 499 (2022) (*Harper I*). During the remedial redistricting phase, the General Assembly selected the alternative Senate county grouping configuration for the northeastern part of the state in an effort to remedy the alleged "partisan gerrymandering."[3]

In evaluating the remedial redistricting plans, both the state trial court and North Carolina Supreme Court considered whether §2 liability might arise under the General Assembly's remedial plans, and both concluded that a polarized voting analysis of Dr. Jeffrey Lewis, who advised the General Assembly, demonstrated that §2 liability would not arise. *Harper v. Hall*, 383 N.C. 89, 123, 881 S.E.2d 156, 180 (2022) (*Harper II*). The North Carolina Supreme Court observed that, while crossover districts might improve minority opportunity, federal law "do[es] not require the General Assembly to create functioning crossover districts." *Id.* at 124, 881 S.E.2d at 180.

The North Carolina Supreme Court subsequently re-heard the case and reversed its prior ruling on the partisan-gerrymandering question and permitted the General Assembly to redraw the State's legislative and congressional districts without encumbrance of that novel (and erroneous) doctrine. *Harper v. Hall*, 384 N.C. 292, 886 S.E.2d 393 (2023) (*Harper III*). The General

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[2] These findings were confirmed by Dr. Jonathan Mattingly, an expert who was hired in prior litigation by Plaintiffs' counsel in this matter. *See NCLV*, 2022 WL 124616 at *11, FOF ¶59-60. A copy of the 2021 Senate Plan with the county groupings can be found here: https://www.ncleg.gov/Files/GIS/Plans_Main/Senate_2021/SL%202021-173%20Senate%20-%2011%20x%2017%20Map.pdf

[3] A copy of the 2022 Senate Plan with County Grouping configurations can be found here: https://www.ncleg.gov/Files/GIS/Plans_Main/Senate_2022/SL%202022-2%20Senate%20-%2011%20x%2017%20Map.pdf (While currently numbered as SD 2, this district was previously numbered as SD 3)

Assembly enacted the challenged Senate plan on October 25, 2023 (the "Senate Plan"). Before doing so, it conducted public hearings across the state, including one in Elizabeth City, and accepted comments from an online public portal. Ex. 4, 9.27 Public Hearing Tr. 4:6-15. This was in addition to the 13 hearings held after the 2020 census data was released. *See NCLCV*, 2022 WL 124616 at *10 FOF ¶55-56. The Senate Redistricting and Elections Committee, consistent with past practice, adopted criteria, including equal population, traditional redistricting principles, compactness, contiguity, respect for existing political subdivisions, political considerations and incumbent residence, along with the WCP rules for legislative maps. Ex. 5, 10.19.23 Senate Redistricting and Elections Committee Meeting Tr. 4:2-12. The Committee's co-chair, Senator Hise, testified that no racial data was used to draw maps *Id.* 4:13-16, given that the predominant use of race violates the federal constitution under the "Cooper and Covington cases." *Id.* 4:17-25.

Senator Hise also addressed the VRA, noting that there "must be a strong basis in evidence of [the] three *Gingles* Criteria" to justify the use of race under the "totality of the circumstances." *Id.* 5:1-8. Senator Hise noted that "[p]ast decisions and court records demonstrate that to this point nowhere in North Carolina can anyone provide evidence of the three Gingles conditions" *Id.* 5:9-12, that "in the absence of any evidence of the three Gingles preconditions" the chairs elected not to use race to "protect the state from lawsuits alleging illegal racial gerrymandering" *Id.* 5:12-17, that racial data would not have been helpful in reaching any political or legislative redistricting goal, and that any political considerations were informed by political, not racial, data. *Id.* 5:18-23.

Upon the public filing of the proposed maps, Senator Hise directed the non-partisan Central Staff to load racial data into Maptitude for the first time, to create statpacks with racial data for the committee members and the public. *Id.* 5:24-6:15. Senator Hise stated that the Chairs would "consider any evidence that a member of this Committee or a third party advocating altering plans

for racial reasons brings forth that provides a strong basis in evidence that the Gingles preconditions are present in a particular area of the state." *Id.* 6:22-7:6. And that "[o]nly then will the chairs consider using race in amending the districts." *Id.* Neither Plaintiffs, nor their Counsel submitted evidence to the Committee.[4] When questioned about potential VRA liability, Senator Hise referred committee members to studies "regarding racial polarization [that] were done as part of the lawsuit a year and half ago" and since the census data was released. *Id.* 13:4-7.

Plaintiffs seek to create their demonstrative districts out of portions of SD1, SD2, and SD11. Each of these districts represent single district *Stephenson* groupings which are identical to the Senate 2021 Plan, which was never challenged under the VRA. Senator Daniel testified about the formation of these districts:[5]

- SD1 was "created by the county grouping choice"[6] in the northeastern part of the state containing the whole counties of Northampton, Bertie, Hertford, Gates, Perquimans, Pasquotank, Camden, Currituck, Tyrell, and Dare." *Id.* 46:12-18. Senator Daniel noted that this configuration kept intact four of the five finger counties in northeastern North Carolina. *Id.* 46:18-21. Senator Daniel also noted that many of the district's residents work or travel frequently to Virginia's tidewater, and that 7/10 of the counties and 81% of the population were in the Norfolk media market. *Id.* 46:22-47:2.

- SD2 "follows the Roanoke River from Warren county to the Albemarle Sound in Washington County" and noted that Chowan county, directly across from the Albemarle Sound was also included in this district. Senator Daniel testified that the Pamlico Sound and River were also included in the district, as was Carteret county, which spans the inner and outer banks. *Id.* 47:12-22. Senator Daniel noted that 5/8 counties and 2/3 of the population lived in the Greenville media market. *Id.* 47:23-48:4.

[4] The only additional evidence received was from the Southern Coalition for Social Justice, who asked that the county grouping for SD 1 and 2 be changed to the alternate county grouping used in 2022. They did not request any majority-minority districts.

[5] A Map of the Senate Plan with the county groupings can be found at https://www.ncleg.gov/Files/GIS/Plans_Main/Senate_2023/SL%202023-146%20Senate%20-%2011%20x%2017%20Map.pdf

[6] In 2023, the General Assembly returned to the county grouping configuration from the 2021 Plan.

- SD11 was created by the base county grouping map of Vance, Franklin, and Nash counties. *Id.* 50:12-16.

The Instant Lawsuit. Plaintiffs filed this suit 26 days after the Senate Plan was enacted and moved for provisional relief on the 28th day. D.E. 1, 16. In tension with their prior advocacy, Plaintiffs' counsel insist that the General Assembly's failure to create a majority-minority Senate district in Vance, Warren, Halifax, Northampton, Hertford, Bertie, Martin, and Washington Counties amounts to an "egregious and clear-cut violation of Section 2." Mem. 1. Plaintiffs propose two alternatives, both of which would destroy the State's county groupings. *Id.* at 10-11. One configuration (Demonstration B-1 and B-2) creates a crossover district of 48% BVAP. Mem. 11; D.E. 17-1 ("Esselstyn Rep.") 13. The other (Demonstration A) includes a majority-BVAP district that so thoroughly breaks up the State's county groupings that implementing it would likely require reconfiguring many Senate districts. *See* Mem. 10. Plaintiffs demand emergency relief in time for the 2024 primary. Absentee voting begins January 19. *See* Part II, *infra*.

THE LEGAL STANDARD

"A plaintiff seeking a preliminary injunction must establish that he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest." *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008). "[P]reliminary injunctions are extraordinary remedies involving the exercise of very far-reaching power to be granted only sparingly and in limited circumstances." *MicroStrategy Inc. v. Motorola, Inc.*, 245 F.3d 335, 339 (4th Cir. 2001) (internal quotation marks omitted).

Because "[t]he rationale behind a grant of a preliminary injunction has been explained as preserving the status quo," *Hazardous Waste Treatment Council v. South Carolina*, 945 F.2d 781, 788 (4th Cir. 1991) (citation omitted), "[m]andatory preliminary injunctive relief"—i.e., relief that

"goes well beyond simply maintaining the status quo *pendente lite*"— "in any circumstance is disfavored." *Taylor v. Freeman*, 34 F.3d 266, 270 n.2 (4th Cir. 1994) (citation omitted). Plaintiffs seek to alter the status quo by compelling the State to adopt redistricting configurations substantially dissimilar from those the State has currently or recently employed. *See* Mem. 1, 6, 9–11; Esselstyn Rep. 7-10, 12-15. Their request is presumptively "disfavored" and can be justified only by "the most extraordinary circumstances." *Taylor*, 34 F.3d at 270 n.2.

ARGUMENT

I. Plaintiffs Will Not Succeed on the Merits

A. Plaintiffs Lack a Right of Action

As the Eighth Circuit recently held, there is no private right of action to enforce §2. *Arkansas State Conf. NAACP v. Arkansas Bd. of Apportionment*, 86 F.4th 1204, 1206-07 (8th Cir. 2023). That view is likely to prevail, and Plaintiffs in all events cannot make a clear showing given this uncertainty. "[P]rivate rights of action to enforce federal law must be created by Congress." *Alexander v. Sandoval*, 532 U.S. 275, 286 (2001). "The judicial task is to interpret the statute Congress has passed to determine whether it displays an intent to create not just a private right but also a private remedy." *Id.* As will be shown in more detail in Legislative Defendants' forthcoming motion to dismiss, the VRA contains neither a private right nor a private remedy.

Plaintiffs also have no recourse to a right of action under 42 U.S.C. § 1983. *See Gonzaga Univ. v. Doe*, 536 U.S. 273, 280 (2002). Under §1983, "the initial inquiry—determining whether a statute confers any right at all—is no different from the initial inquiry in an implied right of action case," *id.* at 285, so the absence of a private right ends that inquiry. And the VRA's remedial scheme supplants any presumptive §1983 remedy, as the forthcoming motion to dismiss will show.

B. Plaintiffs' §2 Claim Fails Numerous *Gingles* Elements

Even assuming a cause of action, Plaintiffs are unlikely to succeed under §2. As explained, Plaintiffs alleging vote dilution under §2 must prove the *Gingles* preconditions and that vote dilution is occurring under the totality of the circumstances. *Cooper*, 581 U.S. at 301-02 (citation omitted); *Abbott*, 138 S. Ct. at 2331. Plaintiffs are unlikely to make the necessary showings.

1. The First Precondition

Plaintiffs' illustrative plans do not establish the first precondition, which is "focused on geographical compactness and numerosity." *Allen v. Milligan*, 599 U.S. 1, 18 (2023).

a. Demonstration B

Demonstration District B-1 does not satisfy the numerosity requirement. Plaintiffs barely defend it because (as they have to admit) its BVAP of 48.4% is "shy of 50%." Mem. 11; Esselstyn Rep. 14; Ex. 6 Expert Report of Dr. Sean Trende ("Trende Rep.") 8. The numerosity element is not met where "the minority group makes up less than 50 percent of the voting-age population in the potential election district." *Bartlett*, 556 U.S. at 12 (plurality opinion); *see also Hall v. Virginia*, 385 F.3d 421, 428–29 (4th Cir. 2004). As in *Bartlett*, which found §2 does not require the State to sacrifice the WCP formula for a district below 50% BVAP, 556 U.S. at 7, Plaintiffs admit that Demonstration Districts B-1 and B-2 contravene the WCP, Mem. 11, and they cannot show §2 liability.

Plaintiffs observe that the Black citizen voting-age population ("CVAP") of Demonstration District B-1 is 50.19%. Mem. 11; Esselstyn Rep. 14. "However, CVAP has been applied only where there is a significant noncitizen population." *Pope v. Cnty. of Albany*, No. 1:11-CV-0736, 2014 WL 316703, at *12 (N.D.N.Y. Jan. 28, 2014). Otherwise, the first precondition looks to "the *voting-age* population in the potential election district." *Bartlett*, 556 U.S. at 12 (emphasis added); *accord Hall*, 385 F.3d at 430. The purpose of utilizing CVAP is for "refinement" of VAP figures

to account for "a significant difference in the citizenship rates of the majority and minority populations," as often occurs in cases involving Hispanic populations. *Negron v. City of Miami Beach, Fla.*, 113 F.3d 1563, 1568 (11th Cir. 1997). CVAP is "is less reliable" than VAP, *Pope*, 2014 WL 316703, at *13, which is reported in the decennial census, an enumeration of the population in each U.S. jurisdiction, *Dep't of Com. v. U.S. House of Representatives*, 525 U.S. 316, 342–43 (1999). By contrast, CVAP estimates are drawn from the American Community Survey ("ACS") as "a rolling statistical estimate with accompanying margins of error." Brief for the United States as Amicus Curiae, *Evenwel v. Abbott*, No. 14-940, 2015 WL 5675829, at *22 (filed Sep. 2015). The ACS "is less reliable than Census data and not intended to be used in redistricting." *Pope*, 2014 WL 316703, at *13 n.22 (citation omitted). It is the wrong metric here.

b. Demonstration District A

Demonstration District A fails the first precondition on multiple grounds.[7]

First, it is not "reasonably configured." *Allen*, 599 U.S. at 20. This inquiry looks to "traditional districting criteria," including maintaining "county lines." *Id.* at 20; *Abrams v. Johnson*, 521 U.S. 74, 92 (1997). As explained, county lines occupy a preeminent place among North Carolina's legislative redistricting criteria. *Stephenson I*, 355 N.C. at 366, 562 S.E.2d at 386 (citing "the long-standing tradition of respecting county lines during the redistricting process in this State"); N.C. Const. art. II, §3; *see id.* art. II, §5 (same for House districts). Demonstration District A contravenes the WCP by drawing a district that breaks the single-district county

[7] Many of these failings likewise plague Demonstration Districts B-1 and B-2, including numerous violations of the WCP. While Demonstration Districts B-1 and B-2 break the county groupings, this configuration also illegally divides Pasquotank county to pick up 14% of the B-1's Black population and form a crossover district — the same scenario deemed unconstitutional by the North Carolina Supreme Court in *Pender County*, 649 S.E.2d 364, 361 N.C. 491 (2007), *affirmed Bartlett*, 556 U.S. 1. Trende Rep. 8. However, the Court need not reach these issues because they clearly fail the numerosity requirement.

groupings of SD1, SD2, and SD11 by combining three counties from SD1 (Northampton, Hertford, Bertie), four counties from SD2 (Warren, Halifax, Martin, Washington), and one from SD11 (Vance). Mem. 6, 9-11, Adopting Demonstration District A would inflict such havoc that numerous Senate districts would likely need to be redrawn. Districts that dismantle the WCP are not "reasonably configured." *Allen*, 599 U.S. at 20. The Supreme Court recently held that §2 "never requires adoption of districts that violate traditional redistricting principles." *Id.* at 30 (citation and alteration marks omitted); *see also id.* at 43 (Kavanaugh, J., concurring) (recognizing that §2 does not require districts that flout "county, city, and town lines").

Plaintiffs appear to believe that county boundaries are optional because *Stephenson I* and its progeny authorize departures from county lines for "legislative districts required by the VRA." *Stephenson I*, 355 N.C. at 383, 562 S.E.2d at 396-97. But that is circular logic. Districts that do not comply with a state's neutral criteria are not reasonably configured and §2 does not require them. *Allen*, 599 U.S. at 20. The North Carolina Supreme Court's recognition that federal law overrides state law did not alter the scope of federal law, authorize federal courts to override county boundaries more than necessary to implement federal dictates, or declare that districts dismantling county groupings are "reasonably configured." Rather, *Stephenson I* referenced federal dictates that do not have a "reasonable configuration" requirement, including the one-person, one-vote principle and the non-retrogression command of VRA §5. *See Stephenson I*, 355 N.C. at 382-83, 562 S.E.2d at 396-97.[8]

Second, Demonstration District A is a racial gerrymander. Section 2 does not require majority-minority districts drawn with "a 'quintessentially race-conscious calculus,'" *Allen*, 599

[8] Plaintiffs criticize enacted SD2, Mem. 10-11, but elsewhere acknowledge (as they must) that SD2 simply occupies a county grouping created by the WCP formula, Esselstyn Rep. 212. This illustrates the paramount supremacy of the county-line criterion in North Carolina.

U.S. at 31 (plurality opinion) (citation omitted), which occurs where the map-maker "subordinate[s] traditional race-neutral districting principles…to racial considerations," *Bethune-Hill v. Va. State Bd. of Elections*, 580 U.S. 178, 187 (2017) (citation omitted). For North Carolina legislative plans, application of that test has proven straightforward because departures from the WCP formula to hit racial targets present clean cases of predominance. *See Covington*, 316 F.R.D. at 131-32, 138-39. Plaintiffs ignore the lesson learned in *Covington*. Plaintiffs' expert deemed hitting 50% targets (measured by both BVAP and CVAP) more important than North Carolina redistricting principles, opting to destroy State constitutionally-mandated districts to achieve a singular goal. Esselstyn Rep. 16. This is further demonstrated by the counties chosen for inclusion in Demonstration District A. Each county present in the district is required to achieve a majority Black District. Trende Rep. 5. And even if the counties were split, which would violate *Stephenson*, only 2 or 3 precincts could be removed before the district would lose majority-Black status. *Id.* To be clear, Mr. Esselstyn drew with such surgical precision that nearly every Black resident is needed to create Demonstrative District A as a majority-Black district. *Id.* "While the line between racial predominance and racial consciousness can be difficult to discern," *Allen*, 599 U.S. at 31, it is not here.

Third, Plaintiffs have not proven that Demonstration District A can be part of a reasonably configured Senate plan governing North Carolina. Plaintiffs seeking §2 relief customarily present entire plans with additional majority-minority districts, not isolated districts. *See Allen*, 599 U.S. at 19-21; *League of United Latin Am. Citizens v. Perry*, 548 U.S. 399, 435 (2006). That type of showing is necessary because there would be no value in a showing that a majority-minority district is reasonably configured if that accomplishment will turn neighboring districts, or the plan, into "a monstrosity." *Allen*, 599 U.S. at 28 (quoting *Miller v. Johnson*,, 515 U.S. 900, 909 (1995)).

Here, Plaintiffs present only isolated districts, not entire plans. That failing is not a technicality. As explained *supra* pp. 13-16 Demonstration District A destroys the State's county groupings. *See* Mem. 10-11; Trende Rep. 4-5. As also explained, assuming the VRA requires certain districts, State precedent requires that the General Assembly configure them "prior to…non-VRA districts," *Stephenson I*, 562 S.E.2d at 396-97, because the county-grouping formula governs the entire State and builds upon the placement of VRA districts, *see Dickson*, 367 N.C. at 571-72, 766 S.E.2d at 258 (explaining the order of operations). By breaking up the county groupings in northeastern North Carolina, Plaintiffs' Demonstration District A would reset the county-grouping formula. Trende Rep. 5. Any order adopting Demonstration A will send shockwaves that will likely result in a significant re-draw. *Id.* Without a statewide illustrative map, it is impossible to know how many *Stephenson* groupings will be destroyed by Demonstrative A. Because Plaintiffs have not proven that this re-draw will result in reasonably configured districts elsewhere, they fail the first precondition.

Fourth, there is particular reason for concern of impact on neighboring districts, given that enacted SD1 and SD2 border SD5, which has a BVAP of 40.35%, Esselstyn Rep. 10, and likely qualifies as a "crossover" district, i.e., a district "in which minority voters make up less than a majority of the voting-age population" but where "the minority population, at least potentially, is large enough to elect the candidate of its choice with help from voters who are members of the majority." *Bartlett*, 556 U.S. at 13 (plurality opinion). Plaintiffs concede SD5 is a current minority opportunity district. Mem. 10. Neighboring SD11, at 36.65% BVAP, may also qualify as a crossover district. Esselstyn Rep. 10. Although §2 does not mandate crossover districts, states may create them "as a matter of legislative choice or discretion," *id.* at 23, and §2 can "be *satisfied by* crossover districts," *Cooper*, 581 U.S. at 305. Demonstration District A dismantles SD 1, 2, and

11, reconfiguring the county groupings and district lines, which in turn, may dismantle districts like SD 5 that currently provide equal minority opportunity.

But "a § 2 violation is proved for a particular area," *Shaw II*, 517 U.S. at 917, so dismantling one district for some minority voters (in SD5) to create another district for other minority voters (Demonstrative A) is improper, *see id.* at 917 (rejecting the notion that a majority-Black district may be drawn "anywhere" as "a misconception of the vote-dilution claim"); *Johnson v. DeGrandy*, 512 U.S. 997, 1019 (1994) (rejecting the notion that "the rights of some minority voters under §2 may be traded off against the rights of other members of the same minority class"). Without establishing the impact of Demonstration District A on minority opportunity elsewhere, Plaintiffs show "that lines could have been drawn elsewhere, nothing more." *DeGrandy*, 512 U.S. at 1015.

2. The Third Precondition

a. Majority-Minority Districts Are Unnecessary and Unjustified

Plaintiffs are also unlikely to establish the third precondition, which requires proof of an "amount of white bloc voting that can generally 'minimize or cancel' black voters' ability to elect representatives of their choice." *Gingles*, 478 U.S. at 56 (citations omitted). The best available evidence shows that a majority-Black district is unnecessary to ensure equal minority opportunity to elect in the districts that are destroyed to create Demonstrative A (SD1, SD2, SD5, SD11) and white bloc voting lacks legal significance.

While "the general term 'racially polarized voting' is defined much more broadly and simply refers to when different racial groups 'vote in blocs for different candidates,'" the "third *Gingles* inquiry is concerned only with 'legally significant racially polarized voting.'" *Covington*, 316 F.R.D. at 170 (citations omitted). "[A] general finding regarding the existence of any racially polarized voting, no matter the level, is not enough" to satisfy the third precognition. *Id.* "The key

inquiry…is whether racial bloc voting is operating at such a level that it would actually minimize or cancel minority voters' ability to elect representatives of their choice, *if no remedial district were drawn*." *Id.* at 168 (emphasis added) (quotation and edit marks omitted). Because a remedial district is a 50% plus one BVAP district, *Bartlett*, 556 U.S. at 19, there is no legally significant racially polarized voting if minority-preferred candidates have an equal opportunity to win districts at below 50% BVAP. *Id*. at 18; *Covington*, 316 F.R.D at 168-69.

The Supreme Court made this clear in *Bartlett*. In holding that §2 does not require "crossover" districts, the Court reasoned that "the majority-bloc voting requirement" will not "be met in a district where, by definition, white voters join in sufficient numbers with minority voters to elect the minority's preferred candidate." 556 U.S. at 16. The Court further explained that, where crossover voting is sufficient to create performing crossover districts, "majority-minority districts would not be required in the first place." *Id.* at 24.

The Supreme Court's summary affirmance in *Covington* confirmed this principle. The *Covington* court took issue with the General Assembly's decision to create majority-Black districts in North Carolina's legislative plans based on the advice of experts who found "statistically significant racially polarized voting in 50 of the 51 counties studied." *Covington*, 316 F.R.D. at 169 (quotation marks omitted). The Court criticized these experts for addressing "'racially polarized voting'" which "simply refers to when different racial groups 'vote in blocs for different candidates.'" *Covington*, 316 F.R.D. at 170. But they missed, the Court wrote, the "crucial difference between <u>legally significant</u> and <u>statistically significant</u> racially polarized voting." *Id.* (underlining in original). Whereas polarized voting can occur "when 51% of a minority group's voters prefer a candidate and 49% of the majority group's voters prefer that same candidate," *id.* at 170, "the third *Gingles* inquiry is concerned only with 'legally significant racially polarized

voting,'" *id.* (quoting *Gingles*, 478 U.S. at 51, 55-56). Non-actionable polarized voting becomes legally significant only when "racial bloc voting is operating at such a level that it would actually minimize or cancel minority voters' ability to elect representatives of their choice, if no remedial district were drawn." *Id.* at 168 (quotation and alteration marks omitted; emphasis added). The question is whether "the candidate of choice of African-American voters would usually be defeated *without a VRA remedy*." *Id.* (emphasis added). Because the third precondition was not shown, the court struck down the plan as a racial gerrymander, and the Supreme Court affirmed.

Plaintiffs' claim is likely to fail on this same basis. Their expert—like the experts in *Covington*—found "statistically significant racially polarized voting," D.E. 17-2, ("Barreto Rep.") 10; *see also id.* at 11, but not legally significant racially polarized voting. That doomed the General Assembly last decade and should doom the Plaintiffs here. *Covington*, 316 F.R.D. at 170. Dr. Barretto did not determine whether "a VRA remedy" in the form of a majority-BVAP district is necessary for equal minority opportunity. *Id.* at 168. As *Covington* explained, the way to determine whether majority-BVAP districts are necessary is a "district effectiveness analysis," which "determines the minority voting-age population level at which a district 'becomes effective in providing a realistic opportunity for voters of that minority group to elect candidates of their choice." *Id.* at 169 & n.46 (quotation and alteration marks omitted). But Dr. Barretto did not perform a district effectiveness analysis and offers no opinion that only with districts at or above 50% BVAP will minority voters be able to elect their candidates of choice in the relevant area. Moreover, Plaintiffs admit as much by drawing a 48.47% district (Demonstrative B-1) and stating it will perform. Mem. 13, 23, Esselstyn Rep. 13

This is unlikely to be shown. Legislative Defendants' expert, Dr. Alford, opines that it is unlikely any of these districts need a 50% BVAP for a Black candidate of choice to prevail. Ex. 7,

Report of Dr. John Alford ("Alford Rep.") 2. Moreover, the evidence *before the General Assembly at the time of drawing* clearly shows that SD1 and SD2 have high levels of white crossover support of 24% and 26%, respectively, in general elections, which is sufficient for Black candidates of choice to win without majority-minority districts. Ex. 8 December 28, 2021, Report of Dr. Jeffrey B Lewis in *NCLCV v. Hall*, ("Lewis Rep.") Table 1 p. 10. White crossover voting is also high in SD11, which contains Vance County, and an average BVAP of only 31% would enable the minority candidate of choice to be elected in general elections. *Id.* Analyzing Democratic primaries, Dr. Lewis showed white crossover support ranging from 45-49% in these districts, and an average BVAP percentage of 7-12% needed to win. *Id.* Table 2, p. 23. Voting is not polarized at legally significant levels.

Additional points of context demonstrate that the third precondition cannot be shown. One is that *Covington* involved some of the counties at issue here. *See* 316 F.R.D. at 151-52, 158-59. This includes then-SD4 (containing Vance, Warren, and Halifax counties) which the court invalidated because the third precondition was not established. *Id.* Moreover, the Supreme Court in *Cooper* found no legally significant racially polarized voting in last decade's rendition of CD1, 581 U.S. at 301-06, which occupied the same counties at issue here, *see id.* at 325. There is no reason to believe the third precondition can be satisfied in this case when it was not in *Cooper* or *Covington*. Further, evidence and court findings in both the *Common Cause* and *Harper* litigation established that legally significant polarized voting does not exist in North Carolina, and Plaintiffs' counsel sponsored evidence supporting those findings and showing they apply equally in the areas at issue in this case. *See supra* pp. 6-9

b. Polarization Is Political, Not Racial

North Carolina voting patterns lack legal significance for the additional reason that they reflect a partisan, not a racial, divide. The VRA "is a balm for racial minorities, not political ones—even though the two often coincide." *Baird v. Consol. City of Indianapolis*, 976 F.2d 357, 361 (7th Cir. 1992) (citation omitted). If "partisan affiliation, not race, best explains the divergent voting patterns among minority and white citizens," then there is no "legally significant" racially polarized voting under the third *Gingles* precondition. *League of United Latin Am. Citizens, Council No. 4434 v. Clements*, 999 F.2d 831, 850 (5th Cir. 1993) (en banc). This is so because "[t]he Voting Rights Act does not guarantee that nominees of the Democratic Party will be elected, even if Black voters are likely to favor that party's candidates." *Id.* at 854 (quotation omitted). VRA § 2 "is implicated only where Democrats lose because they are Black, not where Blacks lose because they are Democrats." *Id.* As the Fifth Circuit explained in *LULAC, Council No. 4434*, a majority of Justices in *Gingles* held §2 liability does not lie where different candidate preferences reflect "interest-group politics." *See id.* at 855-59.

Here, Plaintiffs' expert did not analyze whether voting patterns are polarized for partisan or racial reasons, and Dr. Alford's study shows that voting is divided along partisan lines and that "the race of the candidates does not appear to have a polarizing impact on vote choice." Alford Rep. 10. In all elections Dr. Alford studied, he found that partisan affiliation better predicted the choice of a voter than race. *Id.* at 12-13. For example, when comparing the 2020 US Senate election (which had two white candidates), with the 2022 US Senate Election (which had one white and one Black candidate), Dr. Alford's analysis revealed a higher level of white support for the Black Democratic candidate statewide, and in all areas of interest studied, than for the white Democratic candidate in 2020. *Id.* at 6-7. This pattern is again evident, with one exception, across all five Court

of Appeals races in 2020. *Id.* at 8-9. The 2020 Court of Appeals elections are highly probative for another reason: Dr. Alford's EI estimates (at table 3) clearly showed that Black Democrats, statewide and in all areas of interest studied, displayed a significant preference for a White Democratic candidate over a Black Republican candidate. *Id.* In fact, Black support behind all democratic candidates was nearly identical regardless of the race of the candidate.[9] *Id.* Plaintiffs are unlikely to succeed for this additional reason.

3. The Totality of the Circumstances

In all events, Plaintiffs are unlikely to make the "ultimate" showing of vote dilution under "the totality of the circumstances." *Gingles*, 478 U.S. at 78. "The ultimate determination of vote dilution under the Voting Rights Act…must be made on the basis of the 'totality of the circumstances.'" *Lewis v. Alamance County*, 99 F.3d 600, 604 (4th Cir. 1996) (quotation marks omitted). The factors germane to that inquiry, *see Gingles*, 478 U.S. at 36-37, cut against Plaintiffs.

First, "the policy underlying the state['s] use of" the challenged districts is not "tenuous," but compelling. *Id.* at 37 (citation omitted). As demonstrated, North Carolina's WCP principles represent a sovereign policy recognized at least as of 1776 and are implemented through objective, neutral, and non-arbitrary means. The State's interest in districts that adhere to county lines to the maximum extent possible "lies at the heart of representative government and thus must be treated with great respect." *Fusilier v. Landry*, 963 F.3d 447, 460 (5th Cir. 2020).

Second, the "extent to which voting in the elections of the state…is racially polarized" is limited at most. *Gingles*, 478 U.S. at 37. As shown, majority-minority districts are unnecessary in

[9] The one exception is the statewide estimate for the democratic candidate for Court of Appeals Seat #4 who received 98% instead of 99% of the Black vote.

North Carolina and in the areas relevant to this case, which indicates "substantial crossover voting," *Bartlett*, 556 U.S. at 24.

Third, there are no "other voting practices or procedures that may enhance the opportunity for discrimination against the minority group," such as "unusually large election districts, majority vote requirements, [or] anti-single shot provisions." *Gingles*, 478 U.S. at 37 (citation omitted). Plaintiffs point to past practices they believe were discriminatory, but the question here is whether the challenged scheme interacts with other mechanisms in the *present* to enhance the discriminatory impact of the challenged system. *See, e.g.*, *Wright v. Sumter Cnty. Bd. of Elections & Registration*, 979 F.3d 1282, 1296 (11th Cir. 2020) (finding majority-vote requirement enhanced impact of system lacking in majority-minority districts). Plaintiffs show nothing like that here.

Fourth, Black representatives have been elected to the North Carolina General Assembly in large numbers. *Gingles*, 478 U.S. at 37. Plaintiffs acknowledge that 21.6% of House members and 18% of Senate members are Black. Mem. 20; D.E. 17-3, "Burch Rep." 21-22. Plaintiffs claim Black voters are "underrepresented." Mem. 20. But the legal question is not whether Black voters are "underrepresented" under a standard of proportional representation, but whether "no members," or just a "few," "of a minority group have been elected to office over an extended period of time." S. Rep. 97-417 at 29, n.115 (1982). "Forcing proportional representation is unlawful and inconsistent with [the Supreme] Court's approach to implementing § 2." *Allen*, 599 U.S. at 28.

Fifth, Plaintiffs present no evidence of "a significant lack of responsiveness" in the General Assembly to minority needs. *Gingles*, 478 U.S. at 37 (citation omitted). Plaintiffs assert that a supposed "failure to remedy...socioeconomic disparities between Black and white North

Carolinians" proves a lack of responsiveness. Mem. 20. But responsiveness does not guarantee outcomes, and representative democracy is not magic, whereby an elected body can cure all manner of social ills by mere force of will. *See N.A.A.C.P., Inc. v. City of Niagara Falls, N.Y.*, 65 F.3d 1002, 1023 & n.24 (2d Cir. 1995).

Sixth, the evidence does not support Plaintiffs' assertion that North Carolina elections frequently see racial appeals to voters. *Gingles*, 478 U.S. at 37. Plaintiffs' expert, Dr. Burch, cites attack ads against Black candidates as evidence of racial appeals, even if they are not racial. Burch Rep. 20. For example, she cites a New York Times article regarding an advertisement about three opinions then-Justice Beasley joined involving child sex offenders, but the advertisements did not mention the race of the offenders. *Id.* at 20 n.47. This type of evidence proves only that Black candidates run for office in contested races and face harsh opposition, like all other candidates.

Finally, the Supreme Court has explained, one "may suspect vote dilution from political famine, but one is not entitled to suspect (much less infer) dilution from mere failure to guarantee a political feast." *DeGrandy*, 512 U.S. at 1017. Accordingly, vote dilution will ordinarily not be found where minority voters "would enjoy substantial proportionality" of equal-opportunity districts. *Id.* at 1014. The North Carolina Supreme Court recently found this to be satisfied without a majority-Black district in the region at issue. *Harper II*, 383 N.C. at 124, 881 S.E.2d at 180. Plaintiffs do not address this element and are unlikely to succeed at trial.

II. Plaintiffs Have Not Established That the Equitable Factors Favor an Exceptional Mandatory Injunction

Plaintiffs are not entitled to a preliminary injunction for the independent reason that the equities do not support one. *See Winter*, 555 U.S. at 25-26. The equities analysis in an election case is governed by the *Purcell* principle, "which establish[es] (i) that federal district courts ordinarily should not enjoin state election laws in the period close to an election, and (ii) that

federal appellate courts should stay injunctions when, as here, lower federal courts contravene that principle." *Merrill v. Milligan*, 142 S. Ct. 879 (2022) (Kavanaugh, J., concurring) (citing *Purcell v. Gonzalez*, 549 U.S. 1 (2006) (per curiam)). This principle, in fact, antecedes the *Purcell* decision by two generations, having its genesis in *Reynolds v. Sims*, 377 U.S. 533 (1964), which ruled that the lower court "acted wisely in declining to stay the impending primary election in Alabama," *id.* at 586, even though the challenged redistricting plan was plainly unconstitutional, *id.* at 545. "*Sims* has been the guidon to a number of courts that have refrained from enjoining impending elections," *Chisom v. Roemer*, 853 F.2d 1186, 1190 (5th Cir. 1988), "even in the face of an undisputed constitutional violation," *Sw. Voter Registration Educ. Project v. Shelley*, 344 F.3d 914, 918 (9th Cir. 2003); *see Wise v. Circosta*, 978 F.3d 93, 98–99 (4th Cir. 2020).

The *Purcell* principle applies here because the "State's election machinery is already in progress." *Reynolds*, 377 U.S. at 585. Plaintiffs acknowledge that the candidate filing period has come and gone (running from December 4 to December 15). Mem. 22. But Plaintiffs' discussion of the primary election is misleading: it is not "many months away." *Id.* Ballots will be sent to voters in North Carolina's no-excuse absentee system beginning January 19, 2024, and printing must begin before then. North Carolina State Board of Elections, *Upcoming Election, Overview of 2024 Elections*.[10] In-person early voting runs from February 15 to March 2, with election day for the primary on March 5. *Id.* Thus, the election is already beginning.

An injunction therefore cannot issue. In *Milligan*, the Supreme Court intervened to stay a three-judge panel's redistricting injunction, which was issued "seven weeks" before delivery of ballots for absentee voting in "the primary elections." 142 S. Ct. at 879 (Kavanaugh, J., concurring). According to the two Justices whose votes were decisive, the strength of the *Purcell*

[10] https://www.ncsbe.gov/voting/upcoming-election

principle, standing alone, compelled that result. *Id.* at 879-82. In this case, the earliest an injunction could issue would be three weeks before the beginning of absentee voting, making it a far more compelling *Purcell* case than *Milligan*. Notably, a stay was required in *Milligan*, even though the Supreme Court ultimately affirmed on the merits, concluding that the court "faithfully applied our precedents." *Allen*, 599 U.S. at 23. Around the same time, the Fifth Circuit declined to stay a June district-court injunction under §2 in Louisiana, despite that ballot-mailing would begin in September, calling *Milligan* "an outlier." *Robinson v. Ardoin*, 37 F.4th 208, 228-29 (5th Cir. 2022). That was erroneous. The Supreme Court promptly entered the stay the Fifth Circuit refused to enter. *Ardoin v. Robinson*, 142 S. Ct. 2892 (2022). Other courts have bought similar arguments; their injunctions were short lived. *See, e.g.*, *Karcher v. Daggett*, 455 U.S. 1303 (1982) (Brennan, J., in chambers); *Gill v. Whitford*, 137 S. Ct. 2289 (2017); *Rucho v. Common Cause*, 138 S. Ct. 923 (2018); *North Carolina v. Covington*, 138 S. Ct. 974 (2018); *Abbott v. Perez*, 138 S. Ct. 49 (2017); *North Carolina v. Covington*, 137 S. Ct. 808 (2017); *Perry v. Perez*, 565 U.S. 1090 (2011); *Miller v. Johnson*, 512 U.S. 1283 (1994); *Chabot v. Ohio A. Philip Randolph Inst.*, 139 S. Ct. 2635 (2019).

Plaintiffs' arguments to coax this Court down that tried and untrue path fail.

First, they analogize this case to litigation in 2022 in North Carolina state court. Mem. 22-23. But the Fourth Circuit has expressly rejected that analogy, holding that "*Purcell* is about *federal court* intervention" and does not cover "action by state courts." *Wise*, 978 F.3d at 99. Whatever might be said of the North Carolina courts' actions in 2022, it says nothing of this

Court's role here.[11] As *Milligan* shows, rescheduling the primaries and intervening in candidate qualification and ballot-mailing is not an option available to this Court.

Second, Plaintiffs say an injunction would not "cause any voter confusion" because it would "impact[]" just "candidate filing for two districts." Mem. 22. That is not true. As shown, it would throw ballot *mailing* and *printing* into disarray—which would obviously confuse voters—and Plaintiffs' only proposed majority-BVAP district (Demonstration District A) could (if implemented) require redrawing a significant number of the State's Senate districts. Moreover, the Court would not be entitled to implement a plan on its own prerogative; it must afford the General Assembly the first opportunity to cure any violation, *Reynolds*, 377 U.S. at 585–86. If the injunction stayed in *Milligan* was "a prescription for chaos for candidates, campaign organizations, independent groups, political parties, and voters," *Merrill*, 142 S. Ct. at 880 (Kavanaugh, J., concurring), the injunction demanded here is a prescription for a total meltdown.

Third, Plaintiffs erroneously suggest an injunction would have been appropriate on the unreasonable briefing schedule they demanded. Mem. 2. *Purcell* is not an excuse for plaintiffs to make redistricting "a game of ambush." *In re Landry*, 83 F.4th 300, 303 (5th Cir. 2023). Plaintiffs' "meritless" motion for emergency briefing, after they waited 28 days to file the instant motion, demanding that opposition briefs be filed in one business day, Order, D.E. 23 at 4, only proves that it was too late for an injunction when they first filed this motion.

Finally, Plaintiffs criticize the timing of the 2023 redistricting, but ignore that *Purcell* protects the "status quo" a State establishes, regardless of when it does so. *Wise*, 978 F.3d at 98.

[11] The 2022 North Carolina Supreme Court's actions blithely ignored binding precedent. In *Pender County*, the Court entered a final judgment declaring a crossover district drawn by the General Assembly illegal for violating the WCP in August of 2007 but stayed the remedy until after the 2008 election cycle to avoid disruption. 649 S.E.2d at 376.

The timing is materially akin to that in *Wise*, where the North Carolina executive and judicial branches altered state election law in late September 2020 based on pandemic-related concerns known long before, and the Fourth Circuit held that *Purcell* protected that choice, *id.* at 96-99, over the dissent's objection that the state action came too late, *id.* at 116-17 (Wilkinson, J., dissenting). Likewise, in *Milligan*, the Alabama legislature enacted the challenged congressional plan on November 3, 2021, suit was filed the same day, *Caster*, 2022 WL 264819, at *6, 15, and *Purcell* barred the injunction. Here, the General Assembly acted well within its discretion to establish the status quo through the challenged plan, enacted on October 25, 2023, with ample time for election administration. Moreover, Plaintiffs waited 28 days to bring the instant motion and—given that delay—stand in no position to blame the State for *Purcell*'s impact on their belated suit. And the General Assembly had good reasons to enact the plans when it did, as it faced a prolonged budget process, in addition to its other legislative action, that occupied its time and resources from the beginning of session until the budget became law. *See* H.B. 259 (enacted at N.C. Sess. Law 2023-134). As soon as a compromise was reached, the General Assembly turned to its redistricting obligation. As in *Wise* and *Milligan*, *Purcell* applies in full force.

CONCLUSION

The Court should deny Plaintiffs' motion for preliminary injunction.

Respectfully submitted, this the 22nd day of December, 2023.

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CERTIFICATE OF SERVICE

I, Phillip J. Strach, hereby certify that I have this day electronically filed the foregoing with the Clerk of Court using the CM/ECF system which will provide electronic notification to counsel of record.

This the 22nd day of December, 2023.

NELSON MULLINS RILEY & SCARBOROUGH LLP

/s/ Phillip J. Strach
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Exhibit 1

STATE OF NORTH CAROLINA

COUNTY OF WAKE

IN THE GENERAL COURT OF JUSTICE
SUPERIOR COURT DIVISION
18 CVS 014001

COMMON CAUSE, et al.,

Plaintiffs,

v.

DAVID LEWIS, IN HIS OFFICIAL CAPACITY AS SENIOR CHAIRMAN OF THE HOUSE SELECT COMMITTEE ON REDISTRICTING, et al.,

Defendants.

PLAINTIFFS' BRIEF REGARDING THE VOTING RIGHTS ACT

Pursuant to Paragraph 171 of this Court's Judgment, Plaintiffs submit this brief "on whether the *Gingles* factors are met in particular counties and county groupings and/or the minimum BVAP needed in particular counties and county groupings for African-Americans to be able to elect candidates of their choice to the General Assembly."

In light of the possibility of further litigation over these issues, Plaintiffs respectfully request that the Referee and/or this Court set forth written findings as to why the Remedial Plans ultimately adopted by the Court comply with the VRA with respect to some or all revised county groupings, and in particular with respect to the following groupings: Columbus-Pender-Robeson, Cumberland, Forsyth-Yadkin, Pitt-Lenoir, Guilford, and Mecklenburg in the House, and Davie-Forsyth, Franklin-Wake, and Mecklenburg in the Senate.[1]

I. Legal Standards

For Section 2 of the VRA to require that a legislative district have particular racial demographics, "three threshold conditions" must be met. *Cooper v. Harris*, 137 S. Ct. 1455, 1472 (2017). "First, a 'minority group' must be 'sufficiently large and geographically compact to constitute a majority' in some reasonably configured legislative district." *Id.* (quoting *Thornburg v. Gingles*, 478 U.S. 30, 50 (1986)). "Second, the minority group must be 'politically cohesive.'" *Id.* (quoting *Gingles*, 478 U.S. at 51). "And third, a district's white majority must vote sufficiently as a bloc to usually defeat the minority's preferred candidate." *Id.* (internal

[1] The analysis presented in this brief and in the accompany expert reports is limited to the specific districts and counties discussed, and in the specific context of this remedial process. As Dr. Handley notes in her report, "[p]articularly given the differences in voting patterns that exist across North Carolina, [the] analysis cannot be extrapolated to other counties and districts not analyzed . . . , including districts that currently have African American representatives." Handley Report at 1.

quotation marks omitted). Each of these conditions is a "prerequisite[]" to Section 2's application to any given district. *Id.* Where racial considerations predominate in the drawing of a district and the VRA is invoked as a justification for doing so, there must be a "strong basis in evidence" for believing that the three *Gingles* factors were present. *Covington v. North Carolina*, 316 F.R.D. 117, 167 (M.D.N.C. 2016), *aff'd*, 137 S. Ct. 2211 (2017) (internal quotation marks omitted).

The first and third *Gingles* factors are of particular significance for present purposes. As relevant here, the first factor requires that the minority group "could" comprise a numerical majority of the voting-age population in a "reasonably compact district[]" in the relevant county grouping. *Bartlett v. Strickland*, 556 U.S. 1, 7-8 (2009) (plurality op.); *Abrams v. Johnson*, 521 U.S. 74, 91 (1997).[2] It is not the case that "whenever a legislature *can* draw a majority-minority district, it *must* do so" under the VRA, as a "majority-minority district would not be required" in "areas with substantial crossover voting." *Cooper*, 137 S. Ct. at 1472 (internal quotation marks and citation omitted). But for purposes of the first *Gingles* factor, it must be numerically possible that the minority group could theoretically constitute a majority of a reasonably compact district in the relevant geographic area. *See id.*

To assess whether the first *Gingles* factor is met in specific county groupings, Plaintiffs' expert Dr. Chen investigated whether it is possible to a district (or in some cases, two or three districts) in the relevant county grouping that is majority-minority while adhering to equal population requirements. Dr. Chen did not apply the county traversal restriction in conducting this analysis. Instead, he tested whether it would be possible to create a majority-minority district within the grouping while adhering to equal population requirements, but without regard

[2] Because no party challenged the existing county groupings in this case, Plaintiffs have conducted their VRA analysis within the confines of the existing county groupings.

to county traversals or splitting municipalities or VTDs. Chen Report at 2. Dr. Chen also confirmed that, with one exception in the Franklin-Nash grouping in the House, his findings are the same regardless of whether he uses Citizen Voting Age Population (CVAP) data from the most recent American Community Survey or total Voting Age Population (VAP) statistics from the 2010 Decennial Census. *Id.* at 3; *see Pope v. Cty. of Albany*, 687 F.3d 565, 574 n.6 (2d Cir. 2012).

With respect to the third *Gingles* factor, the test is not whether there is some level of racially polarized voting, but rather whether there is "'legally significant racially polarized voting,' which occurs when the 'majority group votes sufficiently as a bloc to enable it … usually to defeat the minority's preferred candidate.'" *Covington*, 316 F.R.D. at 170 (quoting *Gingles*, 478 U.S. at 51, 55-56); *see also Gingles*, 478 U.S. at 56 ("[I]n general, 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."). Because the existence and degree of racially polarized voting will "vary" from county-to-county, this factor requires a localized, "district-specific assessment" of whether whites vote sufficiently as a bloc "usually to defeat the minority's preferred candidate." *Covington*, 316 F.R.D.at 170-74 (internal quotation marks omitted). The need for such localized analysis is particularly acute in North Carolina: as demonstrated below and in the accompanying expert report of Dr. Lisa Handley, the existence and extent of white bloc voting varies widely across different county groupings.

There is no bright-line rule for the level of white bloc voting that is necessary for the third *Gingles* fact to be met, but prior cases provide guidance. In particular, two recent North Carolina cases—*Cooper v. Harris*, 137 S. Ct. 1455 (2017), and *Covington v. North Carolina*,

316 F.R.D. 117 (M.D.N.C. 2016), *aff'd*, 137 S. Ct. 2211 (2017)—offer guidance on circumstances where the third *Gingles* factor is not met:

- In *Cooper*, the U.S. Supreme Court held that there was not legally significant racially polarized voting in North Carolina's former Congressional District 1. The Court explained that, in the 20 years prior to the relevant plan's adoption, "the district's BVAP usually hovered between 46% and 48%," and yet "[i]n the closest election during that period, African–Americans' candidate of choice received 59% of the total vote; in other years, the share of the vote garnered by those candidates rose to as much as 70%." 137 S. Ct. at 1470.

- In *Covington*, the district court held that the defendants had not presented "conclusive evidence of the third *Gingles* factor" given that, in most of the elections that the defendants' expert analyzed, "a majority of non-African-American voters preferred the African-American voters' candidate of choice." 316 F.R.D. at 170. The *Covington* case involved state legislative districts in many of the same counties at issue in the remedial process of the instant case, including districts in Cumberland, Forsyth, Guilford, Wake, and Mecklenburg Counties.

In contrast, the following are examples of cases where courts have found that the third *Gingles* factor is met:

- In *Old Person v. Cooney*, 230 F.3d 1113, 1127 (9th Cir. 2000), the Ninth Circuit held that the third *Gingles* factor was satisfied where white candidates defeated Indian candidates "in 86% of the contests in the four districts challenged on appeal."

- In *United States v. Blaine County, Montana*, 363 F.3d 897, 911 (9th Cir. 2004), the Ninth Circuit affirmed the trial court's finding of legally significant racially polarized voting where, "[i]n five out of seven county-wide elections between an American Indian candidate and white candidate, the American Indian candidate lost despite receiving strong American Indian support."

- In *Rodriguez v. Pataki*, 308 F. Supp. 2d 346, 425-26 (S.D.N.Y.), *aff'd*, 543 U.S. 997 (2004), the district court found that the third *Gingles* factor was met where "the Hispanic-preferred candidate received between (an estimated) 27.1% and 39.7% of the white vote in each [endogenous] election; and each Hispanic-preferred candidate lost to the white-preferred candidate."

- In *Flores v. Town of Islip*, 382 F. Supp. 3d 197, 231-32 (E.D.N.Y. 2019), the district court held that there was legally significant polarized voting where white crossover voting ranged from 23.8% to 39% across relevant elections.

As relevant to the third *Gingles* factor, Plaintiffs' expert Dr. Handley analyzed the extent of racially polarized voting in specific county groupings using Ecological Inference (EI) modeling. Specifically, Dr. Handley ran EI analysis on state legislative and statewide elections that had an African American candidate and occurred within one or more of the counties in the relevant grouping.

Dr. Chen's report is attached as Exhibit A to this brief and Dr. Handley's report is attached as Exhibit B.

II. House County Groupings

a. Alamance

In the Alamance county grouping, the first *Gingles* factor is not met. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 12. Dr. Chen finds that the maximum African American CVAP possible for a non-contiguous district in this county while adhering to equal population requirements is j35.83%. *Id.*

While the first *Gingles* factor is not met, for completeness, it does appear that there is racial bloc voting in this grouping. For Alamance County, Dr. Handley finds that over 96% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between 31.2% and 38.2% in these general elections. Handley Report at 14 (Table 3).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Alamance					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 64	18.5%	Lynch	Lost	42.2%
2016	Lt. Governor	18.8%	Coleman	Lost	41.8%
2016	Treasurer	18.8%	Blue III	Lost	43.2%
2012	House District 64	18.5%	McAdoo	Lost	41.0%
2012	President	18.8%	Obama	Lost	43.1%
2012	Lt. Governor	18.8%	Coleman	Lost	43.3%
Primary Elections					
2018	House District 64	18.5%	Lynch	Lost	46.8%
2016	Lt. Governor	18.8%	Coleman	Won	52.3%*[3]
2016	Treasurer	18.8%	Blue III	Won	57.4%
2016	Attorney General	18.8%	Williams	Won	51.1%
2016	Commissioner of Labor	18.8%	Ferguson	Won	50.3%
2012	Commissioner of Labor	18.8%	Foster	Lost	33.5%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 31.7% to 37.6%. Handley Report at 14 (Table 3). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 34.4%. *Id.*

b. Anson-Union

The first *Gingles* factor also is not met in the Anson-Union grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 13. He finds that the maximum African

[3] Asterisks in the charts in this section indicate that the relevant Democratic primary had more than two candidates.

American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 37.63%. *Id.*

While the first *Gingles* factor is not met, for completeness, it does appear that there is racial bloc voting in this grouping. Dr. Handley finds that over 98% of African Americans have supported the same candidates in all general elections studied, and white crossover voting has been between just 23.1% and 32.0% in these general elections. Handley Report at 14 (Table 4).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Anson-Union					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2016	Lt. Governor	16.5%	Coleman	Lost	33.1%
2016	Treasurer	16.5%	Blue III	Lost	34.6%
2012	President	16.5%	Obama	Lost	37.7%
2012	Lt. Governor	16.5%	Coleman	Lost	37.8%
Primary Elections					
2016	Lt. Governor	16.5%	Coleman	Won	40.8%*
2016	Treasurer	16.5%	Blue III	Won	56.5%
2016	Attorney General	16.5%	Williams	Won	58.3%
2016	Commissioner of Labor	16.5%	Ferguson	Won	55.3%
2012	Commissioner of Labor	16.5%	Richardson	Lost	37.2%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 38.1% to 45.7%. Handley Report at 14 (Table 4). Across the general elections she studied, the average

minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 42.2%. *See id.*

c. Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly Grouping

The first *Gingles* factor also is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 16. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 43.85%. *Id.*

While the first *Gingles* factor is not met, for completeness, it does appear that there is racial bloc voting in this grouping. Dr. Handley finds that over 97% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between 28.1% and 38.9% in these general elections. Handley Report at 16 (Table 5).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 82	14.1%	Steele	Lost	47.3%
2016	Lt. Governor	15.5%	Coleman	Lost	33.8%
2016	Treasurer	15.5%	Blue III	Lost	36.1%
2012	House District 83	15.2%	Fleming	Lost	37%
2012	President	15.5%	Obama	Lost	37.8%
2012	Lt. Governor	15.5%	Coleman	Lost	39.1%
Primary Elections					
2016	Lt. Governor	15.5%	Coleman	Won	45.2%*
2016	Treasurer	15.5%	Blue III	Won	53.6%

2016	Attorney General	15.5%	Williams	Won	55.5%
2016	Commissioner of Labor	15.5%	Ferguson	Won	53.6%
2012	Commissioner of Labor	15.5%	Foster	Lost	24%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 29.1% to 47.6%. Handley Report at 16 (Table 5). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 36.6%. *See id.*

d. Cleveland-Gaston Grouping

The first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 17. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 43.63%. *Id.*

While the first *Gingles* factor is not met, for completeness, there is racial bloc voting in this grouping. Dr. Handley finds that over 95% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between just 23.1% and 30.0% in these general elections. Handley Report at 17 (Table 6).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Cleveland-Gaston					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 110	15.3%	McCleary	Lost	32.2%
2018	Senate District 43	14.8%	Price	Lost	34.8%
2016	Lt. Governor	16.2%	Coleman	Lost	33.0%
2016	Treasurer	16.2%	Blue III	Lost	36.0%
2012	House District 110	15.3%	McKoy	Lost	34.1%
2012	President	16.2%	Obama	Lost	37.1%
2012	Lt. Governor	16.2%	Coleman	Lost	39.1%
Primary Elections					
2016	Lt. Governor	16.2%	Coleman	Won	42.7%*
2016	Treasurer	16.2%	Blue III	Won	52.6%
2016	Attorney General	16.2%	Williams	Won	57.5%
2016	Commissioner of Labor	16.2%	Ferguson	Won	53.8%
2012	Commissioner of Labor	16.2%	Foster	Lost	25.8%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 34.6% to 48.3%. Handley Report at 17 (Table 6). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 41.6%. *See id.*

e. Columbus-Pender-Robeson Grouping

1. Native Americans

Robeson County contains a large Native American population. It is possible to create a majority Native American district in Robeson County, as the current version of House District 47

has a Native American VAP close to 50% and the prior 2011 version of the district did have a Native American VAP above 50%.

With respect to the second and third *Gingles* factors, Dr. Handley analyzed elections solely within Robeson County. Regarding the second factor, in the seven general elections that Dr. Handley analyzed in Robeson County, less than 60% of Native Americans supported the same candidate in 5 of 7 elections. Handley Report at 41 (Table 22A). Similar voting patterns exist in the primaries that Dr. Handley evaluated. *Id.* at 42 (Table 22B).

Based on the elections that Dr. Handley analyzed, the third *Gingles* factor is not met with respect to Native Americans in Robeson County. Dr. Handley finds that a majority of non-Native Americans supported the same candidate as a majority of Native Americans in 5 of the 7 general elections she evaluated, and similar voting patterns exist in the primaries. Handley Report at 40-41 (Tables 22A & 22B). More importantly, the candidate of choice of Native Americans won every general election that Dr. Handley analyzed—all 7 of 7—and almost all of the primary elections as well. *Id.* Thus, non-Native Americans have not voted "as a bloc usually to defeat [Native Americans'] preferred candidates." *Gingles*, 478 U.S. at 56.

2. African Americans

Dr. Chen and Dr. Handley also evaluated the African American community across all three counties in this grouping.

With respect to African Americans, Dr. Chen finds that it is not possible to create even a non-contiguous district that would have an African-American CVAP above 50%. Chen Report at 18. Dr. Chen finds that it may be possible to create a non-contiguous majority-African American district using total VAP from the Decennial Census rather than CVAP, but in any

event, he finds that it is not possible to create a contiguous majority-African American district using total VAP. *Id.*

Dr. Handley finds that there is bloc voting in this grouping with respect to African Americans. Dr. Handley finds that over 82% of African Americans supported the same candidate in all general elections she studied. Handley Report at 18 (Table 7). And Dr. Handley calculates that between 26.3% and 46.0% of non-African Americans supported the black-preferred candidate in the general elections she studied. *Id.*

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Columbus-Pender-Robeson					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	Senate District 13	26.4%	Campbell	Lost	37.5%
2018	House District 46	24.7%	Yates-Lockamy	Lost	36.7%
2016	Lt. Governor	24.5%	Coleman	Lost	43.7%
2016	Treasurer	24.5%	Blue III	Lost	47.0%
2012	President	24.5%	Obama	Won	50.3%
2012	Lt. Governor	24.5%	Coleman	Won	57.4%
Primary Election					
2018	Senate District 13	26.4%	Campbell	Won	69.2%
2016	Lt. Governor	24.5%	Coleman	Won	41.6%*
2016	Treasurer	24.5%	Blue III	Won	64.8%
2016	Attorney General	24.5%	Williams	Won	60.1%
2016	Commissioner of Labor	24.5%	Ferguson	Lost	38.5%
2014	Senate District 13	26.4%	Williams	Lost	27.3%*
2012	Commissioner of Labor	24.5%	Richardson	Lost	27.9%

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 5.5% to 49.7%. Handley Report at 18 (Table 7). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice is 30.1%. *See id.*

f. Cumberland

Dr. Chen finds that it is not possible three non-contiguous districts that are majority-African American in Cumberland County. Chen Report at 19.

Regarding the second *Gingles* factor, Dr. Handley finds that over 83% of African Americans have supported the same candidate in all general elections studied in this county. Handley Report at 19 (Table 8A).

There is far less white bloc voting under the third *Gingles* factor, however. In 2 of the 7 general elections and 4 of the 7 Democratic primaries that Dr. Handley analyzed, a majority or plurality of white voters supported the African American-preferred candidate (in the 2018 general elections in House Districts 42 and 43, the 2018 Democratic primary in House District 43, the 2016 Lieutenant Governor primary, and the 2012 Lieutenant Governor and Commission of Labor primaries). Handley Report at 19-20 (Tables 8A & 8B). In the remaining general elections studied, white crossover voting ranged from 29.4% to 42.4%, with similar figures for the remaining Democratic primaries.

Election results since 2012 indicate that whites have not voted "as a bloc usually to defeat the minority's preferred candidates" in Cumberland County. *Gingles*, 478 U.S. at 56. As depicted in the table below, of the state legislative and statewide general elections in Cumberland County since 2012 that had an African American candidate, the African American candidate won

9 of the 10 elections. Like in *Cooper*, of those races that African American candidates won, the "closest election" saw an African American candidate win 57% of the vote, and African American candidates won much higher margins in most of the other elections. *Id.* at 1470. The BVAP in these elections ranged from 37.1% to 52.6%. *See id.* Similar results have occurred in Democratic primaries this decade.

Cumberland					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African American Candidate	Result for African American Candidate in District or Counties	Share of Two-Party Vote for African American Candidate
General Elections					
2018	House District 42	42.2%	Lucas, Jr.	Won	76.1%
2018	House District 43	50.0%	Floyd	Won	74.1%
2016	Senate District 19	22.5%	Morris	Lost	43.6%
2016	Lt. Governor	37.1%	Coleman	Won	57.3%
2016	Treasurer	37.1%	Blue III	Won	57.6%
2012	House District 42	52.6%	Lucas, Jr.	Won	77.5%
2012	House District 43	51.5%	Floyd	Won	69.6%
2012	President	37.1%	Obama	Won	59.9%
2012	Lt. Governor	37.1%	Coleman	Won	61.6%
Primary Elections					
2018	House District 43	50.0%	Floyd	Won	79.2%
2016	Lt. Governor	37.1%	Coleman	Won	59.1%*
2016	Treasurer	37.1%	Blue III	Won	52.3%
2016	Attorney General	37.1%	Williams	Won	66.7%
2016	Commissioner of Labor	37.1%	Ferguson	Lost	46.0%
2012	Commissioner of Labor	37.1%	Richardson	Won	42.8%*

Across the general elections that Dr. Handley studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in Cumberland County is 18.3%.[4] *See* Handley Report at 19-20 (Tables 8A & 8B).

g. Duplin-Onslow Grouping

The first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 20. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 37.61%. *Id.*

While the first *Gingles* factor is not met, for completeness, there is racial bloc voting in this grouping. Dr. Handley finds that over 97% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between just 15.1% and 28.0% in these general elections. Handley Report at 21 (Table 9).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

[4] For purposes of the averages calculated in this brief, elections in which a majority of white voters supported the African-American-preferred candidate are considered to require 0% BVAP for the African-American-preferred candidate to have won.

Duplin-Onslow					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 4	22.6%	Love	Lost	35.7%
2016	Lt. Governor	18.5%	Coleman	Lost	34.7%
2016	Treasurer	18.5%	Blue III	Lost	35.7%
2012	President	18.5%	Obama	Lost	38.7
2012	Lt. Governor	18.5%	Coleman	Lost	41.9%
Primary Elections					
2018	House District 4	22.6	Love	Won	57.5%
2016	Lt. Governor	18.5%	Coleman	Won	46.7%*
2016	Treasurer	18.5%	Blue III	Won	54.9%
2016	Attorney General	18.5%	Williams	Won	64.6%
2016	Commissioner of Labor	18.5%	Ferguson	Won	51%
2012	Commissioner of Labor	18.5%	Richardson	Lost	29.1%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 31.2% to 51.7%. Handley Report at 21 (Table 9). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 42.3%. *See id.*

h. Forsyth-Yadkin

Dr. Chen finds that it is not possible to create two contiguous districts in this grouping that are majority-African American. Chen Report at 21. Regarding the second *Gingles* factor, Dr. Handley finds that over 98% of African Americans have supported the same candidate in all general elections studied in these counties. Handley Report at 22 (Table 10).

However, with respect to the third *Gingles* factor, there is insufficient evidence of legally significant white bloc voting in this county grouping. In 4 of 8 of general elections and 4 of 6 Democratic primaries that Dr. Handley analyzed, a majority of whites supported the African-American-preferred candidate (in the 2018 general elections in House District 71, House District 72, and Senate District 32, in the 2014 general election in House District 71, in the 2016 Democratic primaries for Lieutenant Governor, Commissioner of Labor, and Treasurer, and in the 2012 Democratic primary for Lieutenant Governor). Handley Report at 22 (Table 10); *see Covington*, 316 F.R.D. at 170.

Election results since 2012 further demonstrate that whites have not voted "as a bloc usually to defeat the minority's preferred candidates." *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won 9 of 11 general elections and 7 of 9 Democratic primaries across these counties since 2012. In the most probative elections for present purposes—endogenous state House and state Senate races—African American candidates have won over 70% of the two-party vote in all seven general elections, even though the BVAPs of the districts involved were between just 36.6% and 47.5%. *See Cooper*, 137 S. Ct. at 1470.

Forsyth-Yadkin					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African American Candidate
General Elections					
2018	House District 71	36.6%	Terry	Won	72.7%
2018	House District 72	47.5%	Montgomery	Won	79.1%
2018	Senate District 32	39.2%	Lowe	Won	72.9%
2016	Lt. Governor	23.6%	Coleman	Lost	49.1%

2016	Treasurer	23.6%	Blue III	Lost	47.7%
2014	House District 71	45.5%	Terry	Won	76.6%
2012	House District 71	45.5%	Terry	Won	77.9%
2012	House District 72	45.0%	Hanes, Jr.	Won	74.4%
2012	Senate District 32	42.5%	Parmon	Won	73.0%
2012	President	23.6%	Obama	Won	51.0%
2012	Lt. Governor	23.6%	Coleman	Won	50.9%
Primary Elections					
2016	Lt. Governor	23.6%	Coleman	Won	55.6%*
2016	Treasurer	23.6%	Blue III	Won	59.1%
2016	Attorney General	23.6%	Williams	Lost	45.1%
2016	Commissioner of Labor	23.6%	Ferguson	Won	60.5%
2012	House District 71	45.5%	Terry	Won	51.3%
2012	House District 72	45.0%	Hanes, Jr.	Won	43.6%*
2012	House District 74	10.7%	Gladman	Lost	44.1%
2012	Senate District 32	42.5%	Parmon	Won	60.0%*
2012	Commissioner of Labor	23.6%	Foster	Won	38.9%*

Across the general elections that Dr. Handley studied across these counties, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 16.9%. Handley report at 22 (Table 10). Dr. Handley also performed her analysis for elections solely within Forsyth County and found less polarized voting when focusing just on this county. *Id.* at 38 (Table 20). Accordingly, the average minimum BVAPs necessary for the African American-preferred candidate to have won the general elections in Forsyth County is lower than that across the full county grouping. *See id.*

i. Nash-Franklin

At trial, Dr. Chen presented an analysis showing that, while it is possible to create a majority- African American district in this grouping using voting-age population data from the Decennial Census, any such district would have a Polsby-Popper scores below 0.05. PX123 at 145-47 (Chen Rebuttal Report). But Dr. Chen concludes in his newest report that it is possible

create a majority-African American district with a Polsby-Popper score above 0.05 if using CVAP statistics rather than all VAP. Chen Report at 22.

With respect to the second and third *Gingles* factors, Dr. Handley finds that over 84% of African Americans have supported the same candidate in all general elections she studied, and white crossover voting has been between 20.8% and 44.8% in these general elections. Handley Report at 23 (Table 11).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Nash-Franklin					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 25	40.73%	Gailliard	Won	53.3%
2016	Lt. Governor	33.0%	Coleman	Lost	47.3%
2016	Treasurer	33.0%	Blue III	Lost	48.7%
2016	House District 7	50.7%	Richardson	Won	67.8%
2016	House District 25	16.1%	Gailliard	Lost	31.9%
2012	President	33.0%	Obama	Lost	49.5%
2012	Lt. Governor	33.0%	Coleman	Won	51.2%
Primary Elections					
2016	Lt. Governor	33.0%	Coleman	Won	66.5%*
2016	Treasurer	33.0%	Blue III	Won	65.1%
2016	Attorney General	33.0%	Williams	Lost	39.5%
2016	Commissioner of Labor	33.0%	Ferguson	Lost	25.2%
2012	House District 7	50.7%	Bryant	Won	83.5%
2012	Commissioner of Labor	33.0%	Foster	Won	36.2%*

Dr. Handley finds that the BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 11.9% to 49.6%.

Handley Report at 23 (Handley Report). Across the general elections she studied, the average BVAP necessary for African Americans to elect candidates of their choice in this grouping is 35.2%.

j. Guilford

The first *Gingles* factor is clearly met, at least as to the creation of a single district, given the racial demographics of Guilford County. Regarding the second *Gingles* factor, Dr. Handley finds that over 98% of African Americans have supported the same candidate in all general elections studied in this county. Handley Report at 24 (Table 12A).

However, with respect to the third *Gingles* factor, there is insufficient evidence of legally significant white bloc voting in Guilford County. In 4 of the 9 general elections that Dr. Handley analyzed, a majority of white voters supported the African-American-preferred candidate (in the 2018 general elections in House District 58, House District 60, and Senate District 28, and in the 2016 general election in Senate District 28). *Id.*; *see Covington*, 316 F.R.D. at 170. And in the remaining general elections that Dr. Handley analyzed, white crossover voting exceeded 40% in all but one of the elections. Handley Report at 24 (Table 12A). Similar voting patterns occurred in Democratic primaries. *Id.* at 25 (Table 12B).

Election results since 2012 further demonstrate that whites have not voted "as a bloc usually to defeat the minority's preferred candidates" in Guilford County. *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won all 12 relevant Democratic primaries since 2012 and 9 of 11 general elections. In the seven state House and state Senate general elections that African American candidates have won, the African American candidate won over 68% of the vote, including in three districts where the BVAP was between 40%-43%. *See Cooper*, 137 S. Ct. at 1470.

Guilford					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 58	42.7%	Quick	Won	76.8%
2018	House District 60	40.1%	Brockman	Won	69.0%
2018	Senate District 28	43.6%	Robinson	Won	75.3%
2016	Senate District 28	56.5%	Robinson	Won	83.9%
2016	Lt. Governor	32.1%	Coleman	Won	58.2%
2016	Treasurer	32.1%	Blue III	Won	57.6%
2014	House District 61	15.3%	Weatherford	Lost	32.8%
2012	House District 58	51.1%	Adams	Won	79.9%
2012	House District 61	15.3%	Weatherford	Lost	36.2%
2012	President	32.1%	Obama	Won	58.3%
2012	Lt. Governor	32.1%	Coleman	Won	58.0%
Primary Elections					
2018	House District 58	42.7%	Quick	Won	80.2%
2016	House District 58	51.1%	Quick	Won	71.5%
2016	Lt. Governor	32.1%	Coleman	Won	57.9%*
2016	Treasurer	32.1%	Blue III	Won	54.3%
2016	Attorney General	32.1%	Williams	Won	54.6%
2016	Commissioner of Labor	32.1%	Ferguson	Won	61.3%
2014	House District 58	51.1%	Johnson	Won	42.6%*
2014	House District 60	51.4%	Brockman	Won	54.2%*
2014	Senate District 28	56.5%	Robinson	Won	59.4%
2012	House District 60	51.4%	Brandon	Won	66.2%
2012	Senate District 28	56.5%	Robinson	Won	72.0%
2012	Commissioner of Labor	32.1%	Foster	Won	39.2%*

Across the general elections that Dr. Handley studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in Guilford County is 12.8%. *See* Handley Report at 24 (Table 12A).

k. Pitt-Lenoir

With respect to the first *Gingles* factor, Dr. Chen finds that it is possible to create a majority-African American district with a Reock score exceeding 0.15 and a Polsby-Popper score exceeding 0.05. Chen Report at 23.

Regarding the second *Gingles* factor, Dr. Handley finds that over 86% of African Americans supported the same candidate in all general elections she analyzed in this grouping. Dr. Handley also finds evidence of white bloc voting in this grouping. Handley Report at 26 (Table 13). Dr. Handley calculates white crossover voting of between 24.9% and 46.8% in the general elections she analyzed. *Id.*

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Pitt-Lenoir					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 8	44.9%	Smith	Won	39.7%
2018	House District 9	20.5%	Rixon	Lost	49.9%
2018	House District 12	37.4%	Graham	Lost	40.0%
2016	Lt. Governor	34.2%	Coleman	Won	51.4%
2016	Treasurer	34.2%	Blue III	Won	52.6%
2012	President	34.2%	Obama	Won	52.6%
2012	Lt. Governor	34.2%	Coleman	Won	54.7%
Primary Elections					
2018	House District 8	44.9%	Smith	Won	50.0%
2016	Lt. Governor	34.2%	Coleman	Won	53.6%
2016	Treasurer	34.2%	Blue III	Won	54.6%
2016	Attorney General	34.2%	Williams	Won	61.1%
2016	Commissioner of Labor	34.2%	Ferguson	Lost	46.5%
2012	Commissioner of	34.2%	Richardson	Lost	30.2%*

	Labor				

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 12.2% to 57.3%. Handley Report at 26 (Table 13). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 30.4%. *See id.*

l. Mecklenburg

The first *Gingles* factor is clearly met, at least as to the creation of a single district, given the racial demographics of Mecklenburg County. Regarding the second *Gingles* factor, Dr. Handley finds that over 89% of African Americans have supported the same candidate in all general elections studied in this county. Handley Report at 27 (Table 14A).

However, there is insufficient evidence of legally significant white bloc voting in Mecklenburg County for purposes of the third *Gingles* factor. In 14 of 19 of the general elections that Dr. Handley analyzed, a majority of white voters supported the African-American-preferred candidate. Handley Report at 27 (Table 14A); *see Covington*, 316 F.R.D. at 170.

Election results since 2012 further demonstrate that whites have not voted "as a bloc usually to defeat the minority's preferred candidates." *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won 15 of 16 relevant Democratic primaries since 2012 and 18 of 22 general elections in that time period. In 2018, African American candidates won state House races in Mecklenburg County in districts with BVAPs as low as 6.2% and 18.2%, and other African American candidates won landslide victories in districts with BVAPs between 30% and 40%. *See Cooper*, 137 S. Ct. at 1470.

Mecklenburg					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 92	30.2%	Beasley	Won	70.0%
2018	House District 99	49.5%	Majeed	Won	82.4%
2018	House District 101	50.8%	Logan	Won	78.7%
2018	House District 104	6.2%	Lofton	Won	51.8%
2018	House District 106	38.0%	Cunningham	Won	80.6%
2018	Senate District 40	38.9%	Waddell	Won	75.6%
2016	House District 92	18.2%	Beasley	Won	54.4%
2016	House District 101	51.3%	Earle	Won	76.0%
2016	House District 105	9.5%	Green-Johnson	Lost	44.7%
2016	Senate District 38	52.5%	Ford	Won	79.1%
2016	Senate District 40	51.8%	Waddell	Won	82.5%
2016	Lt. Governor	30.2%	Coleman	Won	59.6%
2016	Treasurer	30.2%	Blue III	Won	58.4%
2014	House District 92	18.2%	Bradford	Lost	47.5%
2014	House District 106	51.1%	Cunningham	Won	86.6%
2014	Senate District 38	52.5%	Ford	Won	79.7%
2014	Senate District 41	13.2%	McRae	Lost	39.5%
2012	House District 92	18.2%	Bradford	Lost	48.6%
2012	Senate District 38	52.5%	Ford	Won	80.2%
2012	Senate District 40	51.8%	Graham	Won	84.1%
2012	President	30.2%	Obama	Won	61.3%
2012	Lt. Governor	30.2%	Coleman	Won	59.8%
Primary Elections					
2018	House District 99	49.5%	Majeed	Won	57.3%*
2018	House District 101	50.8%	Logan	Won	50.0%*
2018	House District 106	38.0%	Cunningham	Won	88.9%
2018	Senate District 38	48.5%	Ford	Lost[5]	40.7%
2016	House District 101	51.3%	Earle	Won	78.6%
2016	House District 107	52.5%	Alexander, Jr.	Won	90.1%
2016	Senate District 38	52.5%	Ford	Won	52.1%
2016	Senate District 40	51.8%	Waddell	Won	64.7%

[5] In the 2016 Democratic primary in Senate District 38, Dr. Handley finds that the candidate of choice of African Americans was not the African American candidate, but rather another candidate who won the election.

2016	Lt. Governor	30.2%	Coleman	Won	55.2%*
2016	Treasurer	30.2%	Blue III	Won	52.7%
2016	Attorney General	30.2%	Williams	Won	55.7%
2016	Commissioner of Labor	30.2%	Ferguson	Won	57.0%
2014	Senate District 40	51.8%	Waddell	Won	41.9%*
2012	House District 101	51.3%	Earle	Won	84.9*
2012	Senate District 38	52.5%	Ford	Won	52.2%
2012	Commissioner of Labor	30.2%	Richardson	Won	40.7%*

m. Buncombe

The first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 15. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 16.81%. *Id.* Dr. Handley did not analyze this grouping given the relatively low number of African Americans who live in this county.

n. Brunswick-New Hanover

The first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 14. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 35.70%. *Id.* Dr. Handley did not analyze this grouping given the relatively low number of African Americans who live in these counties.

III. Senate County Groupings

a. Alamance-Guilford-Randolph

After removing Senate Districts 24 and 28 (which cannot be altered under the Court's order), the remainder of this county grouping does not contain enough African Americans to constitute a majority in one of the two remedial districts to be created. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 7. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in the remaining territory in this grouping while adhering to equal population requirements is 34.06%. *Id.*

b. Davie-Forsyth

At trial, Dr. Chen established in unrebutted testimony that it is not "mathematically possible" to create a majority-minority district in the Davie-Forsyth county grouping. Tr. 518:4-15. Dr. Chen found that, even if creating a non-contiguous district, the maximum BVAP possible for a district in this grouping while adhering to equal population requirements is just 44.81%. PX123 at 148-49 (Chen Rebuttal Report). Dr. Chen has confirmed in his most recent report that it would not be possible to create a majority African American district in this grouping if using CVAP rather than total VAP. Chen Report at 8. Dr. Chen finds that the maximum percent CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 45.55%. *Id.*

Dr. Handley's analysis indicates that the third *Gingles* factor also is not met in this grouping. Just as was the case with the Forsyth-Yadkin grouping in the House, there is insufficient evidence of legally significant white bloc voting in the Davie-Forsyth grouping. In 4 of 8 of the general elections and 4 of 6 primaries that Dr. Handley analyzed, a majority of whites

supported the African-American-preferred candidate (in the 2018 general elections in House District 71, House District 72, and Senate District 32, in the 2014 general election in House District 71, and in the 2016 Democratic primaries for Commissioner of Labor and Treasurer). Handley Report at 33 (Table 17); *see Covington*, 316 F.R.D. at 170.

Election results since 2012 confirm that whites have not voted "as a bloc usually to defeat the minority's preferred candidates." *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won 9 of 11 general elections and 7 of 9 Democratic primaries across these counties since 2012. In the most probative elections for present purposes—endogenous state House and state Senate races—African American candidates have won over 70% of the two-party vote in all seven general elections, even though the BVAPs of the districts involved were between just 36.6% and 47.5%. *See Cooper*, 137 S. Ct. at 1470.

Davie-Forsyth					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 71	36.6%	Terry	Won	72.7%
2018	House District 72	47.5%	Montgomery	Won	79.1%
2018	Senate District 32	39.2%	Lowe	Won	72.9%
2016	Lt. Governor	23.8%	Coleman	Lost	49.2%
2016	Treasurer	23.8%	Blue III	Lost	47.6%
2014	House District 71	45.5%	Terry	Won	76.6%
2012	House District 71	45.5%	Terry	Won	77.9%
2012	House District 72	45.0%	Hanes, Jr.	Won	74.4%
2012	Senate District 32	42.5%	Parmon	Won	73.0%
2012	President	23.8%	Obama	Won	50.9%
2012	Lt. Governor	23.8%	Coleman	Won	50.7%
Primary Elections					
2016	Lt. Governor	23.8%	Coleman	Won	55.6%*
2016	Treasurer	23.8%	Blue III	Won	59.2%
2016	Attorney General	23.8%	Williams	Lost	45.0%

2016	Commissioner of Labor	23.8%	Ferguson	Won	60.2%
2012	House District 71	45.5%	Terry	Won	51.3%
2012	House District 72	45.0%	Hanes, Jr.	Won	43.6%*
2012	House District 74	10.7%	Gladman	Lost	44.1%
2012	Senate District 32	42.5%	Parmon	Won	60.0%*
2012	Commissioner of Labor	23.8%	Foster	Won	39.3%*

Across the general elections that Dr. Handley studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice is 15.5%. *See* Handley Report at 33 (Table 17). Dr. Handley also performed her analysis for elections solely within Forsyth County and found less polarized voting when focusing just on this county. *Id.* at 38 (Table 20). Accordingly, the average minimum BVAPs necessary for the African American-preferred candidate to have won the general elections in Forsyth County is lower than that across the full county grouping. *See id.*

c. Duplin-Harnett-Johnston-Lee-Nash-Sampson

With respect to the *Gingles* factor, Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 11. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 47.48%. *Id.*

While the first *Gingles* factor is not met, for completeness, it does appear that there is racial bloc voting in this grouping. Dr. Handley finds that over 84% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between 15.1% and 44.8% in these general elections. Handley Report at 34 (Table 18A).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Johnston-Sampson-Nash-Harnett-Duplin					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 4	22.6%	Love	Lost	35.7%
2018	House District 25	40.73%	Gailliard	Won	53.3%
2018	Senate District 10	24.1%	Moore	Lost	37.5%
2016	Lt. Governor	23.6%	Coleman	Lost	38.9%
2016	Treasurer	23.6%	Blue III	Lost	40.6%
2012	President	23.6%	Obama	Lost	42.0%
2012	Lt. Governor	23.6%	Coleman	Lost	44.4%
Primary Elections					
2018	House District 4	22.6	Love	Won	57.5%
2016	Lt. Governor	23.6%	Coleman	Won	58.6%
2016	Treasurer	23.6%	Blue III	Won	59.2%
2016	Attorney General	23.6%	Williams	Won	50.5%
2016	Commissioner of Labor	23.6%	Ferguson	Lost	32.6%
2012	Commissioner of Labor	23.6%	Richardson	Lost	30.8%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 11.9% to 45.0%. Handley Report at 34 (Table 18A). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice is 36.1%. *See id.*

d. Franklin-Wake

The first *Gingles* factor is clearly met, as least to the creation of a single district, given the racial demographics of these counties. Regarding the second *Gingles* factor, Dr. Handley

finds that over 99% of African Americans have supported the same candidate in all general elections studied in this county grouping. Handley Report at 36 (Table 19A).

However, with respect to the third *Gingles* factor, there is insufficient evidence of legally significant white bloc voting in this grouping. In 12 of 20 primary and general elections that Dr. Handley analyzed, a majority of whites voted for the African American-preferred candidate. *Id.* at 36-37 (Tables 19A & 19B); *see Covington*, 316 F.R.D. at 170. And with respect to state legislative elections in particular, a majority of whites supported the African American-preferred candidate in 6 of 8 general elections and 2 of 2 Democratic primaries. *Id.* In the few primary and general elections that Dr. Handley analyzed in this grouping where a majority of whites did not support the African American-preferred candidate, white crossover voting exceeded 40% in all but two of these elections. *Id.*

Dr. Handley also performed her analysis for elections solely within Wake County and found less polarized voting when focusing just on this county: she found that a majority of white voters supported the African American-preferred candidate in 9 of the 13 general elections she analyzed in Wake County. Handley Report at 29 (Table 15A).

Election results since 2012 confirm that whites have not voted "as a bloc usually to defeat the minority's preferred candidates" in this grouping. *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won all 12 relevant general elections and 7 of 10 primaries since 2012. In 2018, an African American candidate won a state House race in Wake County in a district with a BVAP of just 14.3%, and other African American candidates won landslide victories in districts with BVAPs between 38% and 49%. *See id*. at 1470.

Franklin-Wake					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 33	44.2%	Gill	Won	78.7%
2018	House District 37	14.3%	Batch	Won	51.1%
2018	House District 38	48.3%	Holley	Won	84.1%
2018	Senate District 14	38.9%	Blue Jr.	Won	71.4%
2016	House District 38	51.4%	Holley	Won	84.8%
2016	Lt. Governor	21.1%	Coleman	Won	55.7%
2016	Treasurer	21.1%	Blue III	Won	55.4%
2014	House District 33	51.4%	Gill	Won	87.3%
2014	House District 38	51.4%	Holley	Won	79.9%
2012	House District 38	51.4%	Holley	Won	87.7%
2012	President	21.1%	Obama	Won	55.4%
2012	Lt. Governor	21.1%	Coleman	Won	54.9%
Primary Elections					
2018	House District 33	44.2%	Gill	Won	60.2%
2016	House District 33	51.4%	Gill	Won	64.1%
2016	Lt. Governor	21.1%	Coleman	Won	60.7%*
2016	Treasurer	21.1%	Blue III	Won	63.4%
2016	Attorney General	21.1%	Williams	Lost	35.4%
2016	Commissioner of Labor	21.1%	Ferguson	Lost	27.8%
2012	House District 33	51.4%	Gill	Won	78.7%
2012	House District 38	51.4%	Holley	Won	60.8%*
2012	House District 39	26.5%	Mial	Lost	29.5%
2012	Commissioner of Labor	21.1%	Foster	Won	37.7%*

e. Mecklenburg

The analysis for the Mecklenburg Senate county grouping is identical to that for the Mecklenburg grouping in the House. Thus, there is insufficient evidence of legally significant white bloc voting in this Senate grouping under the third *Gingles* factor.

f. New Hanover-Bladen-Pender-Brunswick

The first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 9. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 28.11%. *Id.* Dr. Handley did not analyze this grouping given there relatively low number of African Americans who live in these counties.

g. Buncombe-Henderson-Transylvania

The first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 10. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 10.47%. *Id.* Dr. Handley did not analyze this grouping given the relatively low number of African Americans who live in these counties.

Respectfully submitted this the 17th day of September, 2019

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This the 17th day of September, 2019.

/s/ Edwin M. Speas, Jr.
Edwin M. Speas, Jr.

EXHIBIT A

EXPERT REPORT OF JOWEI CHEN, Ph.D.

September 17, 2019

Questions Analyzed: Plaintiffs' counsel asked me to analyze the following questions in this report:

1) Within each of the 2017 Senate Plan county groupings listed below, is it possible to create a single Senate district satisfying five characteristics: 1) At least 50% African-American Citizen Voting Age Population ("CVAP"); 2) Within the 5% population deviation requirement described in the 2017 Adopted Criteria; 3) Geographically contiguous; 4) A Reock compactness score of at least 0.15; and 5) A Polsby-Popper compactness score of at least 0.05?

Senate County Groupings:
1) Alamance-Guilford-Randolph (while freezing SD-24 and SD-28);
2) Bladen-Brunswick-New Hanover-Pender;
3) Buncombe-Henderson-Transylvania;
4) Duplin-Harnett-Johnston-Lee-Nash-Sampson;
5) Davie-Forsyth.

2) Within each of the 2017 House Plan county groupings listed below, is it possible to create a single House district satisfying the five aforementioned characteristics?

House County Groupings:
1) Alamance;
2) Anson-Union;
3) Brunswick-New Hanover;
4) Buncombe;
5) Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly (while freezing HD-66);
6) Cleveland-Gaston;
7) Columbus-Pender-Robeson;
8) Duplin-Onslow;
9) Franklin-Nash; and
10) Lenoir-Pitt.

3) Within the Cumberland county grouping in the 2017 House Plan, is it possible to create three House districts that each satisfy the five aforementioned characteristics?

4) Within the Forsyth-Yadkin county grouping in the 2017 House Plan, is it possible to create two House districts that each satisfy the five aforementioned characteristics?

Summary of Findings: For the Senate Plan, I found that within each of the five county groupings I analyzed, it was not possible to create a single majority-African-American House district that satisfies the five characteristics listed above. Table 1 summarizes my findings regarding each of the Senate county groupings I analyzed.

For the House Plan, I found that within the Franklin-Nash and the Lenoir-Pitt county groupings, it is possible to create a single majority-African-American House district that satisfies the five characteristics listed above. Within the eight other House county groupings that I analyzed, I found that it is not possible to produce the number of majority-African-American House districts in question (i.e., three in Cumberland, two in Forsyth-Yadkin, and one in all other county groupings). Table 2 summarizes my findings regarding each of the House county groupings I analyzed.

For most of these House and Senate county groupings, I was able to arrive at my conclusions by analyzing a simple question: Within the county grouping, is it mathematically possible to form one or more 50%+ African-American CVAP districts by simply combining together the most heavily African-American census blocks, while ignoring districts' geographic contiguity, Reock scores, and Polsby-Popper scores? If African-Americans are not sufficiently numerous within a county grouping to form even a geographically non-contiguous district, then it is obviously impossible to form a majority-African-American district satisfying all five of the characteristics listed above.

For the remaining county groupings in which the African-American population is sufficiently numerous to potentially form one or more majority-African-American districts, I further analyzed whether such districts could be formed while adhering to the five characteristics listed above, including geographic contiguity, a Reock score of at least 0.15, and a Polsby-Popper score of at least 0.05. To analyze this question, I conducted a large number of computer simulations in which district boundaries were drawn within these county groupings in a race-conscious manner. Specifically, the algorithm attempted to intentionally create a 50% African-American CVAP district while otherwise prioritizing geographic compactness and not violating the geographic contiguity and 5% population deviation requirements. Using this simulation algorithm, I determined that it is possible to create a majority -African-American district satisfying the five aforementioned criteria in the Lenoir-Pitt and the Franklin-Nash House county groupings, but not in the other county groupings I analyzed using this method. In programming

this particular race-conscious computer simulation algorithm, I ignored any consideration of county traversals or municipal, precinct, or VTD boundaries.

For all of the results I present below, I use Citizen Voting Age Population (CVAP) data from the most recent American Community Survey. However, with one exception, I have confirmed that my findings do not change if using total Voting Age Population data from the 2010 Decennial Census. That is, I have confirmed that for any grouping where I report that it is not possible to create a majority-African-American district, that is the case regardless of whether one uses CVAP or total VAP, and the same is true for any grouping where I report that it is possible to create a majority-African-American district. The one exception, as documented below, is the Franklin-Nash grouping in the House, where I find that it is possible to create a majority-African American district that is above the relevant compactness thresholds when using CVAP but not when using total VAP.

For the purpose of determining whether districts comply with the equal population requirement, I rely upon 2010 Decennial Census population counts throughout this report. Specifically, the 5% population deviation requirement implies that all House districts must have a 2010 Census population between 75,490 and 83,435, while all Senate districts must have a 2010 Census population between 181,174 and 200,245.

Table 1: County Groupings from the 2017 Senate Plan

2017 Senate County Grouping:	Frozen Districts:	Finding:
Alamance-Guilford-Randolph	SD-24 and SD-28 are frozen	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Bladen-Brunswick-New Hanover-Pender	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Buncombe-Henderson-Transylvania	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Davie-Forsyth	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Duplin-Harnett-Johnston-Lee-Nash-Sampson	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.

Note: The five required district characteristics are: 1) At least 50% African-American Citizen Voting Age Population ("CVAP"); 2) within the 5% population deviation requirement described in the 2017 Adopted Criteria; 3) geographically contiguous; 4) aReock compactness score of at least 0.15; and 5) a Polsby-Popper compactness score of at least 0.05.

Table 2: County Groupings from the 2017 House Plan

2017 House County Grouping:	Frozen Districts:	Finding:
Alamance	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Anson-Union	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Brunswick-New Hanover	none	It is not possible to create even one c non-contiguous majority-African-American district while adhering to the equal population requirement.
Buncombe	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly	HD-66 is frozen	After freezing HD-66, it is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Cleveland-Gaston	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Columbus-Pender-Robeson	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Cumberland	none	It is not possible to create even three non-contiguous majority-African-American districts while adhering to the equal population requirement.
Duplin-Onslow	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Forsyth-Yadkin	none	It is not possible to create two geographically contiguous House districts with over a 50% African-American CVAP, while adhering to the equal population requirement.
Franklin-Nash	none	It is possible to create one majority-African-American House district satisfying the five characteristics listed below.
Lenoir-Pitt	none	It is possible to create one majority-African-American House district satisfying the five characteristics listed below.

Note: The five required district characteristics are: 1) At least 50% African-American Citizen Voting Age Population ("CVAP"); 2) within the 5% population deviation requirement described in the 2017 Adopted Criteria; 3) geographically contiguous; 4) a Reock compactness score of at least 0.15; and 5) a Polsby-Popper compactness score of at least 0.05.

Analysis of Senate Plan County Groupings:

The Alamance-Guilford-Randolph Senate Plan County Grouping: In the 2017 Senate Plan, the Alamance-Guilford-Randolph county grouping contains four Senate districts. However, plaintiffs' counsel asked me to freeze two districts, SD-24 and SD-28, from the 2017 Senate Plan and to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in the remaining non-frozen areas within this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the non-frozen portions of the Alamance-Guilford-Randolph county grouping to form a majority-African-American Senate district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the non-frozen portions of the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that the non-frozen portions of this county grouping have a total population of 386,069. Each of the two Senate districts must therefore contain a population no lower than 185,824 and no higher than 200,245, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the non-frozen portions of the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 185,824 minimum Senate district population for the non-frozen portions of the county grouping. This process resulted in a population-compliant Senate district whose African-American CVAP is only 34.06%. Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American Senate district in the non-frozen portions of the Alamance-Guilford-Randolph county grouping.

The Davie-Forsyth Senate Plan County Grouping: In the 2017 Senate Plan, the Davie-Forsyth county grouping contains two Senate districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Davie-Forsyth county grouping to form a majority-African-American Senate district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created in the county grouping using census block boundaries while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 391,910. Each of the two Senate districts must therefore contain a population no lower than 191,665 and no higher than 200,245, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 191,665 minimum Senate district population for the county grouping. This process resulted in a population-compliant Senate district whose African-American CVAP is only 45.55%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American Senate district in the Davie-Forsyth county grouping.

The Bladen-Brunswick-New Hanover-Pender Senate Plan County Grouping: In the 2017 Senate Plan, the Bladen-Brunswick-New Hanover-Pender county grouping contains two Senate districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Bladen-Brunswick-New Hanover-Pender county grouping to form a majority-African-American Senate district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created in the county grouping using census block boundaries while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 397,505. Each of the two Senate districts must therefore contain a population no lower than 197,260 and no higher than 200,245, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district’s population had just surpassed the 197,260 minimum Senate district population for the county grouping. This process resulted in a population-compliant Senate district whose African-American CVAP is only 28.11%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American Senate district in the Bladen-Brunswick-New Hanover-Pender county grouping.

The Buncombe-Henderson-Transylvania Senate Plan County Grouping: In the 2017 Senate Plan, the Buncombe-Henderson-Transylvania county grouping contains two Senate districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Buncombe-Henderson-Transylvania county grouping to form a majority-African-American Senate district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 378,148. Each of the two Senate districts must therefore contain a population no lower than 181,174 and no higher than 196,974, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district’s population had just surpassed the 181,174 minimum Senate district population for the county grouping. This process resulted in a population-compliant Senate district whose African-American CVAP is only 10.47%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American Senate district in the Buncombe-Henderson-Transylvania county grouping.

The Duplin-Harnett-Johnston-Lee-Nash-Sampson Senate Plan County Grouping: In the 2017 Senate Plan, the Duplin-Harnett-Johnston-Lee-Nash-Sampson county grouping contains three Senate districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Duplin-Harnett-Johnston-Lee-Nash-Sampson county grouping to form a majority-African-American Senate district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 559,198. Each of the three Senate districts must therefore contain a population no lower than 181,174 and no higher than 196,850, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district’s population had just surpassed the 181,174 minimum Senate district population for the county grouping. This process resulted in a population-compliant Senate district whose African-American CVAP is only 47.48%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American Senate district in the Duplin-Harnett-Johnston-Lee-Nash-Sampson county grouping.

The Alamance House Plan County Grouping: In the 2017 House Plan, the Alamance county grouping contains two House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Alamance county grouping to form a majority-African-American House district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 151,131. Each of the two House districts must therefore contain a population no lower than 75,490 and no higher than 75,641, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district’s population had just surpassed the 75,490 minimum House district population for the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 35.83%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the Alamance county grouping.

The Anson-Union House Plan County Grouping: In the 2017 House Plan, the Anson-Union county grouping contains three House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Anson-Union county grouping to form a majority-African-American House district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 228,240. Each of the three House districts must therefore contain a population no lower than 75,490 and no higher than 77,260, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district’s population had just surpassed the 75,490 minimum House district population for the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 37.63%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the Anson-Union county grouping.

The Brunswick-New Hanover House Plan County Grouping: In the 2017 House Plan, the Brunswick-New Hanover county grouping contains four House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Brunswick-New Hanover county grouping to form a majority-African-American House district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 310,098. Each of the four House districts must therefore contain a population no lower than 75,490 and no higher than 83,435, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district’s population had just surpassed the 75,490 minimum House district population for the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 35.7%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the Brunswick-New Hanover county grouping.

The Buncombe House Plan County Grouping: In the 2017 House Plan, the Buncombe county grouping contains three House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Buncombe county grouping to form a majority-African-American House district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 238,318. Each of the three House districts must therefore contain a population no lower than 75,490 and no higher than 83,435, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district’s population had just surpassed the 75,490 minimum House district population for the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 16.81%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the Buncombe county grouping.

The Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly House Plan County Grouping: In the 2017 House Plan, the Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly county grouping contains six House districts. However, plaintiffs' counsel asked me to freeze one district, HD-66, from the 2017 House Plan and to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in the remaining non-frozen areas within this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the non-frozen portions of the Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly county grouping to form a majority-African-American House district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the non-frozen portions of the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that the non-frozen portions of this county grouping have a total population of 409,669. Each of the five House districts must therefore contain a population no lower than 75,929 and no higher than 83,435, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the non-frozen portions of the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 75,929 minimum House district population for the non-frozen portions of the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 43.84%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the non-frozen portions of the Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly county grouping.

The Cleveland-Gaston House Plan County Grouping: In the 2017 House Plan, the Cleveland-Gaston county grouping contains four House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Cleveland-Gaston county grouping to form a majority-African-American House district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 304,164. Each of the four House districts must therefore contain a population no lower than 75,490 and no higher than 77,694, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district’s population had just surpassed the 75,490 minimum House district population for the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 43.63%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the Cleveland-Gaston county grouping.

The Columbus-Pender-Robeson House Plan County Grouping: In the 2017 House Plan, the Columbus-Pender-Robeson county grouping contains three House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Columbus-Pender-Robeson county grouping to form a majority-African-American House district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 244,483. Each of the three House districts must therefore contain a population no lower than 77,613 and no higher than 83,435, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district’s population had just surpassed the 77,613 minimum House district population for the county grouping. This process resulted in a population-compliant, non-contiguous House district whose African-American CVAP is only 49.34%.

When using VAP estimates from the Decennial Census rather than CVAP, I determined that it is possible to create a non-contiguous district in this county grouping with an African-American VAP ("BVAP") above 50%, but it is not possible to create a contiguous district in this grouping with a BVAP above 50%. I found the maximum BVAP possible for a contiguous district in this grouping to be approximately 44.2%.

The Cumberland House Plan County Grouping: In the 2017 House Plan, the Cumberland county grouping contains four House districts. Plaintiffs' counsel asked me to determine whether three majority African-American districts satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Cumberland county grouping to form three majority-African-American House districts that comply with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not three majority-African-American districts could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 319,431. Each of the four House districts must therefore contain a population no lower than 75,490 and no higher than 83,435, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating three majority-African-American districts is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census block to one group containing enough population to fill three districts in Cumberland County. These census blocks were assigned to this three-district group regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the three-district group's population had just surpassed 235,996, which is the minimum combined population for any three districts in this county grouping. This process resulted in a three-district group whose African-American CVAP is only 45.05%. Having constructed this three-district group with the minimum necessary population, we can logically infer that it would not be possible for the least-African-American among these three districts to have an African-American CVAP of higher than 45.05%.

Therefore, I conclude that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form three majority-African-American House districts in the Cumberland county grouping.

The Duplin-Onslow House Plan County Grouping: In the 2017 House Plan, the Duplin-Onslow county grouping contains three House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Duplin-Onslow county grouping to form a majority-African-American House district that complies with the ±5% equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 236,277. Each of the three House districts must therefore contain a population no lower than 75,490 and no higher than 83,435, in order to comply with the ±5% equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district’s population had just surpassed the 75,490 minimum House district population for the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 37.61%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the Duplin-Onslow county grouping.

The Forsyth-Yadkin House Plan County Grouping: In the 2017 House Plan, the Forsyth-Yadkin county grouping contains five House districts. Plaintiffs' counsel asked me to determine whether two majority African-American districts satisfying the five aforementioned criteria could be drawn in this county grouping. I found that it is not possible to do so.

In analyzing this county grouping, I first found that African-Americans are sufficiently numerous to comprise a slight majority in two House districts if geographic contiguity were not required. However, in order to determine whether two contiguous majority-African-American districts could be drawn, I conducted a large number of computer simulations in which district boundaries were drawn within the Forsyth-Yadkin in a race-conscious manner. Specifically, the simulation algorithm attempted to intentionally create a 50% African-American CVAP district while otherwise prioritizing geographic compactness and not violating the geographic contiguity and 5% population deviation requirements. The algorithm used census blocks as the building blocks in order to produce computer-simulated plans containing a majority-African-American House district. The algorithm proceeded by reassigning census blocks from one district to the other in an intentional effort to increase the African-American CVAP of the more heavily African-American district; this redrawing of the boundaries continued until one of the two districts in the Forsyth-Yadkin grouping achieved at least a 50% African-American CVAP. Beyond this racial goal, the algorithm also prioritized geographic compactness while adhering to the contiguity and population deviation requirements.

Using this simulation algorithm, I determined that it is not possible to create two majority African-American districts satisfying the five aforementioned criteria in the Forsyth-Yadkin county grouping. Specifically, I found it was only possible to produce two districts with approximately a 49% African-American CVAP. Even when this was possible, these two heavily African-American districts had Polsby-Popper scores of well under 0.05. Thus, I conclude that it is not possible to create two majority African-American districts satisfying the five aforementioned criteria in this county grouping. Furthermore, I found that using VAP rather than CVAP counts in Forsyth-Yadkin did not alter this overall conclusion.

The Franklin-Nash House Plan County Grouping: In the 2017 House Plan, the Franklin-Nash county grouping contains two House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping. I found that it is possible to do so.

To analyze this question, I conducted a large number of computer simulations in which district boundaries were drawn within this county grouping in a race-conscious manner. Specifically, the simulation algorithm attempted to intentionally create a 50% African-American CVAP district while otherwise prioritizing geographic compactness and not violating the geographic contiguity and 5% population deviation requirements. The algorithm used census blocks as the building blocks in order to produce computer-simulated plans containing a majority-African-American House district. The algorithm proceeded by reassigning census blocks from one district to the other in an intentional effort to increase the African-American CVAP of the more heavily African-American district; this redrawing of the boundaries continued until one of the two districts in the Franklin-Nash grouping achieved at least a 50% African-American CVAP. Beyond this racial goal, the algorithm also prioritized geographic compactness while adhering to the contiguity and population deviation requirements.

Using this simulation algorithm, I determined that it is possible to create a majority African-American district satisfying the five aforementioned criteria in the Franklin-Nash county grouping. Specifically, I found that it is possible to create a single, geographically contiguous House district containing a 50.0% African-American CVAP, a Reock score of 0.2944, a Polsby-Popper score of 0.0533, and a total population of 75,777. Thus, this computer-simulated district demonstrates that it is possible in the Franklin-Nash county grouping to produce a single majority-African-American district satisfying the five aforementioned criteria.

This finding is especially noteworthy because in my June 7, 2019 expert report, I had concluded it was not possible to create a 50% BVAP House district in Franklin-Nash with a Polsby-Popper score of at least 0.05. In this report, by contrast, I used CVAP numbers to measure African-American population, which led me to a different conclusion. In the Franklin-Nash county grouping, the African-American share of the 2013-2017 CVAP is higher than the African-American share of the VAP in the 2010 Census. As a result, it is possible to form a majority African-American district in this county grouping when using the updated CVAP numbers instead of the 2010 Census VAP numbers.

The Lenoir-Pitt House Plan County Grouping: In the 2017 House Plan, the Lenoir-Pitt county grouping contains three House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping. I found that it is possible to do so.

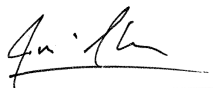
To analyze this question, I conducted a large number of computer simulations in which district boundaries were drawn within this county grouping in a race-conscious manner. Specifically, the simulation algorithm attempted to intentionally create a 50% African-American CVAP district while otherwise prioritizing geographic compactness and not violating the geographic contiguity and 5% population deviation requirements. The algorithm used census blocks as the building blocks in order to produce computer-simulated plans containing a majority-African-American House district. The algorithm proceeded by reassigning census blocks from one district to the other in an intentional effort to increase the African-American CVAP of the more heavily African-American district; this redrawing of the boundaries continued until one of the two districts in the Lenoir-Pitt grouping achieved at least a 50% African-American CVAP. Beyond this racial goal, the algorithm also prioritized geographic compactness while adhering to the contiguity and population deviation requirements.

Using this simulation algorithm, I determined that it is possible to create a majority African-American district satisfying the five aforementioned criteria in the Lenoir-Pitt county grouping. Specifically, the simulation algorithm created one district containing a total population of 75,630 and an African-American CVAP of 50.23%. This district is geographically contiguous; it has a Reock score of 0.36 and a Polsby-Popper score of 0.34. Thus, this computer-simulated district demonstrates that it is possible in the Lenoir-Pitt county grouping to produce a single majority-African-American district satisfying the five aforementioned criteria.

Moreover, I also determined that if one were to use VAP numbers instead of CVAP numbers to measure African-American population, it would be similarly possible to construct a majority African-American VAP district in the Lenoir-Pitt county grouping satisfying the five aforementioned criteria.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge.

This 17th day of September, 2019.



Jowei Chen

EXHIBIT B

Providing Black Voters with an Opportunity to Elect Candidates of Choice to the North Carolina State Legislature: A Jurisdiction-Specific, Functional Analysis of Select House and Senate County Grouping

Lisa Handley

September 17, 2019

I. Scope of Report

I was asked by counsel for Plaintiffs in this matter to conduct an analysis of voting patterns in select state House and Senate county groupings in North Carolina and, if voting in an election contest is racially polarized, to calculate the percent black voting age population necessary to provide black voters with an opportunity to elect their candidate of choice. In one county (Robeson County), I also performed these calculations for the Native American population.

The district-specific, functional analysis I performed is specific to those counties and districts presented in this report. Particularly given the differences in voting patterns that exist across North Carolina, my analysis cannot be extrapolated to other counties and districts not analyzed in this report, including districts that currently have African American representatives that I did not evaluate.

II. Professional Experience

I have over thirty years of experience as a voting rights and redistricting expert. I have advised scores of jurisdictions and other clients on minority voting rights and redistricting-related issues and have served as an expert in more than 25 voting rights cases. My clients have included state and local jurisdictions, the U.S. Department of Justice, national civil rights organizations, and such international organizations as the United Nations.

I have been actively involved in researching, writing and teaching on subjects relating to voting rights, including minority representation, electoral system design and redistricting. I co-authored a book, *Minority Representation and the Quest for Voting Equality* (Cambridge University Press, 1992), and co-edited a volume, *Redistricting in Comparative Perspective* (Oxford University Press, 2008), on these subjects. In addition, my research on these topics has appeared in peer-reviewed journals such as *Journal of Politics*, *Legislative Studies Quarterly*,

American Politics Quarterly, *Journal of Law and Politics*, and *Law and Policy*, as well as in edited books and law reviews.

I am one of the co-authors of the 2001 *North Carolina Law Review* article, "Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence,"[1] relied on by one of Defendants' experts in this case, Dr. Jeffrey Lewis. In addition to writing this piece, I have used the approach outlined in it to conduct numerous district-specific, functional analyses both for interested jurisdictions and in the context of litigation. For example, most recently, I was asked to ascertain the percent black voting age population that would allow black voters an opportunity to elect their candidates of choice in the challenged 3rd Congressional District in Virginia,[2] and the 11th Congressional District in Ohio.[3]

I have been a principal of Frontier International Electoral Consulting since co-founding the company in 1998. Frontier IEC provides electoral assistance in transitional democracies and post-conflict countries. In addition, I am a Visiting Research Academic at Oxford Brookes University in Oxford, United Kingdom. Attached to the end of this report is a copy of my *curriculum vitae*. I am being compensated at a rate of $300 an hour for my work in this case.

III. County Groupings and Elections Examined

Conclusions about racially polarized voting and the minority population percentage needed to elect minority-preferred candidates in the context of polarization should be drawn from as many elections as applicable and feasible. It is well-established that racial voting patterns in elections that include minority candidates are the most probative for determining if voting is racially polarized.[4] In addition, elections for the office at issue in a lawsuit – in this

[1] Bernard Grofman, Lisa Handley and David Lublin, "Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," *North Carolina Law Review*, volume 79 (5), June 2001.

[2] *Personhuballah v. Alcorn*, No. 3:13-cv-678 (E.D. Va.).

[3] *Ohio A. Philip Randolph Inst. v. Householder*, No. 1:18-CV-357 (S.D. Ohio).

[4] See, for example, *League of United Latin Am. Citizens, Council No. 4434 v. Clements*, 999 F.2d 831, 864 (5th Cir. 1993); *Nipper v. Smith*, 39 F.3d 1494, 1540 (11th Cir. 1994).

case, state House and state Senate seats – are the most relevant,[5] both for determining if voting is usually polarized and for calculating the percent minority population needed to elect minority-preferred candidates to the office if voting is racially polarized.

I analyzed all contested state legislative general and Democratic primary election contests since 2014 that included an African American candidate in the state Senate and state House county groupings at issue in this case.[6] I also examined all recent statewide state and federal elections – general elections and Democratic primaries – that included an African American candidate. A statewide analysis of voting patterns in two of these contests, the 2016 primary elections for Governor and Supervisor of Public Instruction, indicated that voting was not polarized – both black and white voters supported the winning white candidate.[7] I therefore focused my analysis on the following 2016 statewide contests for each state House and Senate grouping at issue: the general elections for Lieutenant Governor and State Treasurer and the Democratic primaries for Lieutenant Governor, Attorney General, Commissioner of Labor and Treasurer. In addition, I analyzed the 2012 general elections for U.S. President and Lieutenant Governor, and the 2012 Democratic primaries for Lieutenant Governor and Commissioner of Labor. While these contests were polarized statewide, they were not necessarily polarized in every given county grouping. Some of the primary elections considered had three or more candidates; although black voters often coalesced around a single candidate in some of these contests, in other instances they did not and determining a candidate of choice was not possible.

The 13 state House groupings I examined were: (1) Alamance; (2) Anson and Union; (3) Cabarrus, Davie, Montgomery, Richmond, Rowan and Stanly; (4) Cleveland and Gaston; (5) Columbus, Pender and Robeson; (6) Cumberland; (7) Duplin and Onslow; (8) Forsyth and Yadkin; (9) Franklin and Nash; (10) Guilford; (11) Lenoir and Pitt; (12) Mecklenburg; and (13)

[5] Courts have long held that endogenous elections are more probative in assessing minority vote dilution. Examples include *Bone Shirt V. Hazeltine* 461 F.3d 1011, 1020 (8th Cir. 2006); *Clay v. Bd. of Educ. of City of St. Louis,* 90 F.3d 1357, 1362 (8th Cir. 1996); *Magnolia Bar Ass'n, Inc. v. Lee* 994 F.2d 1143, 1149 (5th Cir. 1993); *Jenkins v. Red Clay Consol. School 25 Dist. Bd. of Educ.* 4 F.3d 1103 (3d Cir. 1993); *Citizens for a Better Gretna v. City of Gretna, La.* 834 F.2d 496, 502 (5th Cir. 1987); *Rodriguez v. Harris Cnty, Texas* 964 19 F. Supp. 2d 686, 759 (S.D. Tex. 2013).

[6] In North Carolina, most black voters choose to vote in Democratic primaries as opposed to Republican primaries.

[7] This report does not address the extent to which the 2016 Democratic primaries for Governor and Supervisor of Public Instruction were racially polarized in any specific county grouping.

Wake. The 5 state Senate county groupings were: (1) Alamance, Guilford and Randolph; (2) Davie and Forsyth; (3) Duplin, Harnett, Johnson, Lee, Nash and Sampson; (4) Franklin and Wake; and (5) Mecklenburg.[8]

IV. Success Rates of African American State Legislative Candidates

While African American state legislators have generally been elected from legislative districts with substantial black populations within the county groupings at issue here, these districts are usually not majority black in voting age population and in many cases are below or substantially below 40% in voting age population. Table 1 lists all state Senate districts under the 2017 Senate Plan that had a BVAP greater than 30% and encompass at least one county at issue in the remedial phase of this case. The table also shows the results of the 2018 election in each of these districts.

Table 1: State Senators Elected from Districts with Black Voting Age Populations Greater the 30% in Relevant Counties

2017 Senate Plan District	Percent Black Voting Age Population	State Senator	Race	Party	Share of two-party vote in 2018 general election	Senate County Grouping
38	48.46%	Mujtaba Mohammed	O	D	81.7%	Mecklenburg
28	43.64%	Gladys Robinson	AA	D	75.2%	Alamance-Guilford-Randolph
37	42.73%	Jeff Jackson	W	D	79.6%	Mecklenburg
21	42.15%	Ben Clark	AA	D	70.9%	Cumberland-Hoke
32	39.18%	Paul Lowe, Jr.	AA	D	72.9%	Davie-Forsyth
40	38.88%	Joyce Waddell	AA	D	75.6%	Mecklenburg
14	38.85%	Dan Blue	AA	D	73.4%	Franklin-Wake
7	33.93%	Louis Milford Pate, Jr.	W	R	53.9%	Lenoir-Wayne
5	32.94%	Don Davis	AA	D	55.3%	Greene-Pitt
19	31.69%	Kirk DeViere	W	D	50.4%	Cumberland-Hoke

If the Democratic candidate represented the candidate of choice for African Americans in each of the general elections listed in Table 1, then African Americans were able to elect the

[8] Mecklenburg results are reported under the state House grouping but the discussion of course holds for the state Senate as well.

candidate of their choice in 9 of the 10 districts with a BVAP in excess of 30% in relevant Senate county groupings, and the majority of these successful candidates were African Americans. To be clear, Table 1 merely displays past election results; this analysis is not meant to suggest that a BVAP of 30% is a bright-line percentage that is either necessary or sufficient for African Americans to elect a candidate of their choice, either in the county groupings depicted in Table 1 or in other counties not in Table 1. Indeed, Table 1 does not include results for numerous counties across the State because those counties do not currently have state Senate districts with a BVAP above 30% or are not at issue in the remedial phase of this lawsuit. The results could differ significantly for such other counties.

Table 2 provides the same information as Table 1 for all state House districts under the 2017 House Plan that had a BVAP greater than 30% and encompass at least one county at issue in the remedial phase of this case.

Table 2: State Representative Elected from Districts with Black Voting Age Populations Greater the 30% in Relevant Counties

2017 House Plan District	Percent Black Voting Age Population	State Representative	Race	Party	Share of two-party vote in 2018 general election	House County Grouping
101	50.8%	Carolyn Logan	AA	D	78.7%	Mecklenburg
43	50.0%	Elmer Floyd	AA	D	74.1%	Cumberland
99	49.5%	Nasif Majeed	AA	D	82.4%	Mecklenburg
107	49.4%	Kelly Alexander	AA	D	100.0%	Mecklenburg
38	48.3%	Yvonne Lewis Holley	AA	D	84.1%	Wake
72	47.5%	Derwin Montgomery	AA	D	79.1%	Forsyth-Yadkin
8	44.9%	Kandie D. Smith	AA	D	64.6%	Lenoir-Pitt
33	44.2%	Rosa U. Gill	AA	D	78.7%	Wake
102	43.9%	Becky Carney	W	D	83.4%	Mecklenburg
58	42.7%	Amos Quick	AA	D	76.8%	Guilford
42	42.2%	Marvin W. Lucas	AA	D	78.1%	Cumberland
25	40.7%	James D. Gailliard	AA	D	53.3%	Franklin-Nash
61	40.3%	Mary Price Harrison	W	D	73.3%	Guilford
60	40.1%	Cecil Brockman	AA	D	69.0%	Guilford
21	39.0%	Raymond Smith Jr.	AA	D	52.6%	Bladen-Greene-Harnett-Johnston-Lee-Sampson-Wayne
88	38.4%	Mary G. Belk	W	D	75.6%	Mecklenburg
57	38.4%	Ashton Clemmons	W	D	67.6%	Guilford
106	38.0%	Carla Cunningham	AA	D	80.6%	Mecklenburg
12	37.4%	Chris Humphrey	W	R	56.1%	Lenoir-Pitt

2017 House Plan District	Percent Black Voting Age Population	State Representative	Race	Party	Share of two-party vote in 2018 general election	House County Grouping
71	36.6%	Evelyn Terry	AA	D	72.7%	Forsyth-Yadkin
39	35.5%	Darren Jackson	W	D	67.9%	Wake
100	32.1%	John Autry	W	D	70.8%	Mecklenburg
44	31.8%	Billy Richardson	W	D	56.6%	Cumberland
22	31.5%	William Brisson	W	R	43.3%	Bladen-Greene-Harnett-Johnston-Lee-Sampson-Wayne
92	30.2%	Chaz Beasley	AA	D	70.0%	Mecklenburg

As in the Senate, if the Democratic candidate represented the candidate of choice for African Americans in each of the general elections listed in Table 2, then African Americans were able to elect the candidate of their choice in 23 of the 25 districts with a BVAP in excess of 30% in relevant House county groupings, and the majority of these successful candidates were African Americans. In addition to the African American state representatives listed above, there are two elected from districts that do not have substantial black populations: Sydney Batch is elected from a 14.3% BVAP district in Wake County, and Brandon Lofton is elected from a 6.2% BVAP district in Mecklenburg County. The same clarifications apply, however, for this analysis as with the Senate. This analysis is not meant to suggest that a BVAP of 30% is a bright-line percentage that is either necessary or sufficient for African Americans to elect a candidate of their choice, either in the county groupings depicted in Table 2 or in other counties not in Table 2. As before, Table 2 does not include results for numerous counties across the State because those counties do not currently have state House districts with a BVAP above 30% or are not at issue in the remedial phase of this lawsuit, and the results could differ significantly for such other counties.

V. Analyzing Voting Patterns by Race

In addition to the above analysis, I have conducted a systematic analysis to determine what percent BVAP would be required to provide black voters the opportunity to elect their preferred candidates in state legislative as well as statewide contests in relevant county groupings. For each election analyzed, I report the participation rates of black and white voters, as well as the percentage of black and white support for the black-preferred candidate. If the

contest is polarized, with black and white voters supporting different candidates, I indicate the percentage BVAP required, given the participation rates and voting patterns of black and white voters, for the black-preferred candidate to win in the given election contest.

In this report, I discuss black and white voting behavior but in reality the analysis considers black and non-black voting behavior. While in most areas of the state, non-black voters are mostly white, this is not true of Roberson County, which has a substantial Native American population. I consider not only blacks and non-blacks, but Native Americans and non-Native Americans for this county.

The voting patterns of black and white voters must be estimated using statistical techniques because direct information about how individuals have voted is simply not available – the race of the voter is not, of course, obtainable from the ballot. I used a standard statistical technique to produce estimates, King's ecological inference (EI).[9] Developed by Professor Gary King in the 1990s and later refined, this statistical method utilizes the method of bounds and incorporates maximum likelihood statistics to produce estimates of voting patterns by race.[10] King's EI has been introduced and accepted in numerous district court proceedings.[11]

The database used for this analysis matched demographic data for each election precinct – white, black and Native American VAP, based on the 2010 census – with the election results for the precinct.[12] The use of VAP data made sense in this case since participation as a product

[9] The statistical package I used was r for the ecological regression analysis and eiCompare for r for the ecological inference analysis.

[10] The following is an example of how the method of bounds works: if a given precinct has 100 voters, of which 75 are black and 25 are white, and the African American candidate received 80 votes, then at least 55 of the black voters (80 – 25) voted for the African American candidate and at most all 75 did. (The method of bounds is less useful for calculating estimates for white voters, as anywhere between none of the white voters and all of the white voters could have voted for the candidate.) These bounds are used when calculating EI estimates but not when using ecological regression.

[11] A list of cases in which King's EI was used can be found in Justin de Benedictis-Kessner, "Evidence in Voting Rights Litigation: Producing Accurate Estimates of Racial Voting Patterns," *Election Law Journal*, vol.14 (4), 2015. This article also discusses other statistical approaches to analyzing voting patterns by race in voting rights litigation, including homogeneous precinct analysis and ecological regression (ER).

[12] Some of the precinct VAP data could not be matched with election results. The degree to which this occurred varied by county, with some counties assigning early and absentee votes back to the election precinct and other counties not doing this. In addition, if counties combined or split election precincts for an election, these results could not be matched up to the correct demographic data.

of VAP is required to determine the percentage of black VAP necessary for the candidate of choice of black voters to win the given election.

VI. Calculating the Percent Black Voting Age Population Needed to Elect Black-Preferred Candidate

The percentage minority population needed to create a district that provides minorities with an opportunity to elect their candidates of choice varies depending on the specific location of the district – there is no single universal or statewide target that can be applied. A district-specific, functional analysis that considers the participation rates and voting patterns of whites and minorities must be conducted to determine the percentage of the minority population that is needed to provide minority voters with an opportunity to elect candidates of their choice. Relying on the estimates of black and white voting behavior produced by the racial bloc voting analysis I conducted, in each election contest that was polarized, I calculated the percent BVAP needed for the candidate of choice of African Americans to win. When voting is not racially polarized in a given election and area, we need not calculate the percent BVAP needed for the black-preferred candidate to win since black and white voters in that instance support the same candidate.

A. Equalizing Turnout

Black turnout as a percentage of BVAP is generally somewhat lower than white turnout as a percentage of WVAP in the general elections analyzed. For example, according to Table 3, below, in Alamance in the 2016 general election for Lieutenant Governor, 44.7% of blacks of voting age turned out and cast a vote, while 70.6% of whites of voting age cast a vote.[13] Using these turnout percentages, I can calculate the percent black VAP needed to ensure that black voters

[13] In this example, turnout actually refers to the percent of black and white VAP voting for the highest statewide office on the ticket that included an African American candidate in the general election – the race for Lieutenant Governor.

comprise at least 50 percent of the voters for this election.[14] The equalizing percentage is calculated mathematically by solving the following equation:

Let
M = the proportion of the district's voting age population that is black
W = 1-M = the proportion of the district's voting age population that is white
A = the proportion of the black voting age population that turned out to vote
B = the proportion of the white voting age population that turned out to vote

Therefore,
M(A) = the proportion of the population that is black and turned out to vote (1)
(1-M)B = the proportion of total population that is white and turned out to vote (2)

To find the value of M that is needed for (1) and (2) to be equal, (1) and (2) are set as equal and we solve for M algebraically:

$M(A) = (1 - M)B$
$M(A) = B - M(B)$
$M(A) + M(B) = B$
$M (A + B) = B$
$M = B/ (A+B)$

Thus, for the example above, A= .447, B = .706 and M = .706/ (.447 + .706). Therefore, a 61.2% BVAP district would produce equalized black and white turnout in the 2016 general election in this county grouping.

The equalizing percentage for BVAP in Democratic primaries in North Carolina is much lower than in general elections. This is because most black voters choose to vote in Democratic primaries while white voters tend to divide their votes between the Democratic and Republican primaries. For example, for the same county (Alamance), black turnout as a percentage of BVAP was 14.9 and white turnout as a percentage of WVAP was 8.3.[15] (See Table 3, below.) The percentage BVAP required to equalize black and white turnout in the Democratic primary in this instance in only 35.8%.

[14] For a more in-depth discussion of equalizing turnout see Kimball Brace, Bernard Grofman, Lisa Handley and Richard Niemi, "Minority Voting Equality: The 65 Percent Rule in Theory and Practice," *Law and Policy*, 10 (1), January 1988.

[15] Turnout in this example is actually the percent of black and white VAP voting for the highest statewide office on the ticket that included an African American candidate in the statewide Democratic primary – the race for Lieutenant Governor.

Equalizing the number of black and white voters who vote in an election would only be necessary to ensure that minority voters had the opportunity to elect their candidates of choice if white voters are rarely willing to vote for black-preferred candidates. If a sufficient percentage of white voters, consistently demonstrate a willingness to support black-preferred candidates, then the number of black voters need not equal the number of white voters who vote in a given election – white voters will "crossover" and help elect the black-preferred candidates. A district-specific, functional analysis should take into account not only differences in the turnout rates of black and white voters, but also the voting patterns of white and black voters.[16]

B. Incorporating Minority Cohesion and White Crossover Voting

Estimates of voting patterns by race for of the elections analyzed for this report indicate that many were not racially polarized – black voters and white voters supported the same candidates. When black and white voters support different candidates, however, close attention must be paid not only to the turnout rates of black and white voters, but to the percentage of white voters who are willing to support black-preferred candidates, as well as how to cohesive black voters are in their support of these candidates. When there are very high levels of minority cohesion and consistent, sufficient white crossover voting, the district need not be majority black in composition to provide black voters with a realistic opportunity to elect their candidates of choice to office.

To illustrate this mathematically, consider a district that has 2000 persons of voting age, 50% of whom are black and 50% of whom are white. Using the estimates of black and white turnout and support for the black-preferred candidate in the 2016 general election in Alamance County for Lieutenant Governor, black turnout is lower than white turnout: 44.7% of blacks of voting age and 70.6% of whites of voting age turned out to vote. (See Table 3, below.) This means that, for our illustrative election, there will be 447 black voters and 706 white voters. As indicated by Table 3, 99.3% of the black voters supported the black-preferred candidate (Linda

[16] For an in-depth discussion of this approach to creating effective minority districts, see Bernard Grofman, Lisa Handley and David Lublin, "Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," *North Carolina Law Review*, volume 79 (5), June 2001.

Coleman) and 31.2% of the white voters supported her in this election.[17] Thus, in our example, black voters will cast 444 of their 447 votes for the black-preferred candidate and their other 3 votes for the other candidates; white voters will cast 220 of their 706 votes for the black-preferred candidate and 486 votes for the other candidates. The black-preferred candidate will receive 57.6% of the vote under these conditions:

Black and White Voters	**Votes for Black-Preferred Candidate**	**Votes for Other Candidates**
Black 1000 x .447 = 447	447 x .993 = 444	447 x .007 = 3
White 1000 x .706 = 706	706 x .312 = 220	706 x .688 = 486
1153	664	486

The black-preferred candidate will garner a total of 664 votes (444 from black voters and 220 from white voters), while the other candidates will receive 486 votes (3 from black voters and 486 from white voters). The black-preferred candidate will win the election with 664 of the 1153 votes cast in the contest, or 57.6% of the vote in this hypothetical 50% black VAP district. The black-preferred candidate in this election actually received only 40.5% of the vote in Alamance County because the county is slightly less than 19% black in VAP. But as the column labeled "percent of vote B-P cand would have received if district was 50% black VAP" indicates, Coleman would have received 57.6% of the vote if the BVAP was 50%. And, as the last column in Table 3 indicates, in a district with at least 37.6% BVAP, the black-preferred candidate would win.[18]

The Democratic primary for Lieutenant Governor in 2016 in Alamance was not racially polarized. (There were 4 candidates and thus, while Coleman received only 43% of the white vote, she was the top choice of white voters; she received 87% of the black votes cast.) However, the 2016 Democratic primary race for Attorney General was polarized in the county so this will serve as the basis for the illustrative example. (See Table 3, below.) The turnout rate for

[17] The 2016 general election for Lieutenant Governor included three candidates: Dan Forest, a white Republican, Linda Coleman, an African-American Democrat, and Libertarian candidate Jacki Cole. Dan Forest won the election with 51.8% of the statewide vote.

[18]

Black and White Voters	**Votes for Black-Preferred Candidate**	**Votes for Other Candidates**
Black 376 x .447 = 168	168 x .993 = 167	168 x .007 = 1
White 624 x .706 = 441	441 x .312 = 138	441 x .688 = 303
609	305	304

blacks was 14.4%; for whites it was 8.4%. Marcus Williams, the African American candidate, received 99.4% of the black vote and 39.0% of the white vote. However, because black turnout was so much higher than white turnout (many white voters cast ballots in the Republican primary rather than the Democratic primary), Williams would have received over 77% of the vote (176 out of 228 votes) in a 50% BVAP district:

Black and White Voters	**Black-Preferred Candidate Votes**	**White-Preferred Candidate Votes**
Black 1000 x .144 = 144	144 x .994 = 143	144 x .006 = 1
White 1000 x .084 = 84	84 x .390 = 33	84 x .610 = 67
228	176	52

Williams carried Alamance County, which has a 18.9% BVAP, with 51.1% of the vote and would have won the primary in any district with at least 11.5% BVAP under these conditions.

VII. Results of Analysis

Tables 3 through 22 report the results of my racial bloc voting analysis and, if the contest is racially polarized, indicate the percentage of vote a black-preferred candidate would receive in each House and Senate grouping of interest, given the turnout rates of blacks and whites and the degree of black cohesion and white crossover voting for each election, in a 50%, 45%, 40% and 35% black VAP district. Each table considers a different state House county grouping (Tables 3-15) or state Senate county grouping (Tables 16-19). In each table, the first column indicates the relevant election, the second column indicates either the BVAP of the House or Senate district (for state legislative elections) or the BVAP of the entire counties that comprise the county grouping (for the statewide elections analyzed). The third and fourth columns then reflect the race and share of the vote received by the candidate of choice of African Americans.

Of significance, the column with the headers “black voters: B-P” and “white voters: B-P” represent my calculations of the share of black voters and white voters who supported the black-preferred candidate (i.e. the “B-P” candidate) in that election. If the numbers in these columns are both greater than 50%, it means that voting in that particular election was not racially polarized because a majority of blacks and whites both supported the candidate of choice of

African Americans. The final column calculates that percent BVAP needed for the black-preferred candidate to have won the election if that election was racially polarized.[19]

In addition to analyzing polarized voting across each of the county groupings at issue, I also analyzed racially polarized voting within specific individual counties, including Forsyth County (Table 20) and Pitt County (Table 21). Moreover, I conducted a racial polarization analysis for Robeson County, but for Native Americans rather than African Americans (Table 22). For this analysis, I divided all voters into Native Americans and non-Native Americans and then analyzed whether and to what extent voting was polarized between these two groups.

VIII. Conclusion

My analysis of voting patterns by race in recent statewide and state legislative contests in select North Carolina state House and Senate county groupings indicates that a number of election contests were not racially polarized. When the election contest was polarized, I used the estimates of black and white turnout, and black and white votes for the black-preferred candidate to calculate the percent BVAP required for black voters to elect their preferred candidate in that election. The black percentage needed varies both by grouping – hence the importance of conducting a district-specific analysis – and the contest considered. In some county groupings such as Guilford, Cumberland, Forsyth-Yadkin, and Mecklenburg in the House, as well as Franklin-Wake, Davie-Forsyth, and Mecklenburg in the Senate, there are many elections that were not racially polarized because a majority of whites supported the candidate of choice of African Americans. Substantially greater white bloc voting was found in other county groupings.

[19] The column titled "actual vote of B-P candidate" represent the raw percentage of the vote received by that candidate as reported by the State Board of Elections, and not the share of the two-party vote.

Table 3

House Grouping: Alamance	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 64	18.5	AA	42.2	24.5	96.7	3.3	55.7	38.2	61.8	56.1	53.7	51.5	49.4	36.5
2016														
2016 Lt Governor	18.9	AA	40.5	44.7	99.3	0.7	70.6	31.2	68.8	57.6	54.4	51.4	48.5	37.6
2016 Treasurer	18.9	AA	43.2	43.2	99.9	0.1	68.1	34.5	65.5	59.9	56.8	53.9	51.2	32.9
2014														
none														
2012														
2012 President	18.9	AA	42.7	46.0	99.5	0.5	67.4	33.1	66.9	60.0	56.9	53.9	50.9	33.3
2012 Lt Governor	18.9	AA	43.3	45.3	99.9	0.1	65.2	33.9	66.1	61.0	57.8	54.8	51.9	31.7
Democratic primaries														
2018														
State House 64	18.5	AA	46.8	5.4	87.8	12.2	3.5	35.9	64.1	67.4	64.9	62.2	59.5	19.5
2016														
2016 Lt Governor	18.9	AA	52.3	14.9	87.0	13.0	8.3	43.0	57.0	71.3	69.2	67.0	64.6	not polarized, 1st choice same
2016 Attn General	18.9	AA	51.1	14.4	99.4	0.6	8.4	39.0	61.0	77.1	74.3	71.2	68.0	11.5
2016 Comm of Labor	18.9	AA	50.3	14.1	83.6	16.4	8.4	40.7	59.3	67.6	65.5	63.4	61.1	14.2
2016 Treasurer	18.9	AA	57.4	14.7	60.2	39.8	8.4	54.7	45.3	58.2	57.9	57.7	57.4	not polarized
2014														
none														
2012														
2012 Lt Governor	18.9	AA	49.2	10.3	52.8	47.2	9.7	48.6	51.4	50.8	50.6	50.3	50.1	32.0
2012 Comm of Labor	18.9	AA	33.5	10.3	58.6	41.4	9.1	26.5	73.5	43.5	41.9	40.3	38.7	70.7

Table 4

House Grouping: Anson and Union	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
none														
2016														
2016 Lt Governor	16.5	AA	32.2	55.8	100.0	0.0	75.1	23.1	76.9	55.9	52.2	48.6	45.1	42.0
2016 Treasurer	16.5	AA	34.6	54.6	99.6	0.4	73.4	27.3	72.7	58.1	54.7	51.3	48.0	38.1
2014														
none														
2012														
2012 President	16.5	AA	37.4	34.7	98.3	1.7	70.6	30.0	70.0	52.5	49.6	46.9	44.3	45.7
2012 Lt Governor	16.5	AA	39.1	33.3	99.0	1.0	68.0	32.0	68.0	54.0	51.2	48.5	46.0	42.9
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	16.5	AA	40.8	23.0	87.4	12.6	6.2	10.6	89.4	71.1	68.4	65.3	61.8	22.1
2016 Attn General	16.5	AA	58.3	21.3	92.7	7.3	6.1	48.1	51.9	82.8	81.1	79.3	77.2	1.3
2016 Comm of Labor	16.5	AA	55.3	22.9	63.5	36.5	5.9	49.7	50.3	60.7	60.2	59.7	59.0	0.6
2016 Treasurer	16.5	AA	56.5	19.4	84.3	15.7	5.9	47.6	52.4	75.7	74.4	72.8	71.1	2.1
2014														
none														
2012														
2012 Lt Governor	16.5	AA	47.2	25.0	63.2	36.8	4.6	34.7	65.3	58.8	58.0	57.0	55.9	17.6
2012 Comm of Labor	16.5	AA	37.2	25.0	51.7	48.3	4.1	26.9	73.1	48.2	47.6	46.8	45.9	69.0

Table 5

House Grouping: Cabarrus, Davie, Montgomery, Richmond, Rowan, and Stanly	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 82	14.1	AA	47.3	34.8	99.9	0.1	64.2	38.9	61.1	60.3	57.6	55.1	52.7	29.1
2016														
2016 Lt Governor	15.5	AA	32.9	34.7	100.0	0.0	67.7	26.7	73.3	51.5	48.4	45.4	42.6	47.6
2016 Treasurer	15.5	AA	36.1	36.1	99.5	0.5	65.7	29.2	70.8	54.1	51.0	48.0	45.3	43.3
2014														
none														
2012														
2012 President	15.5	AA	37.6	58.9	99.6	0.4	62.4	28.1	71.9	62.8	59.3	55.7	52.2	31.9
2012 Lt Governor	15.5	AA	39.1	55.0	97.8	2.2	60.3	30.6	69.4	62.7	59.3	56.0	52.7	30.8
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	15.5	AA	45.2	14.7	73.4	26.6	6.0	37.6	62.4	63.0	61.5	59.8	58.0	17.8
2016 Attn General	15.5	AA	55.5	14.0	87.9	12.1	5.8	46.6	53.4	75.8	74.0	72.1	69.9	3.6
2016 Comm of Labor	15.5	AA	53.6	12.5	78.2	21.8	5.7	45.8	54.2	68.1	66.6	65.0	63.3	6.4
2016 Treasurer	15.5	AA	53.6	12.2	74.5	25.5	5.8	48.8	51.2	66.2	65.1	63.8	62.4	2.3
2014														
none														
2012														
2012 Lt Governor	15.5	AA	55.0	22.4	55.1	44.9	7.0	56.0	44.0	55.3	55.3	55.4	55.4	not polarized
2012 Comm of Labor	15.5	AA	34.0	20.2	51.6	48.4	7.0	29.2	70.8	45.8	44.9	43.9	42.8	81.8

Table 6

House Grouping: Cleveland and Gaston	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 110	15.3	AA	32.2	29.5	95.7	4.3	52.7	27.8	72.2	52.2	49.1	46.3	43.5	46.5
State Senate 43	14.8	AA	33.8	20.8	100.0	0.0	29.8	26.4	73.6	56.7	53.2	49.8	46.5	40.3
2016														
2016 Lt Governor	16.2	AA	31.8	37.1	99.6	0.4	63.9	23.1	76.9	51.2	47.7	44.4	41.3	48.3
2016 Treasurer	16.2	AA	36.0	37.2	99.6	0.4	61.8	27.0	73.0	54.3	51.0	47.8	44.8	43.5
2014														
none														
2012														
2012 President	16.2	AA	37.6	45.7	99.8	0.2	59.7	28.1	71.9	59.2	55.7	52.3	49.0	36.5
2012 Lt Governor	16.2	AA	39.1	43.7	100.0	0.0	57.9	30.0	70.0	60.1	56.7	53.4	50.2	34.6
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	16.2	AA	44.4	17.7	81.4	18.6	4.5	23.5	76.5	69.7	67.7	65.4	62.8	17.7
2016 Attn General	16.2	AA	57.5	17.7	95.5	4.5	4.4	29.6	70.4	82.4	80.1	77.6	74.7	10.0
2016 Comm of Labor	16.2	AA	53.8	17.3	64.3	35.7	4.3	49.7	50.3	61.4	60.9	60.3	59.7	0.5
2016 Treasurer	16.2	AA	52.6	17.3	59.5	40.5	4.4	47.2	52.8	57.0	56.6	56.1	55.6	7.0
2014														
none														
2012														
2012 Lt Governor	16.2	AA	59.0	13.6	55.1	44.9	7.5	58.8	41.2	56.4	56.6	56.8	57.0	not polarized
2012 Comm of Labor	16.2	AA	32.0	12.8	40.8	59.2	7.0	31.3	68.7	37.4	37.0	36.5	36.0	no clear B-P cand

Table 7

House Grouping: Columbus, Pender and Robeson	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 46	24.7	AA	36.7	27.0	82.3	17.7	36.3	26.3	73.7	50.2	47.5	44.9	42.3	49.7
State Senate 13	26.4	AA	37.5	30.5	88.3	11.7	34.7	20.8	79.2	52.4	49.0	45.7	42.5	46.4
2016														
2016 Lt Governor	24.5	AA	43.0	48.4	92.4	7.6	47.5	28.0	72.0	60.5	57.3	54.1	50.8	33.7
2016 Treasurer	24.5	AA	47.0	45.8	94.1	5.9	47.1	33.9	66.1	63.6	60.6	57.6	54.6	27.3
2014														
none														
2012														
2012 President	24.5	AA	49.9	63.9	93.8	6.2	46.3	36.6	63.4	69.8	66.9	64.0	61.0	18.1
2012 Lt Governor	24.5	AA	57.4	61.8	99.6	0.4	44.7	46.0	54.0	77.1	74.4	71.7	68.9	5.5
Democratic primaries														
2018														
State Senate 13	26.4	AA	69.2	11.3	94.4	5.6	5.4	52.3	47.7	80.8	78.9	76.8	74.6	not polarized
2016														
2016 Lt Governor	24.5	AA	41.5	12.8	59.8	40.2	8.7	31.5	68.5	48.3	47.0	45.5	44.0	56.2
2016 Attn General	24.5	AA	60.1	12.7	86.3	13.7	8.8	46.5	53.5	70.0	68.0	66.0	63.9	6.3
2016 Comm of Labor	24.5	AA	38.5	12.9	51.6	48.4	8.7	32.6	67.4	43.9	43.0	42.0	41.0	88.0
2016 Treasurer	24.5	AA	64.8	12.9	81.5	18.5	8.7	52.7	47.3	69.9	68.5	67.0	65.5	not polarized
2014														
State Senate 13	26.4	AA	27.3	20.3	46.5	53.5	12.8	19.3	80.7	36.0	34.7	33.3	31.8	4 cands, no clear B-P cand
2012														
Lt Governor	24.5	AA	50.5	25.6	54.5	45.5	12.0	50.2	49.8	53.1	52.9	52.7	52.5	not polarized
Comm of Labor	24.5	AA	27.9	21.6	39.7	60.3	11.5	26.8	73.2	35.2	34.6	34.0	33.3	no clear B-P cand

Table 8A

House Grouping: Cumberland	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 42	42.2	AA	76.1	40.2	100.0	0.0	37.8	56.8	43.2	79.1	76.9	74.7	72.5	not polarized
State House 43	50.0	AA	74.1	36.4	99.3	0.7	36.8	50.1	49.9	74.6	72.1	69.7	67.2	not polarized
2016														
2016 Lt Governor	37.1	AA	55.8	47.3	99.5	0.5	60.2	32.7	67.3	62.1	58.8	55.7	52.6	30.8
2016 Treasurer	37.1	AA	58.0	47.3	99.9	0.1	58.9	36.6	63.4	64.8	61.7	58.7	55.7	25.1
State Senate 19	22.5	AA	43.6	48.3	83.8	16.2	57.4	29.4	70.6	54.3	51.6	49.0	46.4	42.0
2014														
none														
2012														
2012 President	37.1	AA	59.5	55.7	99.9	0.1	55.8	39.7	60.3	69.8	66.8	63.8	60.7	17.1
2012 Lt Governor	37.1	AA	61.6	55.5	99.6	0.4	54.3	42.4	57.6	71.3	68.4	65.6	62.7	13.0

Table 8B

House Grouping: Cumberland	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 43	50	AA	79.2	7.3	94.4	5.6	6.8	65.0	35.0	80.2	78.7	77.3	75.8	not polarized
2016														
2016 Lt Governor	37.1	AA	59.1	15.4	72.1	27.9	9.9	48.6	51.4	62.9	61.8	60.6	59.3	not polarized, 1st choice same
2016 Attn General	37.1	AA	66.7	15.3	90.7	9.3	9.8	43.2	56.8	72.2	69.8	67.4	64.9	9.7
2016 Comm of Labor	37.1	AA	46.0	15.4	63.1	36.9	9.8	34.8	65.2	52.1	50.7	49.3	47.8	42.5
2016 Treasurer	37.1	AA	52.3	15.3	74.5	25.5	11.0	39.2	60.8	59.7	58.0	56.2	54.3	24.1
2014														
none														
2012														
2012 Lt Governor	37.1	AA	70.7	11.9	73.5	26.5	12.8	68.5	31.5	70.9	70.7	70.4	70.2	not polarized
2012 Comm of Labor	37.1	AA	42.8	11.5	43.7	56.3	10.0	42.2	57.8	43.0	42.9	42.9	42.8	not polarized, 1st choice same

Table 9

House Grouping: Duplin and Onslow	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 4	22.6	AA	34.9	29.7	99.0	1.0	34.1	15.1	84.9	54.2	50.0	45.9	41.9	45.0
2016														
2016 Lt Governor	18.5	AA	33.5	32.4	99.2	0.8	53.3	18.0	82.0	48.7	45.0	41.4	38.0	51.7
2016 Treasurer	18.5	AA	35.7	32.1	99.6	0.4	51.2	21.1	78.9	51.4	47.7	44.2	40.9	48.2
2014														
none														
2012														
2012 President	18.5	AA	38.3	47.6	98.7	1.3	47.0	22.7	77.3	60.9	57.1	53.3	49.5	35.6
2012 Lt Governor	18.5	AA	41.9	46.1	97.3	2.7	44.9	28.0	72.0	63.1	59.6	56.2	52.7	31.2
Democratic primaries														
2018														
2016														
2016 Lt Governor	18.5	AA	46.7	11.1	91.4	8.6	4.9	32.5	67.5	73.4	70.8	67.9	64.9	15.7
2016 Attn General	18.5	AA	64.6	11.0	92.8	7.2	4.6	43.4	56.6	78.2	76.1	73.8	71.2	6.1
2016 Comm of Labor	18.5	AA	51.0	11.1	71.5	28.5	4.6	46.0	54.0	64.0	62.9	61.7	60.4	7.2
2016 Treasurer	18.5	AA	54.9	11.2	94.9	5.1	4.6	41.9	58.1	79.5	77.2	74.7	72.0	6.9
2014														
none														
2012														
2012 Lt Governor	18.5	AA	52.2	19.3	59.9	40.1	4.8	47.6	52.4	57.5	57.0	56.6	56.0	5.7
2012 Comm of Labor	18.5	AA	24.8	18.9	39.8	60.2	4.2	28.5	71.5	37.7	37.4	37.0	36.5	no clear B-P cand

Table 10

House Grouping: Forsyth and Yadkin	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 71	36.6	AA	72.7	24.7	98.7	1.3	57.0	63.4	36.6	74.1	72.6	71.3	70.1	not polarized
State House 72	47.5	AA	79.1	31.8	99.6	0.4	49.4	69.6	30.4	81.3	79.9	78.6	77.3	not polarized
State Senate 32	39.2	AA	72.9	28.5	99.2	0.8	50.5	65.0	35.0	77.3	75.8	74.3	73.0	not polarized
2016														
2016 Lt Governor	23.6	AA	48.2	40.5	99.3	0.7	70.9	29.1	70.9	54.6	51.5	48.5	45.6	42.6
2016 Treasurer	23.6	AA	47.7	40.1	99.5	0.5	69.6	28.2	71.8	54.3	51.0	48.0	45.1	43.3
2014														
State House 71	45.5	AA	76.6	25.8	99.3	0.7	39.6	62.6	37.4	77.1	75.4	73.7	72.1	not polarized
2012														
2012 President	23.6	AA	50.6	48.9	98.8	1.2	47.0	32.7	67.3	66.4	63.1	59.8	56.4	25.4
2012 Lt Governor	23.6	AA	50.9	46.4	98.5	1.5	44.9	34.3	65.7	66.9	63.7	60.5	57.3	23.9
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	23.6	AA	55.6	14.6	81.3	18.7	11.4	44.3	55.7	65.1	63.2	61.3	59.4	not polarized, 1st choice same
2016 Attn General	23.6	AA	45.1	14.5	66.2	33.8	11.0	38.0	62.0	54.0	52.6	51.2	49.7	36.0
2016 Comm of Labor	23.6	AA	60.5	14.0	84.0	16.0	11.3	52.0	48.0	69.7	68.1	66.5	64.8	not polarized
2016 Treasurer	23.6	AA	59.1	14.6	71.1	28.9	10.5	53.2	46.8	63.6	62.7	61.8	60.9	not polarized
2014														
none														
2012														
2012 Lt Governor	23.6	AA	58.2	16.1	75.3	24.7	9.3	50.8	49.2	66.3	65.2	63.9	62.6	not polarized
2012 Comm of Labor	23.6	AA	38.9	15.1	51.6	48.4	8.9	33.5	66.5	44.9	44.0	43.1	42.1	85.9

Table 11

House Grouping: Franklin and Nash	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 25	40.7	AA	51.5	35.4	98.1	1.9	64.2	34.2	65.8	56.9	54.1	51.4	48.8	37.3
2016														
2016 Lt Governor	33.0	AA	46.5	51.3	99.9	0.1	70.5	24.0	76.0	56.0	52.3	48.8	45.4	41.7
2016 Treasurer	33.0	AA	48.7	53.5	100.0	0.0	68.3	26.8	73.2	59.0	55.4	51.9	48.5	37.2
State House 7	50.7	AA	67.8	52.9	99.5	0.5	68.3	44.8	55.2	68.7	66.0	63.4	60.9	11.9
State House 25	16.1	AA	31.9	53.8	84.6	15.4	62.8	20.8	79.2	50.2	47.1	44.0	40.9	49.6
2014														
none														
2012														
2012 President	33.0	AA	48.6	53.8	99.1	0.9	64.4	26.6	73.4	59.6	56.0	52.5	49.1	36.3
2012 Lt Governor	33.0	AA	51.2	52.5	99.1	0.9	62.8	30.3	69.7	61.6	58.2	54.9	51.7	32.4
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	33.0	AA	66.5	17.4	94.9	5.1	8.6	35.7	64.3	75.3	72.6	69.7	66.6	13.6
2016 Attn General	33.0	AA	39.5	17.9	63.1	36.9	8.1	29.5	70.5	52.6	51.1	49.5	47.8	41.5
2016 Comm of Labor	33.0	W	74.8	17.0	72.5	27.5	8.8	75.7	24.3	73.6	73.7	73.9	74.1	not polarized
2016 Treasurer	33.0	AA	65.1	17.7	88.0	12.0	8.7	37.4	62.6	71.3	69.0	66.5	63.9	14.0
2014														
none														
2012														
2012 Lt Governor	33.0	AA	58.2	16.8	68.3	31.7	10.3	50.8	49.2	61.6	60.8	59.9	59.0	not polarized
2012 Comm of Labor	33.0	AA	36.2	16.0	50.8	49.2	9.7	19.1	80.9	38.8	37.3	35.7	34.0	95.9

Table 12A

House Grouping: Guildford	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 58	42.7	AA	76.8	38.0	99.4	0.6	47.8	62.8	37.2	79.0	77.2	75.5	73.8	not polarized
State House 60	40.1	AA	69.0	35.2	98.9	1.1	52.5	57.1	42.9	73.9	71.9	70.0	68.2	not polarized
State Senate 28	43.6	AA	75.3	34.9	99.2	0.8	58.0	64.5	35.5	77.5	75.9	74.4	73.0	not polarized
2016														
2016 Lt Governor	32.1	AA	56.6	44.1	98.7	1.3	78.4	42.8	57.2	62.9	60.4	58.0	55.8	20.8
2016 Treasurer	32.1	AA	57.6	42.1	99.3	0.7	76.9	44.9	55.1	64.1	61.7	59.4	57.3	15.9
State Senate 28	56.5	AA	83.9	59.7	99.4	0.6	59.7	62.3	37.7	80.9	79.0	77.1	75.3	not polarized
2014														
State House 61	15.3	AA	32.8	38.1	98.6	1.4	63.8	24.3	75.7	52.1	48.7	45.5	42.4	47.0
2012														
2012 President	32.1	AA	57.8	49.6	99.9	0.1	76.4	43.7	56.3	65.8	63.2	60.7	58.3	16.3
2012 Lt Governor	32.1	AA	58.0	47.3	100.0	0.0	74.0	44.3	55.7	66.0	63.4	60.9	58.6	15.1

Table 12B

House Grouping: Guilford	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 58	42.7	AA	80.2	10.0	98.4	1.6	7.3	65.2	34.8	84.4	82.7	81.0	79.3	not polarized
2016														
2016 Lt Governor	32.1	AA	57.9	19.2	71.8	28.2	13.5	49.2	50.8	62.5	61.4	60.2	59.0	not polarized
2016 Attn General	32.1	AA	54.6	18.9	86.5	13.5	13.2	38.3	61.7	66.7	64.3	61.8	59.3	18.3
2016 Comm of Labor	32.1	AA	61.3	18.9	78.5	21.5	12.3	49.6	50.4	67.1	65.7	64.2	62.7	0.9
2016 Treasurer	32.1	AA	54.3	18.4	63.7	36.3	12.5	46.2	53.8	56.6	55.8	54.9	53.9	15.9
State House 58	51.1	AA	71.5	15.3	89.4	10.6	10.4	52.3	47.7	74.4	72.6	70.7	68.7	not polarized
2014														
State House 58	51.1	AA	42.6	12.2	59.4	40.6	7.2	16.8	83.2	43.6	41.5	39.4	37.1	67.6
State House 60	51.4	AA	54.2	9.9	66.5	33.5	4.9	32.7	67.3	55.3	53.8	52.1	50.3	34.2
State Senate 28	56.5	AA	59.4	12.1	71.4	34.1	6.0	34.7	65.3	57.1	55.6	54.0	52.3	28.9
2012														
2012 Lt Governor	32.1	AA	58.6	14.6	66.5	33.5	12.4	54.3	45.7	60.9	60.3	59.7	59.0	not polarized
2012 Comm of Labor	32.1	AA	39.2	13.7	52.6	47.4	10.6	30.9	69.1	43.1	42.1	40.9	39.8	85.0

Table 13

House Grouping: Lenoir and Pitt	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 8	44.9	AA	64.7	26.7	98.3	1.7	56.2	46.8	53.2	63.4	61.2	59.2	57.3	12.2
State House 9	20.5	AA	40.0	20.1	86.1	13.9	57.6	33.1	66.9	46.8	44.9	43.1	41.5	57.3
State House 12	37.4	AA	43.9	27.0	96.6	3.4	45.8	24.9	75.1	51.5	48.2	45.1	42.2	47.7
2016														
2016 Lt Governor	34.2	AA	50.2	39.4	97.9	2.1	65.1	42.8	57.2	63.6	61.0	58.6	56.3	19.9
2016 Treasurer	34.2	AA	52.6	38.8	98.6	1.4	63.2	44.9	55.1	65.3	62.9	60.5	58.2	14.6
2014														
none														
2012														
2012 President	34.2	AA	52.3	52.3	99.0	1.0	60.6	30.7	69.3	62.3	59.0	55.6	52.4	31.3
2012 Lt Governor	34.2	AA	52.9	51.6	98.6	1.4	59.3	32.0	68.0	63.0	59.7	56.5	53.2	29.9
Democratic primaries														
2018														
State House 8	44.9	AA	50.0	7.4	55.3	44.7	4.4	43.0	57.0	50.7	50.1	49.5	48.8	44.0
2016														
2016 Lt Governor	34.2	AA	53.6	17.2	73.7	26.3	7.8	34.2	65.8	61.4	59.6	57.7	55.6	23.2
2016 Attn General	34.2	AA	61.1	16.5	86.9	13.1	7.2	32.5	67.5	70.4	68.0	65.4	62.5	17.1
2016 Comm of Labor	34.2	W	46.5	16.7	55.6	44.4	7.7	38.0	62.0	50.0	49.3	48.4	47.5	49.7
2016 Treasurer	34.2	AA	54.6	16.5	53.6	46.4	7.2	52.7	47.3	53.3	53.3	53.2	53.2	not polarized
2014														
none														
2012														
2012 Lt Governor	34.2	AA	61.1	18.1	69.2	30.8	10.2	52.3	47.7	63.1	62.3	61.5	60.6	not polarized
2012 Comm of Labor	34.2	AA	29.9	18.0	35.2	64.8	9.5	26.1	73.9	32.1	31.6	31.2	30.7	no clear B-P cand

Table 14A

House Grouping: Mecklenburg	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 92	30.2	AA	70.0	26.4	98.3	1.7	65.5	63.2	36.8	73.3	71.9	70.6	69.5	not polarized
State House 99	49.5	AA	82.4	42.9	98.0	2.0	51.4	66.8	33.2	81.0	79.5	78.0	76.5	not polarized
State House 101	50.8	AA	78.7	34.5	98.5	1.5	62.4	61.3	38.7	74.5	72.9	71.3	69.8	not polarized
State House 104	6.2	AA	51.8	20.0	99.6	0.4	64.5	51.9	48.1	63.2	61.6	60.1	58.7	not polarized
State House 106	38.0	AA	80.6	28.1	99.0	1.0	55.8	72.6	27.4	81.4	80.3	79.2	78.2	not polarized
State Senate 40	38.9	AA	75.6	20.8	99.3	0.7	59.1	63.3	36.7	72.7	71.3	70.1	69.0	not polarized
2016														
2016 Lt Governor	30.2	AA	58.4	39.9	98.5	1.5	78.1	46.1	53.9	63.8	61.5	59.4	57.4	not polarized
2016 Treasurer	30.2	AA	58.4	42.2	99.0	1.0	74.6	47.9	52.1	66.4	64.1	61.9	59.8	7.0
State House 92	18.2	AA	54.4	39.8	96.1	3.9	56.6	45.2	54.8	66.2	63.8	61.4	59.2	12.9
State House 101	51.3	AA	76.0	50.7	99.2	0.8	69.1	53.6	46.4	72.9	70.7	68.6	66.5	not polarized
State House 105	9.5	AA	44.7	42.3	97.5	2.5	63.2	41.1	58.9	63.7	61.1	58.5	56.0	21.9
State Senate 38	52.5	AA	79.1	45.4	98.7	1.3	61.9	57.9	42.1	75.2	73.2	71.3	69.5	not polarized
State Senate 40	51.8	AA	82.5	53.8	98.5	1.5	42.6	56.1	43.9	79.8	77.6	75.5	73.3	not polarized
2014														
State House 92	18.2	AA	47.5	26.9	95.2	4.8	33.8	36.7	63.3	62.6	59.8	57.0	54.2	27.0
State House 106	51.1	AA	86.6	30.8	89.2	10.8	30.1	78.6	21.4	84.0	83.4	82.9	82.4	not polarized
State Senate 38	52.5	AA	79.7	31.6	99.2	0.8	35.2	60.4	39.6	78.8	76.8	74.9	73.0	not polarized
State Senate 41	13.2	AA	39.5	25.5	98.5	1.5	49.9	34.4	65.6	56.1	53.3	50.7	48.2	38.6
2012														
2012 President	30.2	AA	60.8	43.4	98.7	1.3	73.9	51.9	48.1	69.2	67.1	65.1	63.1	not polarized
2012 Lt Governor	30.2	AA	59.8	42.9	99.9	0.1	70.7	50.1	49.9	68.9	66.6	64.4	62.4	not polarized

Table 14B

House Grouping: Mecklenburg	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 99	49.5	AA	57.3	9.8	73.8	26.2	5.9	44.2	55.8	62.7	61.3	59.8	58.2	12.8
State House 101	50.8	AA	50.0	7.8	60.2	39.8	6.5	39.4	61.5	50.5	49.5	48.4	47.3	47.4
State House 106	38.0	AA	88.9	9.4	91.3	8.7	7.5	85.2	14.8	88.6	88.3	88.0	87.7	not polarized
State Senate 38	48.5	O	51.9	12.1	60.3	39.7	5.4	32.6	67.4	51.8	50.5	49.2	47.7	43.0
2016														
2016 Lt Governor	30.2	AA	55.2	19.8	65.2	34.8	11.0	48.6	51.4	59.3	58.5	57.7	56.8	not polarized
2016 Attn General	30.2	AA	55.7	19.6	86.6	13.4	10.9	31.8	68.2	67.0	64.4	61.7	58.8	21.7
2016 Comm of Labor	30.2	AA	57.0	16.9	75.7	24.3	11.2	46.8	53.2	64.2	62.8	61.3	59.8	7.6
2016 Treasurer	30.2	AA	52.7	19.0	59.6	40.4	10.7	47.1	52.9	55.1	54.5	53.9	53.2	14.5
State House 101	51.3	AA	78.6	14.1	92.5	7.5	9.1	50.3	49.7	75.9	73.9	71.7	69.5	not polarized
State House 107	52.5	AA	90.1	26.0	93.4	6.6	10.5	85.7	14.3	91.2	90.9	90.5	90.1	not polarized
State Senate 38	52.5	AA	52.1	18.9	54.3	45.7	13.1	48.6	51.4	52.0	51.7	51.4	51.1	18.4
State Senate 40	51.8	AA	64.7	19.3	66.7	33.3	9.1	63.2	36.8	65.6	65.4	65.3	65.1	not polarized
2014														
State Senate 40	51.8	AA	41.9	10.1	48.5	51.5	6.1	27.5	72.5	40.6	39.6	38.5	37.4	no clear B-P cand
2012														
2012 Lt Governor	30.2	AA	67.6	11.7	61.5	38.5	9.2	70.3	29.7	65.4	65.8	66.3	66.7	not polarized
2012 Comm of Labor	30.2	AA	40.7	11.7	54.3	45.7	7.2	30.5	69.5	45.2	44.1	42.9	41.6	73.6

Table 15A

House Grouping: Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 33	44.2	AA	78.7	49.7	100.0	0.0	49.3	63.2	36.8	81.7	79.8	78.0	76.1	not polarized
State House 37	14.3	AA	49.9	30.4	99.2	0.8	67.3	46.7	53.3	63.0	60.9	58.9	57.0	12.9
State House 38	48.3	AA	81.9	31.5	99.1	0.9	65.4	69.4	30.6	79.1	77.8	76.6	75.5	not polarized
State Senate 14	38.9	AA	71.4	32.0	99.2	0.8	67.9	63.3	36.7	74.8	73.3	71.9	70.6	not polarized
2016														
2016 Lt Governor	20.7	AA	54.7	56.9	98.6	1.4	67.8	46.2	53.8	70.1	67.5	65.0	62.5	not polarized
2016 Treasurer	20.7	AA	56.1	61.1	99.2	0.8	65.3	48.3	51.7	72.9	70.4	67.9	65.4	3.6
State House 38	51.4	AA	84.8	42.1	96.9	3.1	50.9	73.8	26.2	84.3	83.1	82.0	80.9	not polarized
2014														
State House 33	51.4	AA	87.3	37.0	99.3	0.7	50.0	75.4	24.6	85.6	84.4	83.3	82.2	not polarized
State Senate 38	51.4	AA	79.9	43.9	99.1	0.9	43.2	66.5	33.5	82.9	81.3	79.7	78.0	not polarized
2012														
2012 President	20.7	AA	55.1	41.6	99.3	0.7	70.7	47.0	53.0	66.4	64.0	61.7	59.6	9.4
2012 Lt Governor	20.7	AA	55.3	39.8	99.7	0.3	68.7	47.3	52.7	66.5	64.2	61.9	59.8	8.6

Table 15B

House Grouping: Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 33	44.2	AA	60.2	11.7	61.8	38.2	8.4	58.9	41.1	60.6	60.4	60.3	60.1	not polarized
2016														
2016 Lt Governor	20.7	AA	60.3	22.4	82.2	17.8	17.8	51.4	48.6	68.6	67.0	65.5	63.8	not polarized
2016 Attn General	20.7	AA	35.0	22.0	60.4	39.6	17.8	28.4	71.6	46.1	44.5	42.9	41.2	62.7
2016 Comm of Labor	20.7	W	72.2	18.8	72.1	27.9	21.9	74.7	25.3	73.5	73.6	73.8	73.9	not polarized
2016 Treasurer	20.7	AA	63.2	19.9	89.2	10.8	20.7	52.9	47.1	70.7	68.9	67.1	65.3	not polarized
State House 33	51.4	AA	64.1	18.5	80.6	19.4	17.7	54.3	45.7	67.7	66.4	65.1	63.8	not polarized
2014														
none														
2012														
2012 Lt Governor	20.7	AA	59.7	19.4	68.0	32.0	16.6	53.7	46.3	61.4	60.7	60.0	59.2	not polarized
2012 Comm of Labor	20.7	AA	37.9	19.2	54.1	45.9	13.6	31.3	68.7	44.6	43.5	42.4	41.1	76.4

Table 16A

Senate Grouping: Alamance, Guilford, and Randolph	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
					black votes			white votes						
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 64 (Alamance)	18.5	AA	42.2	24.5	96.7	3.3	55.7	38.2	61.8	56.1	53.7	51.5	49.4	36.5
State House 58 (Guilford)	42.7	AA	76.8	38.0	99.4	0.6	47.8	62.8	37.2	79.0	77.2	75.5	73.8	not polarized
State House 60 (Guilford)	40.1	AA	69.0	35.2	98.9	1.1	52.5	57.1	42.9	73.9	71.9	70.0	68.2	not polarized
State Senate 28 (Guilford)	43.6	AA	75.3	34.9	99.2	0.8	58.0	64.5	35.5	77.5	75.9	74.4	73.0	not polarized
insert														
2016														
2016 Lt Governor	24.8	AA	47.8	43.6	96.6	3.4	72.2	38.1	61.9	60.1	57.4	54.9	52.5	29.7
2016 Treasurer	24.8	AA	49.2	43.8	99.5	0.5	70.1	42.3	57.7	64.3	61.6	59.1	56.7	19.9
State Senate 28 (Guilford)	56.5	AA	83.9	59.7	99.4	0.6	59.7	62.3	37.7	80.9	79.0	77.1	75.3	not polarized
2014														
State House 61 (Guilford)	15.3	AA	32.8	38.1	98.6	1.4	63.8	24.3	75.7	52.1	48.7	45.5	42.4	47.0
2012														
2012 President	24.8	AA	49.8	45.0	99.2	0.8	67.8	40.0	60.0	63.6	60.8	58.2	55.6	23.4
2012 Lt Governor	24.8	AA	50.2	43.5	98.4	1.6	66.9	43.5	56.5	65.1	62.6	60.1	57.7	17.1

Table 16B

Senate Grouping: Alamance, Guilford, and Randolph	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 64 (Alamance)	18.5	AA	46.8	5.4	87.8	12.2	3.5	35.9	64.1	67.4	64.9	62.2	59.5	19.5
State House 58 (Guilford)	42.7	AA	80.2	10.0	98.4	1.6	7.3	65.2	34.8	84.4	82.7	81.0	79.3	not polarized
2016														
2016 Lt Governor	24.8	AA	56.0	21.2	74.6	25.4	11.2	47.0	53.0	65.1	63.8	62.4	60.9	not polarized
2016 Attn General	24.8	AA	53.1	20.9	87.9	12.1	10.9	38.5	61.5	71.0	68.7	66.2	63.6	13.7
2016 Comm of Labor	24.8	W	58.8	20.6	79.5	20.5	10.3	49.5	50.5	69.5	68.1	66.6	65.1	0.8
2016 Treasurer	24.8	AA	54.2	20.5	61.3	38.7	10.5	54.3	45.7	58.9	58.6	58.3	57.9	not polarized
State House 58 (Guilford)	51.1	AA	71.5	15.3	89.4	10.6	10.4	52.3	47.7	74.4	72.6	70.7	68.7	not polarized
2014														
State House 58 (Guilford)	51.1	AA	42.6	12.2	59.4	40.6	7.2	16.8	83.2	43.6	41.5	39.4	37.1	67.6
State House 60 (Guilford)	51.4	AA	54.2	9.9	66.5	33.5	4.9	32.7	67.3	55.3	53.8	52.1	50.3	34.2
State Senate 28 (Guilford)	56.5	AA	59.4	12.1	71.4	34.1	6.0	34.7	65.3	57.1	55.6	54.0	52.3	28.9
2012														
2012 Lt Governor	24.8	AA	56.7	16.9	66.7	33.3	9.8	52.1	47.9	61.3	60.6	59.9	59.1	not polarized
2012 Comm of Labor	24.8	AA	36.8	15.7	54.4	45.6	8.4	27.8	72.2	45.1	43.9	42.6	41.1	73.0

Table 17

Senate Grouping: Davie and Forsyth	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 71 (Forsyth)	36.6	AA	72.7	24.7	98.7	1.3	57.0	63.4	36.6	74.1	72.6	71.3	70.1	not polariized
State House 72 (Forsyth)	47.5	AA	79.1	31.8	99.6	0.4	49.4	69.6	30.4	81.3	79.9	78.6	77.3	not polariized
State Senate 32 (Forsyth)	39.2	AA	72.9	28.5	99.2	0.8	50.5	65.0	35.0	77.3	75.8	74.3	73.0	not polariized
2016														
2016 Lt Governor	23.8	AA	48.2	32.6	99.4	0.6	72.9	34.8	65.2	54.8	52.1	49.6	47.3	40.8
2016 Treasurer	23.8	AA	41.2	29.9	100.0	0.0	71.2	34.3	65.7	53.7	51.1	48.7	46.4	42.8
2014														
State House 71	45.5	AA	76.6	25.8	99.3	0.7	39.6	62.6	37.4	77.1	75.4	73.7	72.1	not polarized
2012														
2012 President	23.8	AA	50.5	47.8	99.3	0.7	69.8	40.6	59.4	64.5	61.7	59.0	56.4	21.8
2012 Lt Governor	23.8	AA	50.7	46.4	99.1	0.9	69.5	42.3	57.7	65.0	62.4	59.8	57.3	19.0
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	23.8	AA	55.6	20.0	79.9	20.1	11.4	45.2	54.8	67.3	65.7	63.9	62.1	not polarized, 1st choice same
2016 Attn General	23.8	AA	45.0	20.9	68.9	31.1	11.1	36.3	63.7	57.6	56.1	54.4	52.7	27.8
2016 Comm of Labor	23.8	AA	60.3	19.1	84.7	15.3	10.6	51.2	48.8	72.7	71.2	69.5	67.7	not polarized
2016 Treasurer	23.8	AA	59.1	20.5	70.5	29.5	10.6	53.6	46.4	64.7	64.0	63.1	62.2	not polarized
2014														
none														
2012														
2012 Lt Governor	23.8	AA	58.5	16.1	76.5	23.5	10.4	51.8	48.2	66.8	65.6	64.3	63.0	not polarized
2012 Comm of Labor	23.8	AA	39.3	15.1	47.9	52.1	8.9	35.8	64.2	43.4	42.8	42.2	41.6	no clear B-P cand

Table 18A

Senate Grouping: Duplin, Harnett, Johnsont, Lee, Nash, and Sampson	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 4 (Duplin)	22.6	AA	34.5	29.7	99.0	1.0	34.1	15.1	84.9	54.2	50.0	45.9	41.9	45.0
State House 25 (Nash)	40.7	AA	51.5	35.4	98.1	1.9	64.2	34.2	65.8	56.9	54.1	51.4	48.8	37.3
State Senate 10	24.1	AA	37.5	30.7	99.8	0.2	33.2	16.6	83.4	56.6	52.4	48.3	44.3	42.0
2016														
2016 Lt Governor	23.3	AA	38.7	55.9	99.8	0.2	60.1	21.1	78.9	59.0	55.1	51.2	47.4	38.4
2016 Treasurer	23.3	AA	41.5	54.8	99.8	0.2	58.4	29.7	70.3	63.6	60.1	56.7	53.2	30.3
State House 7 (Nash)	50.7	AA	67.8	52.9	99.5	0.5	68.3	44.8	55.2	68.7	66.0	63.4	60.9	11.9
State House 25 (Nash)	16.1	AA	31.9	53.8	84.6	15.4	62.8	20.8	79.2	50.2	47.1	44.0	40.9	49.6
2014														
none														
2012														
2012 President	23.3	AA	41.8	58.3	99.2	0.8	64.7	23.9	76.1	59.6	55.9	52.2	48.5	37.1
2012 Lt Governor	23.3	AA	44.8	57.1	99.1	0.9	63.6	28.4	71.6	61.8	58.3	54.9	51.4	32.9

Table 18B

Senate Grouping: Duplin, Harnett, Johnsont, Lee, Nash, and Sampson	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	23.3	AA	57.8	19.0	94.1	5.9	6.5	40.2	59.8	80.4	78.2	75.8	73.2	7.1
2016 Attn General	23.3	AA	49.3	18.9	64.5	35.5	7.0	42.3	57.7	58.5	57.6	56.6	55.5	16.4
2016 Comm of Labor	23.3	W	67.7	18.6	64.9	35.1	6.6	69.3	30.7	66.1	66.2	66.4	66.6	not polarized
2016 Treasurer	23.3	AA	60.1	18.8	82.7	17.3	6.6	48.4	51.6	73.8	72.4	70.9	69.2	1.7
2014														
none														
2012														
2012 Lt Governor	23.3	AA	51.3	24.9	56.4	43.6	7.9	56.2	43.8	56.4	56.3	56.3	56.3	not polarized
2012 Comm of Labor	23.3	AA	16.9	23.9	38.5	61.5	6.9	18.4	81.6	34.0	33.3	32.4	31.5	no clear B-P cand

Table 19A

Senate Grouping: Franklin and Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 33 (Wake)	44.2	AA	78.7	49.7	100.0	0.0	49.3	63.2	36.8	81.7	79.8	78.0	76.1	not polarized
State House 37 (Wake)	14.3	AA	49.9	30.4	99.2	0.8	67.3	46.7	53.3	63.0	60.9	58.9	57.0	12.9
State House 38 (Wake)	48.3	AA	81.9	31.5	99.1	0.9	65.4	69.4	30.6	79.1	77.8	76.6	75.5	not polarized
State Senate 14 (Wake)	38.9	AA	71.4	32.0	99.2	0.8	67.9	63.3	36.7	74.8	73.3	71.9	70.6	not polarized
2016														
2016 Lt Governor	21.1	AA	54.0	58.3	99.6	0.4	85.8	44.1	55.9	66.6	63.9	61.4	59.0	14.9
2016 Treasurer	21.1	AA	55.4	57.3	99.5	0.5	84.3	46.4	53.6	67.9	65.4	63.0	60.6	9.7
State House 7 (Franklin)	50.7	AA	67.8	52.9	99.5	0.5	68.3	44.8	55.2	68.7	66.0	63.4	60.9	11.9
State House 38 (Wake)	51.4	AA	84.8	42.1	96.9	3.1	50.9	73.8	26.2	84.3	83.1	82.0	80.9	not polarized
2014														
State House 33 (Wake)	51.4	AA	87.3	37.0	99.3	0.7	50.0	75.4	24.6	85.6	84.4	83.3	82.2	not polarized
State Senate 38 (Wake)	51.4	AA	79.9	43.9	99.1	0.9	43.2	66.5	33.5	82.9	81.3	79.7	78.0	not polarized
2012														
2012 President	21.1	AA	54.7	54.7	99.5	0.5	68.3	42.1	57.9	67.6	64.8	62.1	59.4	16.6
2012 Lt Governor	21.1	AA	54.9	53.6	99.3	0.7	67.1	44.0	56.0	68.6	65.9	63.2	60.6	13.2

Table 19B

Senate Grouping: Franklin and Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 33	44.2	AA	60.2	11.7	61.8	38.2	8.4	58.9	41.1	60.6	60.4	60.3	60.1	not polarized
2016														
2016 Lt Governor	21.1	AA	60.7	17.6	84.7	15.3	13.3	51.3	48.7	70.3	68.7	67.0	65.2	not polarized
2016 Attn General	21.1	AA	35.4	17.0	63.2	15.4	13.0	32.4	67.6	56.7	54.3	51.9	49.5	36.0
2016 Comm of Labor	21.1	W	72.2	17.0	68.6	31.4	11.6	74.7	25.3	71.1	71.4	71.7	72.0	not polarized
2016 Treasurer	21.1	AA	63.4	17.3	90.0	10.0	12.4	53.5	46.5	74.8	73.0	71.1	69.2	not polarized
State House 33	51.4	AA	64.1	18.5	80.6	19.4	17.7	54.3	45.7	67.7	66.4	65.1	63.8	not polarized
2014														
none														
2012														
2012 Lt Governor	21.1	AA	59.8	19.4	77.0	23.0	16.6	54.9	45.1	66.8	65.7	64.6	63.4	not polarized
2012 Comm of Labor	21.1	AA	37.7	19.2	56.1	43.9	13.6	31.3	68.7	45.8	44.6	43.3	42.0	68.5

Table 20

Forsyth County	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 71	36.6	AA	72.7	24.7	98.7	1.3	57.0	63.4	36.6	74.1	72.6	71.3	70.1	not polarized
State House 72	47.5	AA	79.1	31.8	99.6	0.4	49.4	69.6	30.4	81.3	79.9	78.6	77.3	not polarized
State Senate 32	39.2	AA	72.9	28.5	99.2	0.8	50.5	65.0	35.0	77.3	75.8	74.3	73.0	not polarized
2016														
2016 Lt Governor	25.9	AA	51.2	42.6	98.8	1.2	73.5	42.3	57.7	63.0	60.5	58.0	55.7	21.4
2016 Treasurer	25.9	AA	50.9	39.2	99.0	1.0	72.0	42.8	57.2	62.6	60.1	57.8	55.5	21.3
2014														
State House 71	45.5	AA	76.6	25.8	99.3	0.7	39.6	62.6	37.4	77.1	75.4	73.7	72.1	not polarized
2012														
2012 President	25.9	AA	53.2	44.5	99.8	0.2	70.2	43.6	56.4	65.4	62.8	60.3	57.9	16.9
2012 Lt Governor	25.9	AA	53.4	44.2	100.0	0.0	68.3	44.2	55.8	66.1	63.5	61.0	58.6	15.2
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	25.9	AA	56.1	19.5	79.5	20.5	12.5	45.6	54.4	66.3	64.6	62.9	61.1	8.7
2016 Attn General	25.9	AA	45.2	18.9	69.5	30.5	12.1	35.0	65.0	56.0	54.4	52.6	50.8	33.0
2016 Comm of Labor	25.9	AA	60.8	17.8	84.2	15.8	11.7	52.0	48.0	71.4	69.9	68.2	66.5	not polarized
2016 Treasurer	25.9	AA	59.6	18.9	69.4	30.6	11.7	54.4	45.6	63.7	62.9	62.2	61.4	not polarized
2014														
none														
2012														
2012 Lt Governor	25.9	AA	58.8	15.1	66.5	33.5	11.2	52.9	47.1	60.7	60.0	59.3	58.6	not polarized
2012 Comm of Labor	25.9	AA	39.7	14.2	49.4	50.6	9.5	35.5	64.5	43.8	43.1	42.4	41.7	106.6

Table 21

Pitt County	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 8	44.9	AA	64.7	26.7	98.3	1.7	56.2	46.8	53.2	63.4	61.2	59.2	57.3	12.2
State House 9	20.5	AA	40.0	20.1	86.1	13.9	57.6	33.1	66.9	46.8	44.9	43.1	41.5	57.3
2016														
2016 Lt Governor	32.4	AA	51.0	47.4	98.6	1.4	68.1	33.2	66.8	60.0	56.9	53.9	51.0	33.2
2016 Treasurer	32.4	AA	53.0	45.3	99.4	0.6	66.7	35.6	64.4	61.4	58.4	55.5	52.7	30.0
2014														
none														
2012														
2012 President	32.4	AA	53.2	54.8	99.2	0.8	64.1	34.6	65.4	64.4	61.2	58.1	55.0	26.8
2012 Lt Governor	32.4	AA	55.1	53.8	99.0	1.0	62.6	37.3	62.7	65.8	62.8	59.8	56.8	23.2
Democratic primaries														
2018														
State House 8	44.9	AA	50.0	7.4	55.3	44.7	4.4	43.0	57.0	50.7	50.1	49.5	48.8	44.0
2016														
2016 Lt Governor	32.4	AA	52.0	12.2	78.1	21.9	7.2	34.2	65.8	61.8	59.7	57.5	55.1	24.9
2016 Attn General	32.4	AA	61.4	11.7	71.9	28.1	6.8	22.5	77.5	53.7	51.4	48.9	46.3	42.2
2016 Comm of Labor	32.4	AA	50.5	11.5	62.3	37.7	6.7	41.9	58.1	54.8	53.8	52.8	51.7	27.7
2016 Treasurer	32.4	AA	51.3	11.4	55.1	44.9	6.9	43.1	56.9	50.6	50.0	49.4	48.7	45.0
2014														
none														
2012														
2012 Lt Governor	32.4	AA	60.5	13.7	57.2	42.8	7.4	60.9	39.1	58.5	58.7	58.9	59.1	not polarized
2012 Comm of Labor	32.4	AA	32.9	13.1	44.3	55.7	6.7	20.3	79.7	36.2	35.1	33.9	32.6	no clear B-P cand

Table 22A

Robeson County	percent NA VAP of jurisdiction	race of N-P candidate	actual vote for N-P candidate	turnout rate for office and percent vote for Native-preferred candidates						percent of vote B-P cand would have received if district was 50% NA VAP	percent of vote B-P cand would have received if district was 45% NA VAP	percent of vote B-P cand would have received if district was 40% NA VAP	percent of vote B-P cand would have received if district was 35% NA VAP	percent NA VAP must exceed for N-P candidate to win
				Native American votes			non-Native American votes							
				votes cast for office	N-P	all others	votes cast for office	N-P	all others					
General elections														
2018														
State House 46	14.5	AA	36.7	12.4	51.9	48.1	35.9	39.5	60.5	42.7	42.2	41.8	41.4	94.1
State House 47	46.2	NA	58.9	16.7	79.3	20.7	30.8	38.5	61.5	52.8	51.0	49.3	47.7	42.0
State Senate 13	26.5	W	61.5	17.5	53.6	46.4	35.2	57.8	42.2	56.4	56.6	56.8	56.9	not polarized
2016														
2016 Lt Governor	38.2	AA	51.6	24.0	51.7	48.3	46.6	50.7	49.3	51.0	51.0	51.0	50.9	not polarized
2016 Treasurer	38.2	AA	57.8	22.9	59.1	40.9	45.6	51.5	48.5	54.0	53.7	53.4	53.1	not polarized
2014														
none														
2012														
2012 President	38.2	AA	58.3	28.3	60.4	39.6	53.5	60.8	39.2	60.7	60.7	60.7	60.7	not polarized
2012 Lt Governor	38.2	AA	67.5	27.3	73.8	26.2	51.8	66.1	33.9	68.8	68.4	68.1	67.8	not polarized

Table 22B

Robeson County	percent NA VAP of jurisdiction	race of N-P candidate	actual vote for N-P candidate	turnout rate for office and percent vote for Native-preferred candidates						percent of vote B-P cand would have received if district was 50% NA VAP	percent of vote B-P cand would have received if district was 45% NA VAP	percent of vote B-P cand would have received if district was 40% NA VAP	percent of vote B-P cand would have received if district was 35% NA VAP	percent NA VAP must exceed for N-P candidate to win
				Native American votes			non-Native American votes							
				votes cast for office	N-P	all others	votes cast for office	N-P	all others					
Democratic primaries														
2018														
State Senate 13	26.5	NA	33.1	11.2	52.3	47.7	9.0	22.7	77.3	39.1	37.6	36.1	34.6	90.5
2016														
2016 Lt Governor	38.2	W	22.3	8.5	31.6	68.4	9.9	17.0	83.0	23.7	23.0	22.3	21.6	no clear N-P cand
2016 Attn General	38.2	AA	62.5	8.4	65.2	34.8	10.5	59.3	40.7	61.9	61.6	61.4	61.1	not polarized
2016 Comm of Labor	38.2	W	65.2	8.4	61.3	38.7	9.7	69.1	30.9	65.5	65.9	66.2	66.6	not polarized
2016 Treasurer	38.2	AA	67.1	8.9	72.5	27.5	10.1	59.1	40.9	65.4	64.7	64.1	63.4	not polarized
State House 47	51.0	NA	58.4	11.8	52.2	47.8	9.0	62.7	37.3	56.7	57.3	57.8	58.4	not polarized
2014														
State Senate 13	26.5	W	47.3	12.6	42.7	57.3	17.1	46.1	53.9	44.7	44.8	45.0	45.1	not polarized
2012														
2012 Lt Governor	38.2	AA	52.3	16.2	58.1	41.9	17.3	48.7	51.3	53.2	52.8	52.3	51.9	14.6
2012 Comm of Labor	38.2	W	54.4	16.4	88.0	12.0	16.1	39.4	60.6	63.9	61.5	59.1	56.6	21.5

Certification

I certify that the statements and opinions provided in this report are true and accurate to the best of my knowledge, information, and belief.

Lisa Handley

Lisa Handley, Ph.D.

9/17/2019

Date

Lisa R. Handley

CURRICULUM VITAE

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Professional Experience

Dr. Handley has over thirty years of experience in the areas of redistricting and voting rights, both as a practitioner and an academician, and is recognized nationally (as well as internationally) as an expert on these subjects. She has advised numerous jurisdictions and other clients on redistricting and has served as an expert in dozens of redistricting and voting rights court cases. Her clients have included the U.S. Department of Justice and scores of state and local jurisdictions, as well as redistricting commissions and civil rights organizations. Internationally, Dr. Handley has provided electoral assistance in more than a dozen countries, serving as a consultant on issues of democratic governance – including voting rights, electoral system design and electoral boundary delimitation (redistricting) – for the United Nations, the United Nations Development Fund (UNDP), IFES, and International IDEA. In addition, Dr. Handley served as Chairman of the Electoral Boundaries Commission in the Cayman Islands.

Dr. Handley has been actively involved in research, writing and teaching on the subjects of voting rights and redistricting. She has written a book, Minority Representation and the Quest for Voting Equality (Cambridge University Press, 1992) and numerous articles, as well as edited a volume (Redistricting in Comparative Perspective, Oxford University Press, 2008) on these subjects. She has taught political science and methodology courses at several universities, most recently George Washington University. Dr. Handley is a Visiting Research Academic at Oxford Brookes University in the United Kingdom.

Dr. Handley is the President of Frontier International Consulting, a consulting firm that specializes in providing electoral assistance in transitional and post-conflict democracies. She also works as an independent election consultant for such international organizations as the United Nations.

Education

Ph.D. The George Washington University, Political Science, 1991

Present Employment

President, Frontier International Electoral Consulting LLC (since co-founding company in September of 1998).

Senior International Consultant, provides electoral assistance to such international clients as the UN, UNDP and IFES on electoral district delimitation, electoral system design and minority voting rights.

U.S. Clients since 2000

American Civil Liberties Union (expert testimony in Ohio partisan gerrymander challenge and challenge to Commerce Department inclusion of citizenship question on 2020 census form)

Lawyers Committee for Civil Rights Under Law (expert testimony in challenges to statewide judicial elections in Texas and Alabama)

US Department of Justice (expert witness testimony in several Section 2 and Section 5 cases)

Alaska: Alaska Redistricting Board (redistricting consultation, expert witness testimony)

Arizona: Arizona Independent Redistricting Board (redistricting consultation, expert witness)

Arkansas: expert witness for Plaintiffs in Jeffers v. Beebe

Colorado: Colorado Redistricting Board (redistricting consultation)

Connecticut: State Senate and State House of Representatives (redistricting consultation)

Florida: State Senate (redistricting consultation)

Kansas: State Senate and House Legislative Services (redistricting consultation)

Louisiana: Louisiana Legislative Black Caucus (expert witness testimony)

Massachusetts: State Senate (redistricting consultation)

Maryland: Attorney General (redistricting consultation, expert witness testimony)

Miami-Dade County, Florida: County Attorney (redistricting consultation)

Nassau County, New York: Redistricting Commission (redistricting consulting)

New Mexico: State House (redistricting consultation, expert witness testimony)

New York: State Assembly (redistricting consultation)

New York City: Redistricting Commission and Charter Commission (redistricting consultation and Section 5 submission assistance)

New York State Court: Expert to the Special Master (drew congressional lines for state court)

Ohio: State Democratic Party (redistricting litigation support, expert witness testimony)

Pennsylvania: Senate Democratic Caucus (redistricting consultation)

Rhode Island: State Senate and State House (litigation support, expert witness testimony)

Vermont: Secretary of State (redistricting consultation)

International Clients since 2000

United Nations

- Afghanistan – electoral system design and district delimitation expert
- Bangladesh (UNDP) – redistricting expert
- Sierra Leone (UNDP) – redistricting expert
- Liberia (UNMIL, UN peacekeeping mission) – redistricting expert
- Democratic Republic of the Congo (MONUC, UN peacekeeping mission) – election feasibility mission, electoral system design and redistricting expert
- Kenya (UN) – electoral system design and redistricting expert
- Haiti (UN) – election feasibility mission, electoral system design and redistricting expert
- Lead Writer on the topic of boundary delimitation (redistricting) for ACE (Administration and Cost of Elections Project)

International Foundation for Election Systems (IFES)

- Afghanistan – district delimitation expert
- Sudan – redistricting expert
- Kosovo – electoral system design and redistricting expert
- Nigeria – redistricting expert
- Nepal – redistricting expert
- Georgia – electoral system design and district delimitation expert
- Yemen – redistricting expert
- Lebanon – electoral system design and redistricting expert
- Myanmar – electoral system design and redistricting expert
- Ukraine – electoral system design and redistricting expert
- Pakistan – consultant for developing redistricting software
- Principal consultant for the Delimitation Equity Project – conducted research, wrote reference manual and developed training curriculum
- Writer on electoral boundary delimitation (redistricting), Elections Standards Project
- Training – developed training curriculum and conducted training workshops on electoral boundary delimitation (redistricting) in Azerbaijan and Jamaica

International Institute for Democracy and Electoral Assistance (International IDEA):

- Consultant on electoral dispute resolution systems
- Technology consultant on use of GIS for electoral district delimitation
- Training – developed training material and conducted training workshop on electoral boundary delimitation (redistricting) for African election officials (Mauritius)
- Curriculum development – boundary delimitation curriculum for the BRIDGE Project
- Project coordinator for the ACE project

Other international clients have included The Cayman Islands; the Australian Election Commission; the Boundary Commission of British Columbia, Canada; and the Global Justice Project for Iraq.

Previous Employment

Project Coordinator and Lead Writer on Boundary Delimitation, Administration and Cost of Elections (ACE) Project. As Project Coordinator (1998 – 2000) of the ACE Project, Dr. Handley served as a liaison between the three partner international organizations – the United Nations, the International Foundation for Election Systems and International IDEA – and was responsible for the overall project management of ACE, a web-based global encyclopedia of election administration. She also served as Lead Writer on Boundary Delimitation for ACE.

Research Director and Statistical Analyst, Election Data Services, Inc. (1984 to 1998). Election Data Services (E.D.S.) is a Washington D.C. political consulting firm specialising in election administration. Dr. Handley's work at E.D.S. focused on providing redistricting and voting rights consulting and litigation support to scores of state and local jurisdictions.

Adjunct Professor (1986 to 1998). Dr. Handley has taught political science and methodology courses (both at the graduate and undergraduate level) at George Washington University, the University of Virginia, and the University of California at Irvine. She has served as a guest lecture at Harvard, Princeton, Georgetown, American University, George Mason University and Oxford Brookes University in the UK.

Grants

National Science Foundation Grant (2000-2001): Co-investigator (with Bernard Grofman) on a comparative redistricting project, which included hosting an international conference on "Redistricting in a Comparative Perspective" and producing an edited volume based on the papers presented at the conference.

Publications

Books*:*

Does Torture Prevention Work? Liverpool University Press, 2016 (served as editor and author, with Richard Carver)

Comparative Redistricting in Perspective, Oxford University Press, 2008 (first editor, with Bernard Grofman).

Delimitation Equity Project: Resource Guide, Center for Transitional and Post-Conflict Governance at IFES and USAID publication, 2006 (lead author).

Minority Representation and the Quest for Voting Equality, Cambridge University Press, 1992 (with Bernard Grofman and Richard Niemi).

***Academic Articles**:*

"Minority Success in Non-Majority Minority Districts: Finding the 'Sweet Spot'," Journal of Race, Ethnicity and Politics, forthcoming (with David Lublin, Thomas Brunell and Bernard Grofman).

"Has the Voting Rights Act Outlived its Usefulness: In a Word, "No," Legislative Studies Quarterly, volume 34 (4), November 2009 (with David Lublin, Thomas Brunell and Bernard Grofman).

"Delimitation Consulting in the US and Elsewhere," Zeitschrift für Politikberatung, volume 1 (3/4), 2008 (with Peter Schrott).

"Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," North Carolina Law Review, volume 79 (5), June 2001 (with Bernard Grofman and David Lublin).

"A Guide to 2000 Redistricting Tools and Technology" in The Real Y2K Problem: Census 2000 Data and Redistricting Technology, edited by Nathaniel Persily, New York: Brennan Center, 2000.

"1990s Issues in Voting Rights," Mississippi Law Journal, 65 (2), Winter 1995 (with Bernard Grofman).

"Minority Turnout and the Creation of Majority-Minority Districts," American Politics Quarterly, 23 (2), April 1995 (with Kimball Brace, Richard Niemi and Harold Stanley).

"Identifying and Remedying Racial Gerrymandering," Journal of Law and Politics, 8 (2), Winter 1992 (with Bernard Grofman).

"The Impact of the Voting Rights Act on Minority Representation in Southern State Legislatures," Legislative Studies Quarterly, 16 (1), February 1991 (with Bernard Grofman).

"Minority Population Proportion and Black and Hispanic Congressional Success in the 1970s and 1980s," American Politics Quarterly, 17 (4), October 1989 (with Bernard Grofman).

"Black Representation: Making Sense of Electoral Geography at Different Levels of Government," Legislative Studies Quarterly, 14 (2), May 1989 (with Bernard Grofman).

"Minority Voting Equality: The 65 Percent Rule in Theory and Practice," Law and Policy, 10 (1), January 1988 (with Kimball Brace, Bernard Grofman and Richard Niemi).

"Does Redistricting Aimed to Help Blacks Necessarily Help Republicans?" Journal of Politics, 49 (1), February 1987 (with Kimball Brace and Bernard Grofman).

***Chapters in Edited Volumes**:*

"Redistricting" in Oxford Handbook of Electoral Systems, Erik Herron Robert Pekkanen and Matthew Shugart (eds), Oxford: Oxford University Press, 2018.

"Role of the Courts in the Electoral Boundary Delimitation Process," in International Election Remedies, John Hardin Young (ed.), Chicago: American Bar Association Press, 2017.

"One Person, One Vote, Different Values: Comparing Delimitation Practices in India, Canada, the United Kingdom, and the United States," in Fixing Electoral Boundaries in India, edited by Mohd. Sanjeer Alam and K.C. Sivaramakrishman, New Delhi: Oxford University Press, 2015.

"Delimiting Electoral Boundaries in Post-Conflict Settings," in Comparative Redistricting in Perspective, edited by Lisa Handley and Bernard Grofman, Oxford: Oxford University Press, 2008.

"A Comparative Survey of Structures and Criteria for Boundary Delimitation," in Comparative Redistricting in Perspective, edited by Lisa Handley and Bernard Grofman, Oxford: Oxford University Press, 2008.

"Drawing Effective Minority Districts: A Conceptual Model," in Voting Rights and Minority Representation, edited by David Bositis, published by the Joint Center for Political and Economic Studies, Washington DC, and University Press of America, New York, 2006.

"Electing Minority-Preferred Candidates to Legislative Office: The Relationship Between Minority Percentages in Districts and the Election of Minority-Preferred Candidates," in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman and Wayne Arden).

"Estimating the Impact of Voting-Rights-Related Districting on Democratic Strength in the U.S. House of Representatives," in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman).

"Voting Rights in the 1990s: An Overview," in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman and Wayne Arden).

"Racial Context, the 1968 Wallace Vote and Southern Presidential Dealignment: Evidence from North Carolina and Elsewhere," in Spatial and Contextual Models in Political Research, edited by Munroe Eagles; Taylor and Francis Publishing Co., 1995 (with Bernard Grofman).

"The Impact of the Voting Rights Act on Minority Representation: Black Officeholding in Southern State Legislatures and Congressional Delegations," in The Quiet Revolution: The Impact of the Voting Rights Act in the South, 1965-1990, eds. Chandler Davidson and Bernard Grofman, Princeton University Press, 1994 (with Bernard Grofman).

"Preconditions for Black and Hispanic Congressional Success," in United States Electoral Systems: Their Impact on Women and Minorities, eds. Wilma Rule and Joseph Zimmerman, Greenwood Press, 1992 (with Bernard Grofman).

***Electronic Publication**:*

"Boundary Delimitation" Topic Area for the Administration and Cost of Elections (ACE) Project, 1998. Published by the ACE Project on the ACE website (www.aceproject.org).

***Additional Writings of Note**:*

Amicus brief presented to the US Supreme Court in Gill v. Whitford, Brief of Political Science Professors as Amici Curiae, 2017 (one of more than a political scientists to sign brief)

Amicus brief presented to the US Supreme Court in Shelby County v. Holder, Brief of Historians and Social Scientists as Amici Curiae, 2013 (one of several dozen historians and social scientists to sign brief)

Amicus brief presented to the US Supreme Court in Bartlett v. Strickland, 2008 (with Nathaniel Persily, Bernard Grofman, Bruce Cain, and Theodore Arrington).

Court Cases since 2015

Ohio Philip Randolph Institute v. Larry Householder (2019) – partisan gerrymander challenge to Ohio congressional districts

State of New York v. U.S. Department of Commerce/ New York Immigration Coalition v. U.S. Department of Commerce (2018-2019) – challenge to inclusion of citizenship question on 2020 census form

U.S. v. City of Eastpointe (ongoing) – minority vote dilution challenge to City of Eastpointe, Michigan, at-large city council election system

Alabama NAACP v. State of Alabama (ongoing) – minority vote dilution challenge to Alabama statewide judicial election system

Lopez v. Abbott (2017-2018) – minority vote dilution challenge to Texas statewide judicial election system

Personhaballah v. Alcorn (2016-17) – racial gerrymander challenge to Virginia congressional districts

Exhibit 2

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WAKE CO., C.S.C.

STATE OF NORTH CAROLINA WAKE COUNTY	IN THE GENERAL COURT OF JUSTICE SUPERIOR COURT DIVISION 18 CVS 014001
COMMON CAUSE, *et al.* *Plaintiffs,* v. Representative DAVID R. LEWIS, in his official capacity as Senior Chairman of the House Select Committee on Redistricting, et al., *Defendants.*	ORDER SUPPLEMENTING COURT ORDER OF OCTOBER 28, 2019 WITH FINDINGS AND CONCLUSIONS REGARDING COMPLIANCE OF REMEDIAL MAPS WITH FEDERAL VOTING RIGHTS ACT

THIS MATTER is before the Court following the Court's September 3, 2019, entry of Judgment wherein the Court declared the 2017 House and Senate plans unconstitutional and permanently enjoined Legislative Defendants and State Defendants, and their respective agents, officers, and employees, from preparing for or administering the 2020 primary and general elections for House and Senate districts in certain county groupings. The Court concluded its review of the General Assembly's enacted Remedial Maps for the House and Senate legislative districts for the 2020 election, and approved the enacted Remedial Maps by Order entered on October 28, 2019.[1]

As detailed in this Court's September 3, 2019, Judgment, the enacted Remedial Maps were required to comply with the Voting Rights Act ("VRA") and other federal requirements concerning the racial composition of districts. In the Court's October 28, 2019, Order approving the Remedial Maps, the Court addressed the Remedial Maps' compliance with the VRA as follows:

[1] On November 1, 2019, Plaintiffs filed a notice of appeal of the Court's Order approving the Remedial Maps. Plaintiffs sought appellate review of the portions of that Order approving the remedial House districts in Forsyth and Yadkin Counties and Pender, Columbus, and Robeson Counties. On November 15, 2019, Plaintiffs withdrew their appeal, returning jurisdiction over the matter to this Court.

> The Court further finds and concludes that the Remedial Maps comply with criterion (g) above, namely that the Remedial Maps comply with the Voting Rights Act and other federal requirements concerning the racial composition of districts. In the Court's Judgment of September 3, 2019, the Court stated that any parties "may submit briefing, which may attach expert analysis, on whether the *Gingles* factors are met in particular counties and county groupings and/or the minimum BVAP needed in particular counties and county groupings for African Americans to be able to elect candidates of their choice to the General Assembly." Plaintiffs submitted such a brief, including expert analysis of Jowei Chen, Ph.D. (report dated September 17, 2019) and Lisa Handley, Ph.D. (report dated September 17, 2019). No other parties submitted briefs or expert analysis on this issue within the time allowed by the Court. The Court finds the analysis performed by Dr. Chen and Dr. Handley to be credible and adopts their conclusions. A separate Order shall be issued by this Court detailing the findings of fact that support these conclusions.

Common Cause v. Lewis, 18-CVS-014001, slip. op. at 12 (N.C. Sup. Ct. Oct. 28, 2019). Plaintiffs also requested in their brief that the Court set forth written findings as to why the Remedial Maps ultimately adopted by the Court comply with the VRA with respect to some or all revised county groupings, and in particular with respect to the following groupings: Columbus-Pender-Robeson, Cumberland, Forsyth-Yadkin, Pitt-Lenoir, Guilford, and Mecklenburg in the House, and Davie-Forsyth, Franklin-Wake, and Mecklenburg in the Senate.

As forecasted in the Court's October 28, 2019, Order, and for the reasons set forth below, the Court now enters the following findings of fact and conclusions of law as to whether the enacted Remedial Maps comply with the VRA and other federal requirements concerning the racial composition of districts:

I. Legal Standards

For Section 2 of the VRA to require that a legislative district have particular racial demographics, "three threshold conditions" must be met. *Cooper v. Harris*, 137 S. Ct. 1455, 1472 (2017). "First, a 'minority group' must be 'sufficiently large and geographically

compact to constitute a majority' in some reasonably configured legislative district." *Id.* (quoting *Thornburg v. Gingles*, 478 U.S. 30, 50 (1986)). "Second, the minority group must be 'politically cohesive.'" *Id.* (quoting *Gingles*, 478 U.S. at 51). "And third, a district's white majority must vote sufficiently as a bloc to usually defeat the minority's preferred candidate." *Id.* (internal quotation marks omitted). Each of these conditions is a "prerequisite[]" to Section 2's application to any given district. *Id.* Where racial considerations predominate in the drawing of a district and the VRA is invoked as a justification for doing so, there must be a "strong basis in evidence" for believing that the three *Gingles* factors were present. *Covington v. North Carolina*, 316 F.R.D. 117, 167 (M.D.N.C. 2016), *aff'd*, 137 S. Ct. 2211 (2017) (internal quotation marks omitted).

The first and third *Gingles* factors are of particular significance for present purposes. As relevant here, the first factor requires that the minority group "could" comprise a numerical majority of the voting-age population in a "reasonably compact district[]" in the relevant county grouping. *Bartlett v. Strickland*, 556 U.S. 1, 7-8 (2009) (plurality op.); *Abrams v. Johnson*, 521 U.S. 74, 91 (1997). It is not the case that "whenever a legislature *can* draw a majority-minority district, it *must* do so" under the VRA, as a "majority-minority district would not be required" in "areas with substantial crossover voting." *Cooper*, 137 S. Ct. at 1472 (internal quotation marks and citation omitted). But for purposes of the first *Gingles* factor, it must be numerically possible that the minority group could theoretically constitute a majority of a reasonably compact district in the relevant geographic area. *See id.*

To assess whether the first *Gingles* factor is met in specific county groupings, Plaintiffs' expert Dr. Jowei Chen investigated whether it is possible to create a district (or in some cases, two or three districts) in the relevant county grouping that is majority-

minority while adhering to equal population requirements. Dr. Chen did not apply the county traversal restriction in conducting this analysis. Instead, he tested whether it would be possible to create a majority-minority district within the grouping while adhering to equal population requirements, but without regard to county traversals or splitting municipalities or VTDs. Dr. Chen also confirmed that, with one exception in the Franklin-Nash grouping in the House, his findings are the same regardless of whether he uses Citizen Voting Age Population (CVAP) data from the most recent American Community Survey or total Voting Age Population (VAP) statistics from the 2010 Decennial Census. *Id.* at 3; *see Pope v. Cty. of Albany*, 687 F.3d 565, 574 n.6 (2d Cir. 2012).

With respect to the third *Gingles* factor, the test is not whether there is some level of racially polarized voting, but rather whether there is "'legally significant racially polarized voting,' which occurs when the 'majority group votes sufficiently as a bloc to enable it . . . usually to defeat the minority's preferred candidate.'" *Covington*, 316 F.R.D. at 170 (quoting *Gingles*, 478 U.S. at 51, 55-56); *see also Gingles*, 478 U.S. at 56 ("[I]n general, 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."). Because the existence and degree of racially polarized voting will "vary" from county to county, this factor requires a localized, "district-specific assessment" of whether whites vote sufficiently as a bloc "usually to defeat the minority's preferred candidate." *Covington*, 316 F.R.D. at 170-74 (internal quotation marks omitted). The need for such localized analysis is particularly acute in North Carolina because, as demonstrated below and in the accompanying expert report of Dr. Lisa Handley, the existence and extent of white bloc voting varies widely across different county groupings.

There is no bright-line rule for the level of white bloc voting that is necessary for the third *Gingles* fact to be met, but prior cases provide guidance. In particular, two recent North Carolina cases—*Cooper v. Harris*, 137 S. Ct. 1455 (2017), and *Covington v. North Carolina*, 316 F.R.D. 117 (M.D.N.C. 2016), *aff'd*, 137 S. Ct. 2211 (2017)—offer guidance on circumstances where the third *Gingles* factor is not met:

- In *Cooper*, the U.S. Supreme Court held that there was not legally significant racially polarized voting in North Carolina's former Congressional District 1. The Court explained that, in the 20 years prior to the relevant plan's adoption, "the district's BVAP usually hovered between 46% and 48%," and yet "[i]n the closest election during that period, African–Americans' candidate of choice received 59% of the total vote; in other years, the share of the vote garnered by those candidates rose to as much as 70%." 137 S. Ct. at 1470.

- In *Covington*, the district court held that the defendants had not presented "conclusive evidence of the third *Gingles* factor" given that, in most of the elections that the defendants' expert analyzed, "a majority of non-African-American voters preferred the African-American voters' candidate of choice." 316 F.R.D. at 170. The *Covington* case involved state legislative districts in many of the same counties at issue in the remedial process of the instant case, including districts in Cumberland, Forsyth, Guilford, Wake, and Mecklenburg Counties.

In contrast, the following are examples of cases where courts have found that the third *Gingles* factor is met:

- In *Old Person v. Cooney*, 230 F.3d 1113, 1127 (9th Cir. 2000), the Ninth Circuit held that the third *Gingles* factor was satisfied where white candidates defeated Indian candidates "in 86% of the contests in the four districts challenged on appeal."

- In *United States v. Blaine County, Montana*, 363 F.3d 897, 911 (9th Cir. 2004), the Ninth Circuit affirmed the trial court's finding of legally significant racially polarized voting where, "[i]n five out of seven county-wide elections between an American Indian candidate and white candidate, the American Indian candidate lost despite receiving strong American Indian support."

- In *Rodriguez v. Pataki*, 308 F. Supp. 2d 346, 425-26 (S.D.N.Y.), *aff'd*, 543 U.S. 997 (2004), the district court found that the third *Gingles* factor was met where "the Hispanic-preferred candidate received between (an estimated) 27.1% and 39.7% of the white vote in each [endogenous] election; and each Hispanic-preferred candidate lost to the white-preferred candidate."

- In *Flores v. Town of Islip*, 382 F. Supp. 3d 197, 231-32 (E.D.N.Y. 2019), the district court held that there was legally significant polarized voting where white crossover voting ranged from 23.8% to 39% across relevant elections.

As relevant to the third *Gingles* factor, Plaintiffs' expert Dr. Handley analyzed the extent of racially polarized voting in specific county groupings using Ecological Inference (EI) modeling. Specifically, Dr. Handley ran EI analysis on state legislative and statewide elections that had an African American candidate and occurred within one or more of the counties in the relevant grouping.

II. House County Groupings

a. Alamance

The Court finds the first *Gingles* factor is not met in this grouping. Dr. Chen finds it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 12. Dr. Chen finds that the maximum African American CVAP possible for a non-contiguous district in this county while adhering to equal population requirements is 35.83%. *Id.*

While the first *Gingles* factor is not met, it does appear that there is racial bloc voting in this grouping. For Alamance County, Dr. Handley finds that over 96% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between 31.2% and 38.2% in these general elections. Handley Report at 14 (Table 3).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Alamance					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 64	18.5%	Lynch	Lost	42.2%
2016	Lt. Governor	18.8%	Coleman	Lost	41.8%
2016	Treasurer	18.8%	Blue III	Lost	43.2%
2012	House District 64	18.5%	McAdoo	Lost	41.0%
2012	President	18.8%	Obama	Lost	43.1%
2012	Lt. Governor	18.8%	Coleman	Lost	43.3%
Primary Elections					
2018	House District 64	18.5%	Lynch	Lost	46.8%
2016	Lt. Governor	18.8%	Coleman	Won	52.3%*
2016	Treasurer	18.8%	Blue III	Won	57.4%
2016	Attorney General	18.8%	Williams	Won	51.1%
2016	Commissioner of Labor	18.8%	Ferguson	Won	50.3%
2012	Commissioner of Labor	18.8%	Foster	Lost	33.5%*

*Asterisks indicate that the relevant Democratic primary had more than two candidates.

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 31.7% to 37.6%. Handley Report at 14 (Table 3). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 34.4%. *Id.*

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley, and finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

b. Anson-Union

The Court finds the first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which

African Americans could constitute a majority. Chen Report at 13. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 37.63%. *Id.*

While the first *Gingles* factor is not met, there is racial bloc voting in this grouping. Dr. Handley finds that over 98% of African Americans have supported the same candidates in all general elections studied, and white crossover voting has been between just 23.1% and 32.0% in these general elections. Handley Report at 14 (Table 4).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Anson-Union					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2016	Lt. Governor	16.5%	Coleman	Lost	33.1%
2016	Treasurer	16.5%	Blue III	Lost	34.6%
2012	President	16.5%	Obama	Lost	37.7%
2012	Lt. Governor	16.5%	Coleman	Lost	37.8%
Primary Elections					
2016	Lt. Governor	16.5%	Coleman	Won	40.8%*
2016	Treasurer	16.5%	Blue III	Won	56.5%
2016	Attorney General	16.5%	Williams	Won	58.3%
2016	Commissioner of Labor	16.5%	Ferguson	Won	55.3%
2012	Commissioner of Labor	16.5%	Richardson	Lost	37.2%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 38.1% to 45.7%. Handley Report at 14 (Table 4). Across the general elections she

studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 42.2%. *See id.*

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley, and finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

c. Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly Grouping

The Court finds the first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 16. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 43.85%. *Id.*

While the first *Gingles* factor is not met, there is racial bloc voting in this grouping. Dr. Handley finds that over 97% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between 28.1% and 38.9% in these general elections. Handley Report at 16 (Table 5).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 82	14.1%	Steele	Lost	47.3%
2016	Lt. Governor	15.5%	Coleman	Lost	33.8%
2016	Treasurer	15.5%	Blue III	Lost	36.1%
2012	House District 83	15.2%	Fleming	Lost	37%
2012	President	15.5%	Obama	Lost	37.8%
2012	Lt. Governor	15.5%	Coleman	Lost	39.1%
Primary Elections					
2016	Lt. Governor	15.5%	Coleman	Won	45.2%*
2016	Treasurer	15.5%	Blue III	Won	53.6%
2016	Attorney General	15.5%	Williams	Won	55.5%
2016	Commissioner of Labor	15.5%	Ferguson	Won	53.6%
2012	Commissioner of Labor	15.5%	Foster	Lost	24%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 29.1% to 47.6%. Handley Report at 16 (Table 5). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 36.6%. *See id.*

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley, and finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

d. Cleveland-Gaston Grouping

The Court finds the first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 17. He finds that the maximum African American CVAP that African Americans could comprise in a non-

contiguous district in this grouping while adhering to equal population requirements is 43.63%. *Id.*

While the first *Gingles* factor is not met, there is racial bloc voting in this grouping. Dr. Handley finds that over 95% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between just 23.1% and 30.0% in these general elections. Handley Report at 17 (Table 6).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Cleveland-Gaston					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 110	15.3%	McCleary	Lost	32.2%
2018	Senate District 43	14.8%	Price	Lost	34.8%
2016	Lt. Governor	16.2%	Coleman	Lost	33.0%
2016	Treasurer	16.2%	Blue III	Lost	36.0%
2012	House District 110	15.3%	McKoy	Lost	34.1%
2012	President	16.2%	Obama	Lost	37.1%
2012	Lt. Governor	16.2%	Coleman	Lost	39.1%
Primary Elections					
2016	Lt. Governor	16.2%	Coleman	Won	42.7%*
2016	Treasurer	16.2%	Blue III	Won	52.6%
2016	Attorney General	16.2%	Williams	Won	57.5%
2016	Commissioner of Labor	16.2%	Ferguson	Won	53.8%
2012	Commissioner of Labor	16.2%	Foster	Lost	25.8%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges

from 34.6% to 48.3%. Handley Report at 17 (Table 6). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 41.6%. *See id.*

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley and, finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

e. Columbus-Pender-Robeson Grouping

1. Native Americans

Robeson County contains a large Native American population. It is possible to create a majority Native American district in Robeson County, as the current version of House District 47 has a Native American VAP close to 50% and the prior 2011 version of the district did have a Native American VAP above 50%.

With respect to the second and third *Gingles* factors, Dr. Handley analyzed elections solely within Robeson County. Regarding the second factor, in the seven general elections that Dr. Handley analyzed in Robeson County, less than 60% of Native Americans supported the same candidate in 5 of 7 elections. Handley Report at 41 (Table 22A). Similar voting patterns exist in the primaries that Dr. Handley evaluated. *Id.* at 42 (Table 22B).

Based on the elections that Dr. Handley analyzed, the Court finds the third *Gingles* factor is not met with respect to Native Americans in Robeson County. Dr. Handley finds that a majority of non-Native Americans supported the same candidate as a majority of Native Americans in 5 of the 7 general elections she evaluated, and similar voting patterns exist in the primaries. Handley Report at 40-41 (Tables 22A & 22B). More importantly, the candidate of choice of Native Americans won every general election that Dr. Handley analyzed—all 7 of 7—and almost all of the primary elections as well. *Id.* Thus, non-Native

Americans have not voted "as a bloc usually to defeat [Native Americans'] preferred candidates." *Gingles*, 478 U.S. at 56.

2. African Americans

Dr. Chen and Dr. Handley also evaluated the African American community across all three counties in this grouping.

With respect to African Americans, Dr. Chen finds that it is not possible to create even a non-contiguous district that would have an African-American CVAP above 50%. Chen Report at 18. Dr. Chen finds that it may be possible to create a non-contiguous majority-African American district using total VAP from the Decennial Census rather than CVAP, but in any event, he finds that it is not possible to create a contiguous majority-African American district using total VAP. *Id.*

Dr. Handley finds that there is bloc voting in this grouping with respect to African Americans. Dr. Handley finds that over 82% of African Americans supported the same candidate in all general elections she studied. Handley Report at 18 (Table 7). And Dr. Handley calculates that between 26.3% and 46.0% of non-African Americans supported the black-preferred candidate in the general elections she studied. *Id.*

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Columbus-Pender-Robeson					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	Senate District 13	26.4%	Campbell	Lost	37.5%
2018	House District 46	24.7%	Yates-Lockamy	Lost	36.7%
2016	Lt. Governor	24.5%	Coleman	Lost	43.7%
2016	Treasurer	24.5%	Blue III	Lost	47.0%
2012	President	24.5%	Obama	Won	50.3%
2012	Lt. Governor	24.5%	Coleman	Won	57.4%
Primary Election					
2018	Senate District 13	26.4%	Campbell	Won	69.2%
2016	Lt. Governor	24.5%	Coleman	Won	41.6%*
2016	Treasurer	24.5%	Blue III	Won	64.8%
2016	Attorney General	24.5%	Williams	Won	60.1%
2016	Commissioner of Labor	24.5%	Ferguson	Lost	38.5%
2014	Senate District 13	26.4%	Williams	Lost	27.3%*
2012	Commissioner of Labor	24.5%	Richardson	Lost	27.9%

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 5.5% to 49.7%. Handley Report at 18 (Table 7). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice is 30.1%. *See id.*

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley and, finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

f. Cumberland

The Court finds the first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is not possible to create three non-contiguous districts that are majority-African American in Cumberland County. Chen Report at 19.

Regarding the second *Gingles* factor, Dr. Handley finds that over 83% of African Americans have supported the same candidate in all general elections studied in this county. Handley Report at 19 (Table 8A).

There is far less white bloc voting under the third *Gingles* factor, however. In 2 of the 7 general elections and 4 of the 7 Democratic primaries that Dr. Handley analyzed, a majority or plurality of white voters supported the African American-preferred candidate (in the 2018 general elections in House Districts 42 and 43, the 2018 Democratic primary in House District 43, the 2016 Lieutenant Governor primary, and the 2012 Lieutenant Governor and Commission of Labor primaries). Handley Report at 19-20 (Tables 8A & 8B). In the remaining general elections studied, white crossover voting ranged from 29.4% to 42.4%, with similar figures for the remaining Democratic primaries.

Election results since 2012 indicate that whites have not voted "as a bloc usually to defeat the minority's preferred candidates" in Cumberland County. *Gingles*, 478 U.S. at 56. As depicted in the table below, of the state legislative and statewide general elections in Cumberland County since 2012 that had an African American candidate, the African American candidate won 9 of the 10 elections. Like in *Cooper*, of those races that African American candidates won, the "closest election" saw an African American candidate win 57% of the vote, and African American candidates won much higher margins in most of the other elections. *Id.* at 1470. The BVAP in these elections ranged from 37.1% to 52.6%. *See id.* Similar results have occurred in Democratic primaries this decade.

Cumberland					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African American Candidate	Result for African American Candidate in District or Counties	Share of Two-Party Vote for African American Candidate
General Elections					
2018	House District 42	42.2%	Lucas, Jr.	Won	76.1%
2018	House District 43	50.0%	Floyd	Won	74.1%
2016	Senate District 19	22.5%	Morris	Lost	43.6%
2016	Lt. Governor	37.1%	Coleman	Won	57.3%
2016	Treasurer	37.1%	Blue III	Won	57.6%
2012	House District 42	52.6%	Lucas, Jr.	Won	77.5%
2012	House District 43	51.5%	Floyd	Won	69.6%
2012	President	37.1%	Obama	Won	59.9%
2012	Lt. Governor	37.1%	Coleman	Won	61.6%
Primary Elections					
2018	House District 43	50.0%	Floyd	Won	79.2%
2016	Lt. Governor	37.1%	Coleman	Won	59.1%*
2016	Treasurer	37.1%	Blue III	Won	52.3%
2016	Attorney General	37.1%	Williams	Won	66.7%
2016	Commissioner of Labor	37.1%	Ferguson	Lost	46.0%
2012	Commissioner of Labor	37.1%	Richardson	Won	42.8%*

Across the general elections that Dr. Handley studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in Cumberland County is 18.3%.[2] *See* Handley Report at 19-20 (Tables 8A & 8B).

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley and, finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

[2] For purposes of calculating averages, elections in which a majority of white voters supported the African-American-preferred candidate are considered to require 0% BVAP for the African-American-preferred candidate to have won.

g. Duplin-Onslow Grouping

The Court finds the first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 20. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 37.61%. *Id.*

While the first *Gingles* factor is not met, there is racial bloc voting in this grouping. Dr. Handley finds that over 97% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between just 15.1% and 28.0% in these general elections. Handley Report at 21 (Table 9).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Duplin-Onslow					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 4	22.6%	Love	Lost	35.7%
2016	Lt. Governor	18.5%	Coleman	Lost	34.7%
2016	Treasurer	18.5%	Blue III	Lost	35.7%
2012	President	18.5%	Obama	Lost	38.7
2012	Lt. Governor	18.5%	Coleman	Lost	41.9%
Primary Elections					
2018	House District 4	22.6	Love	Won	57.5%
2016	Lt. Governor	18.5%	Coleman	Won	46.7%*
2016	Treasurer	18.5%	Blue III	Won	54.9%
2016	Attorney General	18.5%	Williams	Won	64.6%
2016	Commissioner of Labor	18.5%	Ferguson	Won	51%
2012	Commissioner of Labor	18.5%	Richardson	Lost	29.1%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 31.2% to 51.7%. Handley Report at 21 (Table 9). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 42.3%. *See id.*

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley and, finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

h. Forsyth-Yadkin

The Court finds the first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is not possible to create two contiguous districts in this grouping that are majority-African American. Chen Report at 21. Regarding the second *Gingles* factor, Dr. Handley finds that over 98% of African Americans have supported the same candidate in all general elections studied in these counties. Handley Report at 22 (Table 10).

However, with respect to the third *Gingles* factor, the Court finds there is insufficient evidence of legally significant white bloc voting in this county grouping. In 4 of 8 of general elections and 4 of 6 Democratic primaries that Dr. Handley analyzed, a majority of whites supported the African-American-preferred candidate (in the 2018 general elections in House District 71, House District 72, and Senate District 32, in the 2014 general election in House District 71, in the 2016 Democratic primaries for Lieutenant Governor, Commissioner of Labor, and Treasurer, and in the 2012 Democratic primary for Lieutenant Governor). Handley Report at 22 (Table 10); *see Covington*, 316 F.R.D. at 170.

Election results since 2012 further demonstrate that whites have not voted "as a bloc usually to defeat the minority's preferred candidates." *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won 9 of 11 general elections and

7 of 9 Democratic primaries across these counties since 2012. In the most probative elections for present purposes—endogenous state House and state Senate races—African American candidates have won over 70% of the two-party vote in all seven general elections, even though the BVAPs of the districts involved were between just 36.6% and 47.5%. *See Cooper*, 137 S. Ct. at 1470.

Forsyth-Yadkin					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African American Candidate
General Elections					
2018	House District 71	36.6%	Terry	Won	72.7%
2018	House District 72	47.5%	Montgomery	Won	79.1%
2018	Senate District 32	39.2%	Lowe	Won	72.9%
2016	Lt. Governor	23.6%	Coleman	Lost	49.1%
2016	Treasurer	23.6%	Blue III	Lost	47.7%
2014	House District 71	45.5%	Terry	Won	76.6%
2012	House District 71	45.5%	Terry	Won	77.9%
2012	House District 72	45.0%	Hanes, Jr.	Won	74.4%
2012	Senate District 32	42.5%	Parmon	Won	73.0%
2012	President	23.6%	Obama	Won	51.0%
2012	Lt. Governor	23.6%	Coleman	Won	50.9%
Primary Elections					
2016	Lt. Governor	23.6%	Coleman	Won	55.6%*
2016	Treasurer	23.6%	Blue III	Won	59.1%
2016	Attorney General	23.6%	Williams	Lost	45.1%
2016	Commissioner of Labor	23.6%	Ferguson	Won	60.5%
2012	House District 71	45.5%	Terry	Won	51.3%
2012	House District 72	45.0%	Hanes, Jr.	Won	43.6%*
2012	House District 74	10.7%	Gladman	Lost	44.1%
2012	Senate District 32	42.5%	Parmon	Won	60.0%*
2012	Commissioner of Labor	23.6%	Foster	Won	38.9%*

Across the general elections that Dr. Handley studied across these counties, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 16.9%. Handley report at 22 (Table 10). Dr. Handley also

performed her analysis for elections solely within Forsyth County and found less polarized voting when focusing just on this county. *Id.* at 38 (Table 20). Accordingly, the average minimum BVAPs necessary for the African American-preferred candidate to have won the general elections in Forsyth County is lower than that across the full county grouping. *See id.*

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley and, finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

i. Nash-Franklin

At trial, Dr. Chen presented an analysis showing that, while it is possible to create a majority African American district in this grouping using voting-age population data from the Decennial Census, any such district would have a Polsby-Popper scores below 0.05. PX123 at 145-47 (Chen Rebuttal Report). But Dr. Chen concludes in his newest report that it is possible to create a majority-African American district with a Polsby-Popper score above 0.05 if using CVAP statistics rather than all VAP. Chen Report at 22.

With respect to the second and third *Gingles* factors, Dr. Handley finds that over 84% of African Americans have supported the same candidate in all general elections she studied, and white crossover voting has been between 20.8% and 44.8% in these general elections. Handley Report at 23 (Table 11).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Nash-Franklin					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 25	40.73%	Gailliard	Won	53.3%
2016	Lt. Governor	33.0%	Coleman	Lost	47.3%
2016	Treasurer	33.0%	Blue III	Lost	48.7%
2016	House District 7	50.7%	Richardson	Won	67.8%
2016	House District 25	16.1%	Gailliard	Lost	31.9%
2012	President	33.0%	Obama	Lost	49.5%
2012	Lt. Governor	33.0%	Coleman	Won	51.2%
Primary Elections					
2016	Lt. Governor	33.0%	Coleman	Won	66.5%*
2016	Treasurer	33.0%	Blue III	Won	65.1%
2016	Attorney General	33.0%	Williams	Lost	39.5%
2016	Commissioner of Labor	33.0%	Ferguson	Lost	25.2%
2012	House District 7	50.7%	Bryant	Won	83.5%
2012	Commissioner of Labor	33.0%	Foster	Won	36.2%*

Dr. Handley finds that the BVAP necessary for the African American-preferred Candidate to have won the general elections she analyzed in these counties ranges from 11.9% to 49.6%. Handley Report at 23 (Handley Report). Across the general elections she studied, the average BVAP necessary for African Americans to elect candidates of their choice in this grouping is 35.2%.

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley and, finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

j. Guilford

The Court finds the first *Gingles* factor is clearly met, at least as to the creation of a single district, given the racial demographics of Guilford County. Regarding the second *Gingles* factor, Dr. Handley finds that over 98% of African Americans have supported the same candidate in all general elections studied in this county. Handley Report at 24 (Table 12A).

However, with respect to the third *Gingles* factor, the Court finds there is insufficient evidence of legally significant white bloc voting in Guilford County. In 4 of the 9 general elections that Dr. Handley analyzed, a majority of white voters supported the African-American-preferred candidate (in the 2018 general elections in House District 58, House District 60, and Senate District 28, and in the 2016 general election in Senate District 28). *Id.*; *see Covington*, 316 F.R.D. at 170. And in the remaining general elections that Dr. Handley analyzed, white crossover voting exceeded 40% in all but one of the elections. Handley Report at 24 (Table 12A). Similar voting patterns occurred in Democratic primaries. *Id.* at 25 (Table 12B).

Election results since 2012 further demonstrate that whites have not voted "as a bloc usually to defeat the minority's preferred candidates" in Guilford County. *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won all 12 relevant Democratic primaries since 2012 and 9 of 11 general elections. In the seven state House and state Senate general elections that African American candidates have won, the African American candidate won over 68% of the vote, including in three districts where the BVAP was between 40%-43%. *See Cooper*, 137 S. Ct. at 1470.

Guilford					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 58	42.7%	Quick	Won	76.8%
2018	House District 60	40.1%	Brockman	Won	69.0%
2018	Senate District 28	43.6%	Robinson	Won	75.3%
2016	Senate District 28	56.5%	Robinson	Won	83.9%
2016	Lt. Governor	32.1%	Coleman	Won	58.2%
2016	Treasurer	32.1%	Blue III	Won	57.6%
2014	House District 61	15.3%	Weatherford	Lost	32.8%
2012	House District 58	51.1%	Adams	Won	79.9%
2012	House District 61	15.3%	Weatherford	Lost	36.2%
2012	President	32.1%	Obama	Won	58.3%
2012	Lt. Governor	32.1%	Coleman	Won	58.0%
Primary Elections					
2018	House District 58	42.7%	Quick	Won	80.2%
2016	House District 58	51.1%	Quick	Won	71.5%
2016	Lt. Governor	32.1%	Coleman	Won	57.9%*
2016	Treasurer	32.1%	Blue III	Won	54.3%
2016	Attorney General	32.1%	Williams	Won	54.6%
2016	Commissioner of Labor	32.1%	Ferguson	Won	61.3%
2014	House District 58	51.1%	Johnson	Won	42.6%*
2014	House District 60	51.4%	Brockman	Won	54.2%*
2014	Senate District 28	56.5%	Robinson	Won	59.4%
2012	House District 60	51.4%	Brandon	Won	66.2%
2012	Senate District 28	56.5%	Robinson	Won	72.0%
2012	Commissioner of Labor	32.1%	Foster	Won	39.2%*

Across the general elections that Dr. Handley studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in Guilford County is 12.8%. *See* Handley Report at 24 (Table 12A).

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley and, finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

k. Pitt-Lenoir

With respect to the first *Gingles* factor, Dr. Chen finds that it is possible to create a majority-African American district with a Reock score exceeding 0.15 and a Polsby-Popper score exceeding 0.05. Chen Report at 23.

Regarding the second *Gingles* factor, Dr. Handley finds that over 86% of African Americans supported the same candidate in all general elections she analyzed in this grouping. Dr. Handley also finds evidence of white bloc voting in this grouping. Handley Report at 26 (Table 13). Dr. Handley calculates white crossover voting of between 24.9% and 46.8% in the general elections she analyzed. *Id.*

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

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Pitt-Lenoir					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 8	44.9%	Smith	Won	39.7%
2018	House District 9	20.5%	Rixon	Lost	49.9%
2018	House District 12	37.4%	Graham	Lost	40.0%
2016	Lt. Governor	34.2%	Coleman	Won	51.4%
2016	Treasurer	34.2%	Blue III	Won	52.6%
2012	President	34.2%	Obama	Won	52.6%
2012	Lt. Governor	34.2%	Coleman	Won	54.7%
Primary Elections					
2018	House District 8	44.9%	Smith	Won	50.0%
2016	Lt. Governor	34.2%	Coleman	Won	53.6%
2016	Treasurer	34.2%	Blue III	Won	54.6%
2016	Attorney General	34.2%	Williams	Won	61.1%
2016	Commissioner of Labor	34.2%	Ferguson	Lost	46.5%
2012	Commissioner of Labor	34.2%	Richardson	Lost	30.2%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 12.2% to 57.3%. Handley Report at 26 (Table 13). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 30.4%. *See id.*

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley and, finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

l. Mecklenburg

The Court finds the first *Gingles* factor is clearly met, at least as to the creation of a single district, given the racial demographics of Mecklenburg County. Regarding the second *Gingles* factor, Dr. Handley finds that over 89% of African Americans have supported the same candidate in all general elections studied in this county. Handley Report at 27 (Table 14A).

However, the Court finds there is insufficient evidence of legally significant white bloc voting in Mecklenburg County for purposes of the third *Gingles* factor. In 14 of 19 of the general elections that Dr. Handley analyzed, a majority of white voters supported the African-American-preferred candidate. Handley Report at 27 (Table 14A); *see Covington*, 316 F.R.D. at 170.

Election results since 2012 further demonstrate that whites have not voted "as a bloc usually to defeat the minority's preferred candidates." *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won 15 of 16 relevant Democratic primaries since 2012 and 18 of 22 general elections in that time period. In 2018, African American candidates won state House races in Mecklenburg County in districts with BVAPs as low as 6.2% and 18.2%, and other African American candidates won landslide victories in districts with BVAPs between 30% and 40%. *See Cooper*, 137 S. Ct. at 1470.

Mecklenburg					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 92	30.2%	Beasley	Won	70.0%
2018	House District 99	49.5%	Majeed	Won	82.4%
2018	House District 101	50.8%	Logan	Won	78.7%
2018	House District 104	6.2%	Lofton	Won	51.8%
2018	House District 106	38.0%	Cunningham	Won	80.6%
2018	Senate District 40	38.9%	Waddell	Won	75.6%
2016	House District 92	18.2%	Beasley	Won	54.4%
2016	House District 101	51.3%	Earle	Won	76.0%
2016	House District 105	9.5%	Green-Johnson	Lost	44.7%
2016	Senate District 38	52.5%	Ford	Won	79.1%
2016	Senate District 40	51.8%	Waddell	Won	82.5%
2016	Lt. Governor	30.2%	Coleman	Won	59.6%
2016	Treasurer	30.2%	Blue III	Won	58.4%
2014	House District 92	18.2%	Bradford	Lost	47.5%
2014	House District 106	51.1%	Cunningham	Won	86.6%
2014	Senate District 38	52.5%	Ford	Won	79.7%
2014	Senate District 41	13.2%	McRae	Lost	39.5%
2012	House District 92	18.2%	Bradford	Lost	48.6%
2012	Senate District 38	52.5%	Ford	Won	80.2%
2012	Senate District 40	51.8%	Graham	Won	84.1%
2012	President	30.2%	Obama	Won	61.3%
2012	Lt. Governor	30.2%	Coleman	Won	59.8%
Primary Elections					
2018	House District 99	49.5%	Majeed	Won	57.3%*
2018	House District 101	50.8%	Logan	Won	50.0%*
2018	House District 106	38.0%	Cunningham	Won	88.9%
2018	Senate District 38	48.5%	Ford	Lost**	40.7%
2016	House District 101	51.3%	Earle	Won	78.6%
2016	House District 107	52.5%	Alexander, Jr.	Won	90.1%
2016	Senate District 38	52.5%	Ford	Won	52.1%
2016	Senate District 40	51.8%	Waddell	Won	64.7%

2016	Lt. Governor	30.2%	Coleman	Won	55.2%*
2016	Treasurer	30.2%	Blue III	Won	52.7%
2016	Attorney General	30.2%	Williams	Won	55.7%
2016	Commissioner of Labor	30.2%	Ferguson	Won	57.0%
2014	Senate District 40	51.8%	Waddell	Won	41.9%*
2012	House District 101	51.3%	Earle	Won	84.9*
2012	Senate District 38	52.5%	Ford	Won	52.2%
2012	Commissioner of Labor	30.2%	Richardson	Won	40.7%*

**In the 2016 Democratic primary in Senate District 38, Dr. Handley finds that the candidate of choice of African Americans was not the African American candidate, but rather another candidate who won the election.

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley, and finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

m. Buncombe

The Court finds the first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 15. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 16.81%. *Id.* Dr. Handley did not analyze this grouping given the relatively low number of African Americans who live in this county.

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley and, finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

n. Brunswick-New Hanover

The Court finds the first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which

African Americans could constitute a majority. Chen Report at 14. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 35.70%. *Id.* Dr. Handley did not analyze this grouping given the relatively low number of African Americans who live in these counties.

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley, and finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

III. Senate County Groupings

a. Alamance-Guilford-Randolph

The Court finds the first *Gingles* factor is not met in this grouping. After removing Senate Districts 24 and 28 (which cannot be altered under the Court's order), the remainder of this county grouping does not contain enough African Americans to constitute a majority in one of the two remedial districts to be created. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 7. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in the remaining territory in this grouping while adhering to equal population requirements is 34.06%. *Id.*

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley, and finds and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

b. Davie-Forsyth

The Court finds the first *Gingles* factor is not met in this grouping. At trial, Dr. Chen established in unrebutted testimony that it is not "mathematically possible" to create a majority-minority district in the Davie-Forsyth county grouping. Tr. 518:4-15. Dr. Chen found that, even if creating a non-contiguous district, the maximum BVAP possible for a district in this grouping while adhering to equal population requirements is just 81%. PX123 at 148-49 (Chen Rebuttal Report). Dr. Chen has confirmed in his most recent report that it would not be possible to create a majority African American district in this grouping if using CVAP rather than total VAP. Chen Report at 8. Dr. Chen finds that the maximum percent CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 45.55%. *Id.*

Dr. Handley's analysis indicates that the third *Gingles* factor also is not met in this grouping. Just as was the case with the Forsyth-Yadkin grouping in the House, the Court finds there is insufficient evidence of legally significant white bloc voting in the Davie-Forsyth grouping. In 4 of 8 of the general elections and 4 of 6 primaries that Dr. Handley analyzed, a majority of white supported the African-American-preferred candidate (in the 2018 general elections in House District 71, House District 72, and Senate District 32, in the 2014 general election in House District 71, and in the 2016 Democratic primaries for Commissioner of Labor and Treasurer). Handley Report at 33 (Table 17); *see Covington*, Election results since 2012 confirm that whites have not voted "as a bloc usually to defeat the minority's preferred candidates." *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won 9 of 11 general elections and 7 of 9 Democratic primaries across these counties since 2012. In the most probative elections for present purposes—endogenous state House and state Senate races—African American candidates have won over 70% of the two-party vote in all seven general elections, even though the BVAPs of the

districts involved were between just 36.6% and 47.5%. *See Cooper*, 137 S. Ct. at 1470, 316 F.R.D. at 170.

Davie-Forsyth					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 71	36.6%	Terry	Won	72.7%
2018	House District 72	47.5%	Montgomery	Won	79.1%
2018	Senate District 32	39.2%	Lowe	Won	72.9%
2016	Lt. Governor	23.8%	Coleman	Lost	49.2%
2016	Treasurer	23.8%	Blue III	Lost	47.6%
2014	House District 71	45.5%	Terry	Won	76.6%
2012	House District 71	45.5%	Terry	Won	77.9%
2012	House District 72	45.0%	Hanes, Jr.	Won	74.4%
2012	Senate District 32	42.5%	Parmon	Won	73.0%
2012	President	23.8%	Obama	Won	50.9%
2012	Lt. Governor	23.8%	Coleman	Won	50.7%
Primary Elections					
2016	Lt. Governor	23.8%	Coleman	Won	55.6%*
2016	Treasurer	23.8%	Blue III	Won	59.2%
2016	Attorney General	23.8%	Williams	Lost	45.0%
2016	Commissioner of Labor	23.8%	Ferguson	Won	60.2%
2012	House District 71	45.5%	Terry	Won	51.3%
2012	House District 72	45.0%	Hanes, Jr.	Won	43.6%*
2012	House District 74	10.7%	Gladman	Lost	44.1%
2012	Senate District 32	42.5%	Parmon	Won	60.0%*
2012	Commissioner of Labor	23.8%	Foster	Won	39.3%*

Across the general elections that Dr. Handley studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice is 15.5%. *See* Handley Report at 33 (Table 17). Dr. Handley also performed her analysis for elections solely within Forsyth County and found less polarized voting when focusing just on this county. *Id.* at 38 (Table 20). Accordingly, the average minimum BVAPs necessary for the African American-preferred candidate to have won the general elections in Forsyth County is lower than that across the full county grouping. *See id.*

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley, and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

c. Duplin-Harnett-Johnston-Lee-Nash-Sampson

The Court finds the first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 11. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 47.48%. *Id.*

While the first *Gingles* factor is not met, it does appear that there is racial bloc voting in this grouping. Dr. Handley finds that over 84% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between 15.1% and 44.8% in these general elections. Handley Report at 34 (Table 18A).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Johnston-Sampson-Nash-Harnett-Duplin					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 4	22.6%	Love	Lost	35.7%
2018	House District 25	40.73%	Gailliard	Won	53.3%
2018	Senate District 10	24.1%	Moore	Lost	37.5%
2016	Lt. Governor	23.6%	Coleman	Lost	38.9%
2016	Treasurer	23.6%	Blue III	Lost	40.6%
2012	President	23.6%	Obama	Lost	42.0%
2012	Lt. Governor	23.6%	Coleman	Lost	44.4%
Primary Elections					
2018	House District 4	22.6	Love	Won	57.5%
2016	Lt. Governor	23.6%	Coleman	Won	58.6%
2016	Treasurer	23.6%	Blue III	Won	59.2%
2016	Attorney General	23.6%	Williams	Won	50.5%
2016	Commissioner of Labor	23.6%	Ferguson	Lost	32.6%
2012	Commissioner of Labor	23.6%	Richardson	Lost	30.8%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 11.9% to 45.0%. Handley Report at 34 (Table 18A). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice is 36.1%. *See id.*

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley, and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

d. Franklin-Wake

The Court finds the first *Gingles* factor is met, as least to the creation of a single district, given the racial demographics of these counties. The Court also finds the second *Gingles* factor is met. Regarding the second *Gingles* factor, Dr. Handley finds that over 99% of African Americans have supported the same candidate in all general elections studied in this county grouping. Handley Report at 36 (Table 19A).

However, with respect to the third *Gingles* factor, the Court finds there is insufficient evidence of legally significant white bloc voting in this grouping. In 12 of 20 primary and general elections that Dr. Handley analyzed, a majority of whites voted for the African American-preferred candidate. *Id.* at 36-37 (Tables 19A & 19B); *see Covington*, 316 F.R.D. at 170. And with respect to state legislative elections in particular, a majority of whites supported the African American-preferred candidate in 6 of 8 general elections and 2 of 2 Democratic primaries. *Id.* In the few primary and general elections that Dr. Handley analyzed in this grouping where a majority of whites did not support the African American-preferred candidate, white crossover voting exceeded 40% in all but two of these elections. *Id.*

Dr. Handley also performed her analysis for elections solely within Wake County and found less polarized voting when focusing just on this county: she found that a majority of white voters supported the African American-preferred candidate in 9 of the 13 general elections she analyzed in Wake County. Handley Report at 29 (Table 15A).

Election results since 2012 confirm that whites have not voted "as a bloc usually to defeat the minority's preferred candidates" in this grouping. *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won all 12 relevant general elections and 7 of 10 primaries since 2012. In 2018, an African American candidate won a

state House race in Wake County in a district with a BVAP of just 14.3%, and other African American candidates won landslide victories in districts with BVAPs between 38% and 49%. *See id.* at 1470.

Franklin-Wake					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 33	44.2%	Gill	Won	78.7%
2018	House District 37	14.3%	Batch	Won	51.1%
2018	House District 38	48.3%	Holley	Won	84.1%
2018	Senate District 14	38.9%	Blue Jr.	Won	71.4%
2016	House District 38	51.4%	Holley	Won	84.8%
2016	Lt. Governor	21.1%	Coleman	Won	55.7%
2016	Treasurer	21.1%	Blue III	Won	55.4%
2014	House District 33	51.4%	Gill	Won	87.3%
2014	House District 38	51.4%	Holley	Won	79.9%
2012	House District 38	51.4%	Holley	Won	87.7%
2012	President	21.1%	Obama	Won	55.4%
2012	Lt. Governor	21.1%	Coleman	Won	54.9%
Primary Elections					
2018	House District 33	44.2%	Gill	Won	60.2%
2016	House District 33	51.4%	Gill	Won	64.1%
2016	Lt. Governor	21.1%	Coleman	Won	60.7%*
2016	Treasurer	21.1%	Blue III	Won	63.4%
2016	Attorney General	21.1%	Williams	Lost	35.4%
2016	Commissioner of Labor	21.1%	Ferguson	Lost	27.8%
2012	House District 33	51.4%	Gill	Won	78.7%
2012	House District 38	51.4%	Holley	Won	60.8%*
2012	House District 39	26.5%	Mial	Lost	29.5%
2012	Commissioner of Labor	21.1%	Foster	Won	37.7%*

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley, and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

e. Mecklenburg

The analysis for the Mecklenburg Senate county grouping is identical to that for the Mecklenburg grouping in the House. Thus, the Court finds and concludes there is insufficient evidence of legally significant white bloc voting in this Senate grouping under the third *Gingles* factor, and that this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

f. New Hanover-Bladen-Pender-Brunswick

The Court finds the first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 9. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 28.11%. *Id.* Dr. Handley did not analyze this grouping given the relatively low number of African Americans who live in these counties.

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley, and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

g. Buncombe-Henderson-Transylvania

The Court finds the first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 10. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 10.47%. *Id.* Dr. Handley did not analyze this grouping given the relatively low number of African Americans who live in these counties.

The Court finds credible and persuasive the foregoing analysis and conclusions of Dr. Chen and Dr. Handley, and concludes this grouping complies with the VRA and other federal requirements concerning the racial composition of districts.

BASED UPON THE FOREGOING findings and conclusions, the Court finds and concludes that the House redistricting plan, N.C. Sess. Laws 2019-220 (House Bill 1020) enacted into law on September 17, 2019, and the Senate redistricting plan, N.C. Sess. Laws 2019-219 (Senate Bill 692) enacted into law on September 17, 2019, comply with the VRA and other federal requirements regarding the racial composition of districts.

SO ORDERED, this the 22nd day of January, 2020.

/s/ Paul C. Ridgeway

Paul C. Ridgeway, Superior Court Judge

/s/ Joseph N. Crosswhite

Joseph N. Crosswhite, Superior Court Judge

/s/ Alma L. Hinton

Alma L. Hinton, Superior Court Judge

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing document was served upon the persons indicated below by emailing a copy thereof to the address below, in accordance with the March 13, 2019 Case Management Order:

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This the 22nd day of January 2020.

Kellie Z. Myers
Trial Court Administrator – 10th Judicial District
kellie.z.myers@nccourts.org

Exhibit 3

Senate District	Population (2010 Census)	BVAP	Black CVAP	Winner's Name	Winner's Party	Winner's Race	Loser's Race	Winner's Two-Party Vote Share	County Grouping
3	182,039	44.36%	44.89%	Erica D. Smith	D	AA	W	0.53855674	Beaufort-Bertie-Martin-Northampton-Vance-Warren
4	192,477	47.46%	49.52%	Milton F. Fitch, Jr.	D	AA	W	0.58955417	Edgecombe-Halifax-Wilson
5	189,510	32.94%	34.87%	Don Davis	D	AA	W	0.55335324	Greene-Pitt
10	183,566	24.06%	26.15%	Brent Jackson	R	W	AA	0.62456245	Duplin-Harnett-Johnston-Lee-Nash-Sampson
13	192,266	26.37%	27%	Danny Earl Britt, Jr.	R	W	AA	0.62503265	Columbus-Robeson
14	194,087	38.85%	40.02%	Dan Blue	D	AA	W	0.733937	Franklin-Wake
20	184,237	40.35%	43.27%	Floyd McKissick, Jr.	D	AA	W	0.85772245	Durham-Granville-Person
21	183,514	42.15%	41.23%	Ben Clark	D	AA	W	0.70939514	Cumberland-Hoke
23	197,306	12.81%	13.13%	Valerie P. Foushee	D	AA	W	0.71291633	Chatham-Orange
28	198,114	43.64%	45.33%	Gladys Robinson	D	AA	W	0.7524575	Alamance-Guilford-Randolph
29	190,676	10.24%	10.92%	Eddie Gallimore	R	W	AA	0.71641654	Davidson-Montgomery
32	194,378	39.18%	42.39%	Paul Lowe, Jr.	D	AA	W	0.72879786	Davie-Forsyth
34	197,843	10.12%	10.61%	Vickie Sawyer	R	W	AA	0.69731082	Iredell-Yadkin
40	183,426	38.88%	45.24%	Joyce Waddell	D	AA	AA	0.75631345	Mecklenburg
43	197,035	14.75%	16.16%	Kathy Harrington	R	W	AA	0.65219572	Cleveland-Gaston-Lincoln
44	185,394	13.30%	13.42%	Ted Alexander	R	W	AA	0.68847425	Cleveland-Gaston-Lincoln

Exhibit 4

NORTH CAROLINA GENERAL ASSEMBLY

JOINT MEETING OF THE HOUSE REDISTRICTING AND

SENATE REDISTRICTING AND ELECTIONS COMMITTEES

SEPTEMBER 27, 2023

PUBLIC COMMENT SESSION

Transcribed by:

Denise Myers Byrd, CSR 8340

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was a way for the public who was -- people who were not able to be here in person to put their comments on the record. That way they could use a portal to put their written comments in. And as far as I know, that does not exist yet.

Has the chair decided whether there will be an opportunity for people to submit their request to some sort of public record through a portal?

SENATOR HISE: That does exist. It is available on the General Assembly website and is open.

SENATOR MARCUS: It currently is?

SENATOR HISE: Yes.

SENATOR MARCUS: Okay. I was not aware. Thank you. I will look for that.

SENATOR HISE: I will now go through the introduction of the sergeant-at-arms that will be assisting us today.

First from the House, Terry McGraw, Jonas Cherry, Todd Jordan. Many of these may not be in the room because we're doing multiple rooms that are here as well. Nina Long, Thomas Terry, Stafford Young. Thanks for coming in.

And the Senate sergeant-at-arms, Terry

Exhibit 5

NORTH CAROLINA GENERAL ASSEMBLY

SENATE REDISTRICTING AND ELECTIONS COMMITTEES

OCTOBER 19, 2023

Transcribed by:

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redistricting.

The categories of equal population, traditional redistricting principles, compactness, contiguity, respect for existing political subdivisions, political considerations and incumbent residence should not be foreign concepts to members of this committee.

The major difference between these two documents is the use of the county grouping formula related to legislative maps as required by our constitution and as contained in the Stephenson decision.

I will note -- it is important to note that the chairs did not use racial data when drawing the legislative and congressional maps. Let me explain why.

The predominant use of race to draw districts violates the US Constitution unless doing so serves a compelling government interest. In other words, if the legislature draws districts predominantly based upon race without a compelling interest, those districts would be declared illegal racial gerrymanders. We know this from the Cooper and Covington cases.

As for the Voting Rights Act, in order for the predominant use of race to be justified under Section 2, there must be a strong basis in evidence of three Gingles conditions. Even assuming the presence of the three Gingles conditions, the use of race to draw districts must also be supported by the totality of the circumstances.

Past decisions and court records demonstrate that to this point nowhere in North Carolina can anyone provide evidence of the three Gingles preconditions. In the absence of any evidence of the three Gingles preconditions, the chairs elected not to use race in drawing these proposed districts strictly to protect the state from lawsuits alleging illegal racial gerrymandering.

To be clear, the chairs do not believe that the use of racial data would have been helpful in reaching any political or other legislative redistricting goal. Any political considerations in line drawing have been informed by political data, not racial data.

That said, now that the maps under consideration have been filed and made public,

the chairs will now formally direct central staff to load racial data into the Maptitude software following this committee meeting and apply that data layer to the proposed congressional and senate maps. We ask the central staff apply that racial data, update the stat packs accordingly, and make that information publicly available on the General Assembly website as soon as possible.

To emphasize once again, the chairs did not use racial data and statistics at any point in the construction of these districts, and the publication of racial statistics here does not inform the placement of any residents within any districts within these maps.

Finally, as mentioned earlier, the committee will meet next week, on Monday, and amendments to these bills will be considered at this meeting. I do believe that meeting will be at 10:00 a.m. on Monday, but notices will come out.

The chairs at that time will consider any evidence that a member of this committee or a third party advocating altering plans for racial reasons brings forth that provides a

strong basis in evidence that the Gingles preconditions are present in a particular area of the state. Only then will the chairs consider using race in amending the districts to protect the state from liability under Section 2 of the Voting Rights Act.

Are there any questions?

Senator Blue.

SENATOR BLUE: Thank you, Mr. Chairman. I -- especially in the explanations of the last areas that you dipped into, I was reading the Allen versus Milligan case, the Alabama case that sort of breathed a new life into Section 2 challenges to redistricting plans. And it points out pretty specifically that -- and I'll quote generally and then I'll ask you a question.

It says, "When it comes to considering race in the context of districting, we have made clear that there is a difference between being aware of racial considerations and being motivated by them."

Section 2 itself -- this is a continuation of a quote.

"Section 2 itself demands consideration

heard you just say is you haven't done a racial polarization study in -- to help draw these maps.

SENATOR HISE: Studies regarding racial polarization were done as part of the lawsuit a year and a half ago since this data has been -- since the census data has been released.

SENATOR MARCUS: Okay. And then I guess just one follow-up. So we're to take you at your word. You said a couple times here that you've not used racial data to draw these maps and that you're only now adding it to the state system for the public to see the racial implications of the map. And I'm curious if we're to just take you at your word for that or if you will be making your redistricting records publicly available so we know what racial data was used or not used in drawing these maps.

SENATOR HISE: I will confirm that the chairs have not used racial data. You can confirm yourself with central staff. It is not part of the software system. The data has never been uploaded to -- including the computer that was provided to the Democrats in 605. Racial data has not been added up to any of the systems

discussion only.

Whenever you're ready, Senator Daniels, you're recognized to explain the bill.

SENATOR DANIEL: Thank you, Senator Hise.

Members, and so I'm going to go through the districts like Senator Hise has been doing with the other maps, so this could take some time. I'm not going to try to describe the color schemes Senator Hise did. You'll have to kind of figure that out.

Senate District 1 is created by the county grouping choice in northeastern North Carolina. The chairs chose the configuration that makes Senate District 1 out of the following whole counties: Northampton, Bertie, Hertford, Gates, Perquimans, Pasquotank, Camden, Currituck, Tyrrell and Dare. This configuration leaves four of the five finger counties in northeastern North Carolina in one district.

Many of the residents of these counties work or travel frequently to the Virginia Tidewater area. Seven of the ten counties and 81 percent of the population in

Senate District 1 are in the Norfolk media market: Dare, Currituck, Camden, Pasquotank, Perquimans, Hertford and Gates, with the other three divided between Greenville market, Tyrrell and Bertie and Raleigh, Northampton containing 19 percent of the district's population.

All of the counties in North Carolina that are in the Norfolk media market are in Senate District 1 except for Chowan. The incumbent in Senate District 1 is Senator Hanig from Currituck.

Senate District 2 follows the Roanoke River from Warren county to the Albemarle Sound in Washington county. Chowan county, directly across the Albemarle Sound from Washington county, is also grouped into this district. Hyde County, also on the sound, is in this district as in -- as is Pamlico county along with the Pamlico River and Pamlico Sound.

Finally, Carteret county spanning the inner and Outer Banks as the southernmost county in the district.

Five of the eight counties in the district are in the Greenville media market, with the other three being split between the

Raleigh media market, that would be Warren and Halifax, and Norfolk media market, Chowan. Two-thirds of the population of this district live in the Greenville media market.

The incumbent in Senate District 2 is Senator Sanderson from Pamlico.

Senate District 3 is unchanged from the previous map but renumbered. It is created by the base county grouping map: Lenoir, Craven and Beaufort counties.

The incumbent in Senate District 3 is Senator Perry from Lenoir.

And if I could get the sergeant-at--arms to -- I don't have a paper copy of the map, if someone could bring me one.

Senate District 4 is unchanged from the previous map and is created by the base county grouping map, Wayne, Wilson in Greene counties. This incumbent in Senate District 4 is Senator Buck Newton from Wilson county.

Senate District 5 is unchanged from the previous map and created by the base county grouping map, Edgecombe and Pitt counties. The incumbent in Senate District 5 is Senator Smith from Pitt county.

are whole in Senate District 9. Sampson county is split between the two districts. One precinct Plain View was moved from Senate District 9 to 12, leaving the rest of Sampson county in Senate District 9. The incumbent in Senate District 9 is Senator Jackson from Sampson county.

Senate District 10 is unchanged from the previous map and is created by the base county grouping map Johnston county. The incumbent is Senator Sawrey from Johnston.

Senate District 11 is unchanged from the previous map and is created by the base county grouping map, Vance, Franklin and Nash counties. The incumbent in Senate District 11 is Senator Barnes from Nash county.

Senate District 12 is made up of Lee and Harnett counties, plus the Plain View precinct in Sampson as described previously. The incumbent in Senate District 12 is Senator Burgin from Harnett county.

Senate District 13, Wake and Granville counties form a sixth district, two-county grouping in the base senate map. The overall population within the county grouping is

Exhibit 6

IN THE
UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
EASTERN DIVISION

RODNEY D. PIERCE; *et al.*, Plaintiffs, v. **THE NORTH CAROLINA STATE BOARD OF ELECTIONS; *et al.*,**, Defendants,	Case No. 4:23-cv-193-D

EXPERT REPORT OF SEAN P. TRENDE, Ph.D.

1 Expert Qualifications

1.1 Career

I serve as Senior Elections Analyst for Real Clear Politics. I joined Real Clear Politics in January of 2009 after practicing law for eight years. I assumed a fulltime position with Real Clear Politics in March of 2010. Real Clear Politics is a company of approximately 50 employees, with its main offices in Washington D.C. It produces one of the most heavily trafficked political websites in the world, which serves as a one-stop shop for political analysis from all sides of the political spectrum and is recognized as a pioneer in the field of poll aggregation. Real Clear Politics produces original content, including both data analysis and traditional reporting.

My main responsibilities with Real Clear Politics consist of tracking, analyzing, and writing about elections. I collaborate in rating the competitiveness of Presidential, Senate, House, and gubernatorial races. As a part of carrying out these responsibilities, I have studied and written extensively about demographic trends in the country, exit poll data at the state and federal level, public opinion polling, and voter turnout and voting behavior. In particular, understanding the way that districts are drawn and how geography and demographics interact is crucial to predicting United States House of Representatives races, so much of my time is dedicated to that task.

I am currently a Visiting Scholar at the American Enterprise Institute, where my publications focus on the demographic and coalitional aspects of American Politics.

I am also a Lecturer at The Ohio State University.

1.2 Publications and Speaking Engagements

I am the author of the 2012 book The Lost Majority: Why the Future of Government is up For Grabs and Who Will Take It. In this book, I explore realignment theory. It argues that realignments are a poor concept that should be abandoned. As part of this analysis, I conducted a thorough analysis of demographic and political trends beginning

in the 1920s and continuing through modern times, noting the fluidity and fragility of the coalitions built by the major political parties and their candidates.

I also co-authored the 2014 Almanac of American Politics. The Almanac is considered the foundational text for understanding congressional districts and the representatives of those districts, as well as the dynamics in play behind the elections. My focus was researching the history of and writing descriptions for many of the 2012 districts, including tracing the history of how and why they were drawn the way that they were drawn. Because the 2014 Almanac covers the 2012 elections, analyzing how redistricting was done was crucial to my work. I have also authored a chapter in Larry Sabato's post-election compendium after every election dating back to 2012.

I have spoken on these subjects before audiences from across the political spectrum, including at the Heritage Foundation, the American Enterprise Institute, the CATO Institute, the Bipartisan Policy Center, and the Brookings Institution. In 2012, I was invited to Brussels to speak about American elections to the European External Action Service, which is the European Union's diplomatic corps. I was selected by the United States Embassy in Sweden to discuss the 2016 elections to a series of audiences there and was selected by the United States Embassy in Spain to fulfill a similar mission in 2018. I was invited to present by the United States Embassy in Italy, but was unable to do so because of my teaching schedule.

1.3 Education

I received my Ph.D. in political science at The Ohio State University in 2023. I passed comprehensive examinations in both methods and American Politics. The first chapter of my dissertation involves voting patterns on the Supreme Court from 1900 to 1945; the second chapter involves the application of integrated nested LaPlace approximations to enable the incorporation of spatial statistical analysis in the study of United States elections. The third chapter of the dissertation involves the use of communities of interest in redistricting simulations. In pursuit of this degree, I also earned a Mas-

ter's Degree in Applied Statistics. My coursework for my Ph.D. and M.A.S. included, among other things, classes on G.I.S. systems, spatial statistics, issues in contemporary redistricting, machine learning, non-parametric hypothesis tests and probability theory. I also earned a B.A. from Yale University in history and political science in 1995, a Juris Doctor from Duke University in 2001, and a Master's Degree in political science from Duke University in 2001.

In the winter of 2018, I taught American Politics and the Mass Media at Ohio Wesleyan University. I taught Introduction to American Politics at The Ohio State University for three semesters from Fall of 2018 to Fall of 2019, and again in Fall of 2021. In the Springs of 2020, 2021, 2022 and 2023, I taught Political Participation and Voting Behavior at The Ohio State University. This course spent several weeks covering all facets of redistricting: how maps are drawn, debates over what constitutes a fair map, measures of redistricting quality, and similar topics. I also taught survey methodology in Fall of 2022 and Spring of 2024.

1.4 Prior Engagements as an Expert

A full copy of all cases in which I have testified or been deposed is included on my c.v, attached as Exhibit 1. In 2021, I served as one of two special masters appointed by the Supreme Court of Virginia to redraw the districts that will elect the Commonwealth's representatives to the House of Delegates, state Senate, and U.S. Congress in the following decade. The Supreme Court of Virginia accepted those maps, which were praised by observers from across the political spectrum. *E.g.*, "New Voting Maps, and a New Day, for Virginia," *The Washington Post* (Jan. 2, 2022), *available at* `https://www.washingtonpost.com/opinions/2022/01/02/virginia-redistricting-voting-mapsgerrymandee`; Henry Olsen, "Maryland Shows How to do Redistricting Wrong. Virginia Shows How to Do it Right," *The Washington Post* (Dec. 9, 2021), *available at* `https://www.washingtonpost.com/opinions/2021/12/09/maryland-virginia-redistricting/`; Richard Pildes, "Has VA Created a New Model for a Reasonably Non-Partisan Redistricting

Process," *Election Law Blog* (Dec. 9, 2021), available at https://electionlawblog.org/?p=126216.

In 2019, I was appointed as the court's expert by the Supreme Court of Belize. In that case I was asked to identify international standards of democracy as they relate to malapportionment claims, to determine whether Belize's electoral divisions (similar to our congressional districts) conformed with those standards, and to draw alternative maps that would remedy any existing malapportionment.

I served as a Voting Rights Act expert to counsel for the Arizona Independent Redistricting Commission in 2021 and 2022.

2 Scope of Engagement

I have been retained by the law firm of Nelson Mullins Riley & Scarborough, LLP, on behalf of the legislative defendants in the above-captioned action. I was asked to examine the districts drawn by Mr. Blakeman B. Esselstyn in his Nov. 22, 2023 map. To accomplish this, I used the block assignment files and shapefiles provided by plaintiffs for their Demonstration Districts, and code that I authored using the computer programming language R.

3 Analysis of the Demonstration Map

3.1 Demonstration Map A

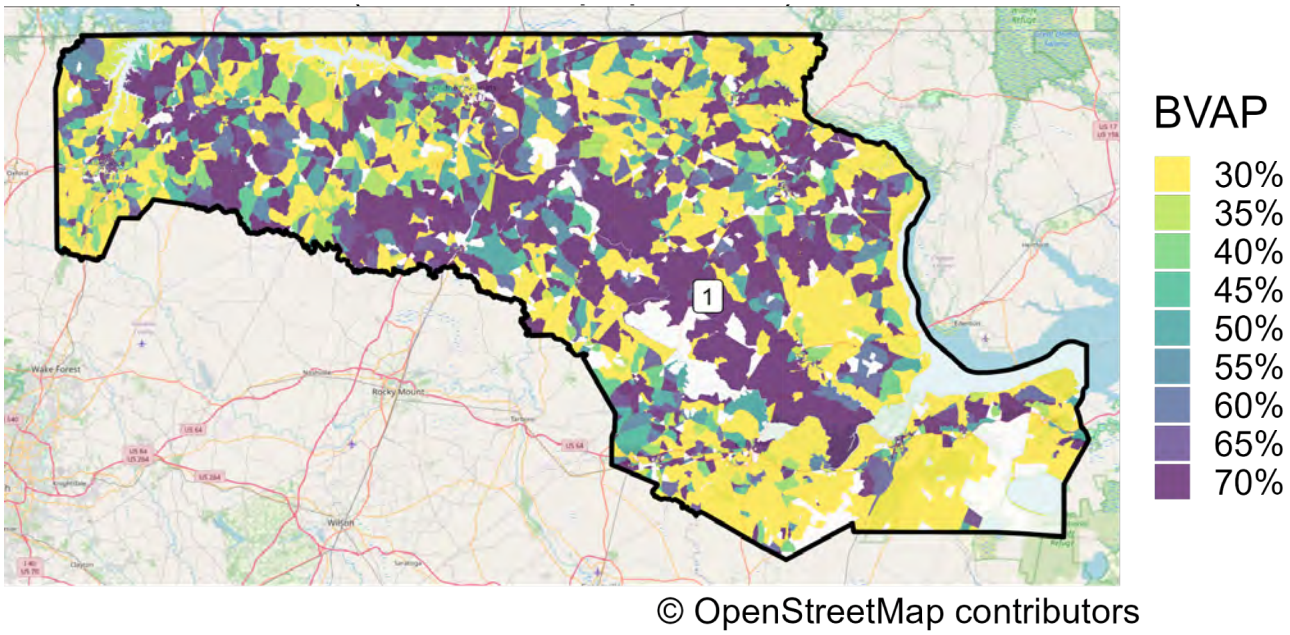
Demonstration Map A consists only of a single illustrative district. It consists of Bertie, Halifax, Hertford, Martin, Northampton, Vance, Warren and Washington counties. I have referred to a document located at https://sites.duke.edu/quantifygerrymandering/files/2021/08/countyClusters2020.pdf, which displays the "Stephenson groupings" for the state of North Carolina. Vance County is not within the same Stephenson grouping as are the remaining counties. I have not had sufficient time

to work out what the impact of removing Vance County from the Stephenson group that currently contains Franklin and Nash counties would be. However, Franklin and Nash counties do not have sufficient population to support a single Senate district on their own. Therefore, they will have to be combined with an additional county or with additional counties. In other words, there will be a cascade of changes that are difficult to sort out at this point.

The district contains 160,510 residents of voting age, of whom 82,610 are Black. Thus, the percent Black Voting Age Population (BVAP) of the district is 51.47%. With a population of 160,510, residents of Voting Age, the district would need to have 80,256 Black residents of voting age to be 50% + 1 Black. Because every county in the district has at least 2,364 Black residents of voting age, all counties in the map are required to achieve a majority Black district. If counties were to be split, which I understand to violate the Stephenson rule, only three precincts at the eastern end of Washington County could be removed while maintaining a BVAP of 50%, or two precincts at the western tip of Vance County could be removed.

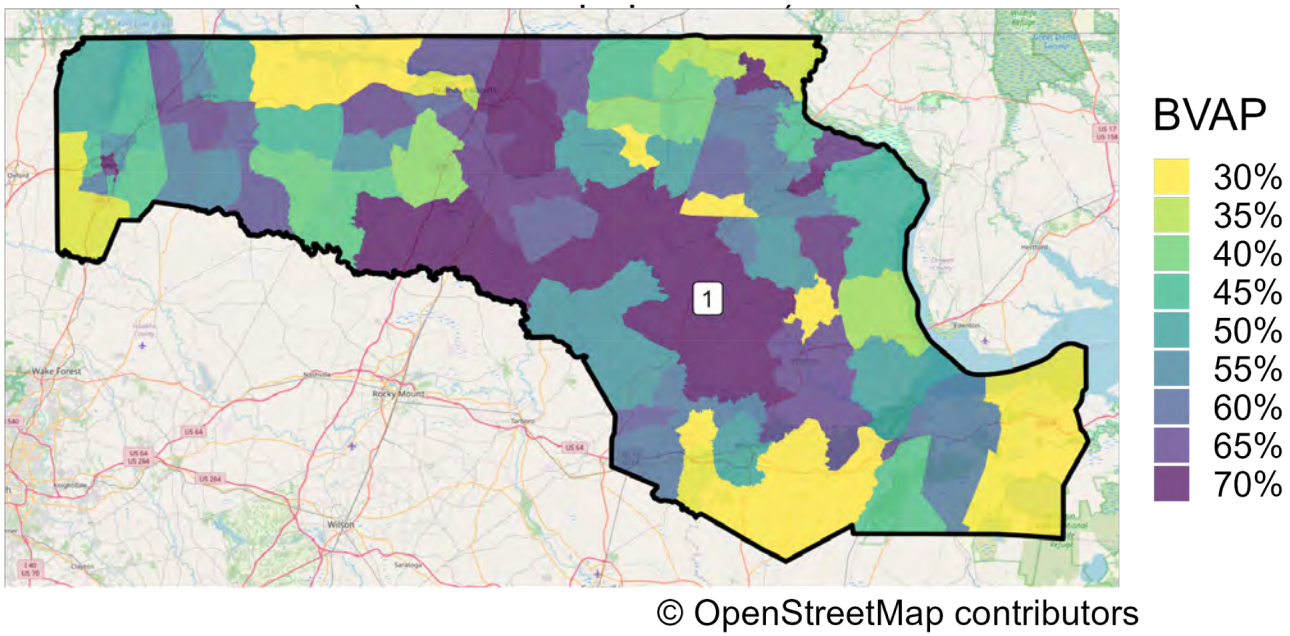
I was first asked to create maps that would depict the racial distribution of residents of voting age in Plaintiffs' proposed districts. We begin with choropleth maps. Choropleth maps area traditional "area-based" maps, where some areal unit (here, blocks or VTDs) are shaded to correspond with some data (here, percentage of residents who are Black and of voting age ("BVAP"). We can first look at the maps at the census block level.

Figure 1: Proposed VRA District in Demonstration Map A, Block Level



We can also examine the district at the VTD level:

Figure 2: Proposed VRA District in Demonstration Map A, Block Level



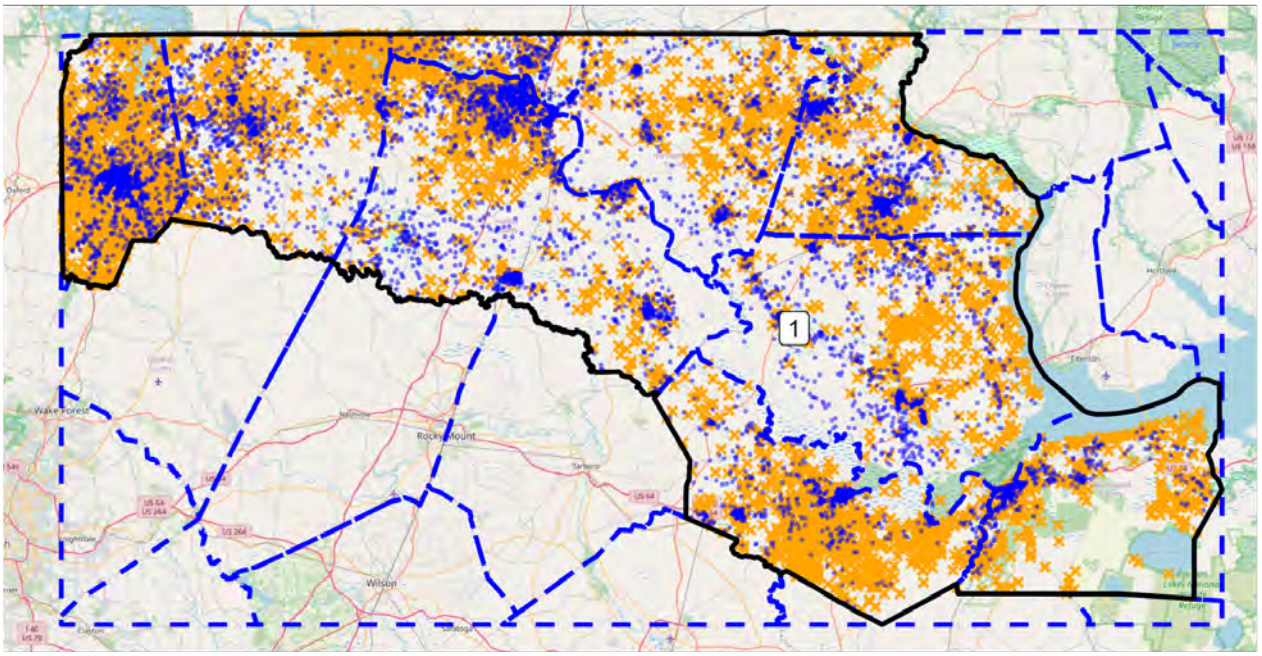
These color scales on these maps are truncated at 30% and 70% BVAP. In my experience, allowing the color scale to run from 0% to 100% risks losing a good deal of data, as differences in the crucial 40% - 60% BVAP range are blended together. This approach has been accepted in many courts in which I have testified, and has never been challenged by a court.

One of the limitations of choropleth maps, however, is that they don't reveal populations. A VTD with 10 Black residents and 10 White residents is treated the same as a VTD with 1,000 Black residents and 1,000 White residents. While there may be times where those differences are immaterial, there may also be times where the difference is important.

To account for this, I will typically employ dot density maps. Dot density maps have been utilized in cases at least back to the Bethune-Hill case, where Dr. Rodden employed them to examine the distribution of residents of districts. In a dot density map, census blocks are taken as the basis for the district. In each block, a dot is drawn

for every member of a group, or every ten members, or every 100 members, depending on the scale of the map. For these maps, I employ 1 blue dot for 10 Black Citizens of Voting Age, an orange "x' for 10 White Citizens of Voting Age, and a purple "+" for 10 members of other races. Obviously there is some rounding involved, but in the aggregate that typically does not matter. The dashed blue lines reflect county boundaries.

Figure 3: Proposed VRA District in Demonstration Map A, Dot Density Map. 1 blue dot = 10 Black residents of voting age, while 1 orange x = 10 White residents of voting age.



3.2 Demonstration Map B

I was also asked to consider the racial distribution of the residents of Map B. District B-1 is the purported VRA demonstration district. Its Voting Age Population is 160,306. Of those, 77,599 residents are Black, giving the district a percent BVAP of 48.4%. Over 11,000 of those Black residents live at the top of the arm of the district that extends into (and splits) Pasquotank County to take in Elizabeth City.

For this, I created two "looks." The first depicts both District B-1, which is the Illustrative District, and District B-2, which is the other district that fills out the Stevenson grouping. The second depicts District B-1 alone.

Figure 4: Proposed VRA District in Demonstration Map B, Block Level

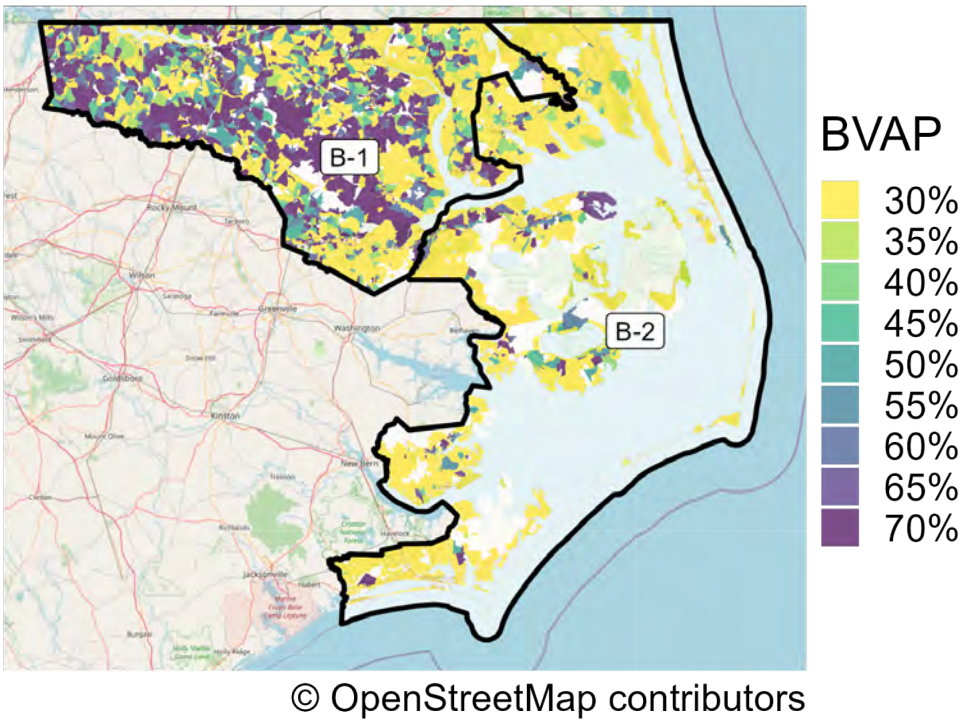
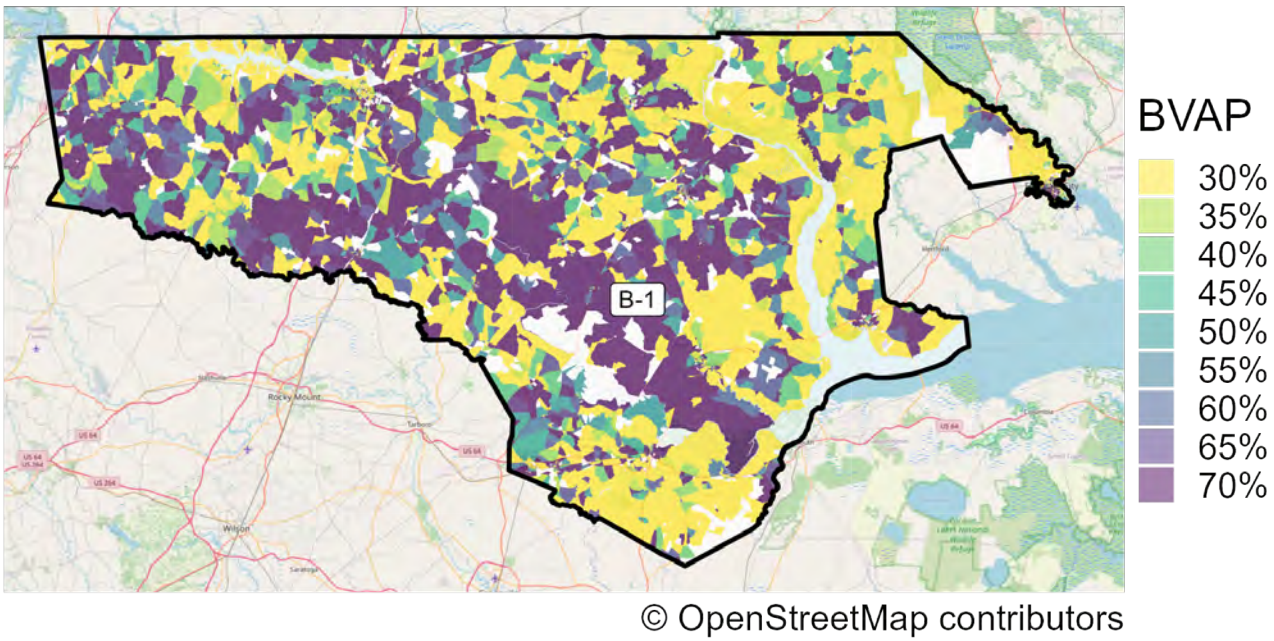


Figure 5: Proposed VRA District in Demonstration Map B, Block Level



We can also view the data at a VTD level:

Figure 6: Proposed VRA District in Demonstration Map B, VTD Level

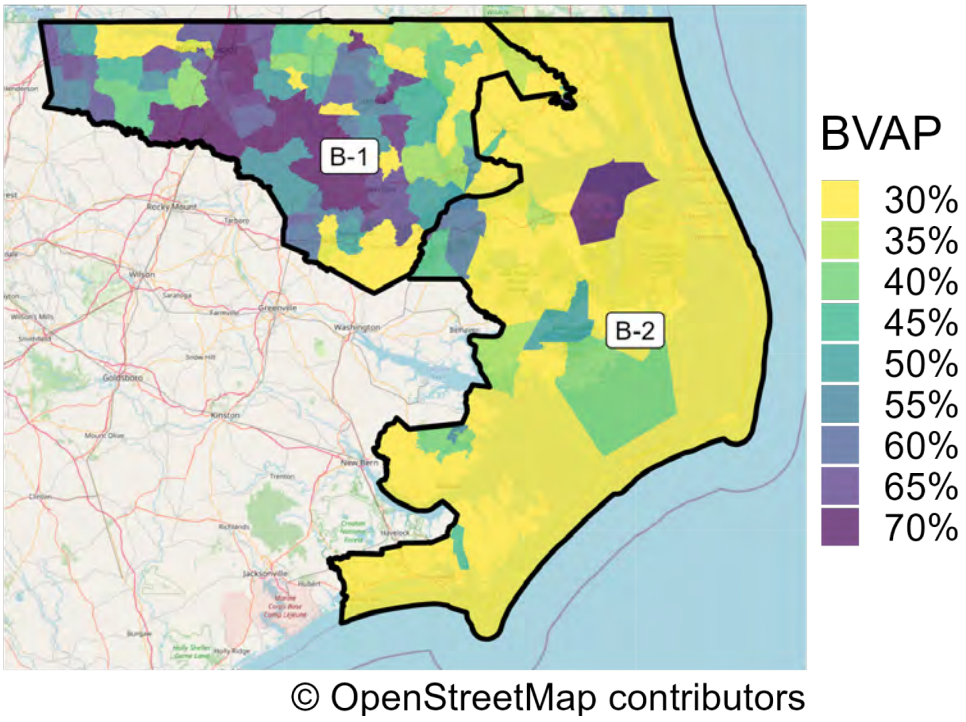
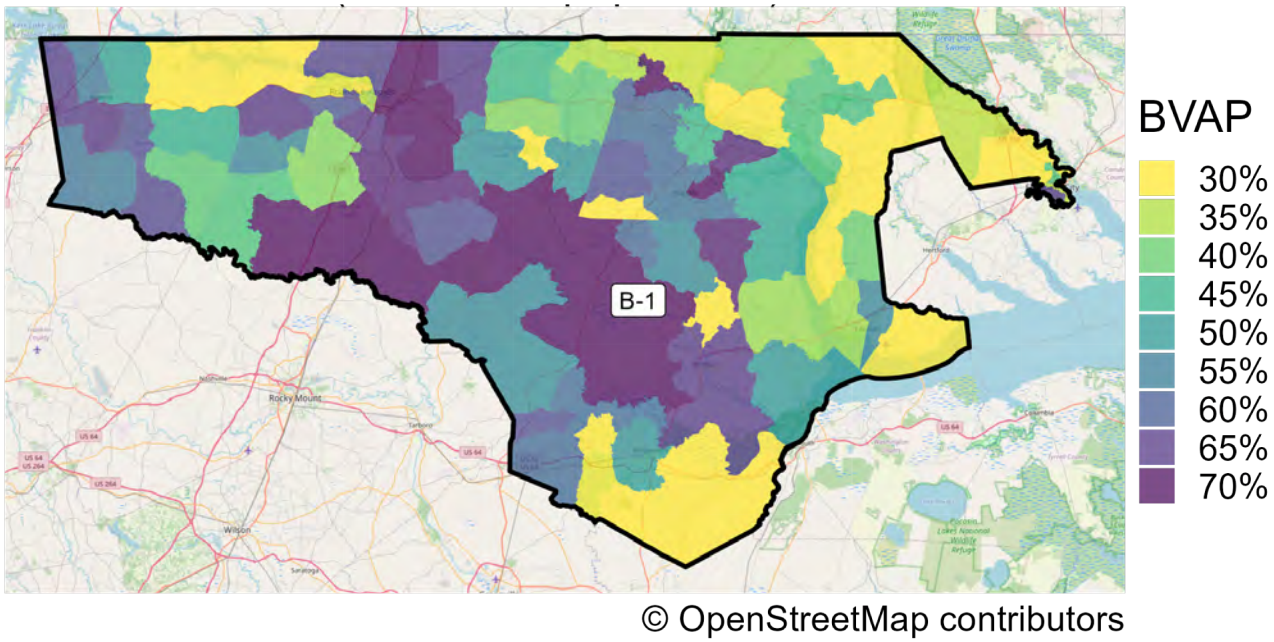


Figure 7: Proposed VRA District in Demonstration Map B, VTD Level



Finally, we can better see the distribution of residents using dot density maps:

Figure 8: Proposed VRA District in Demonstration Map B, Dot Density Map

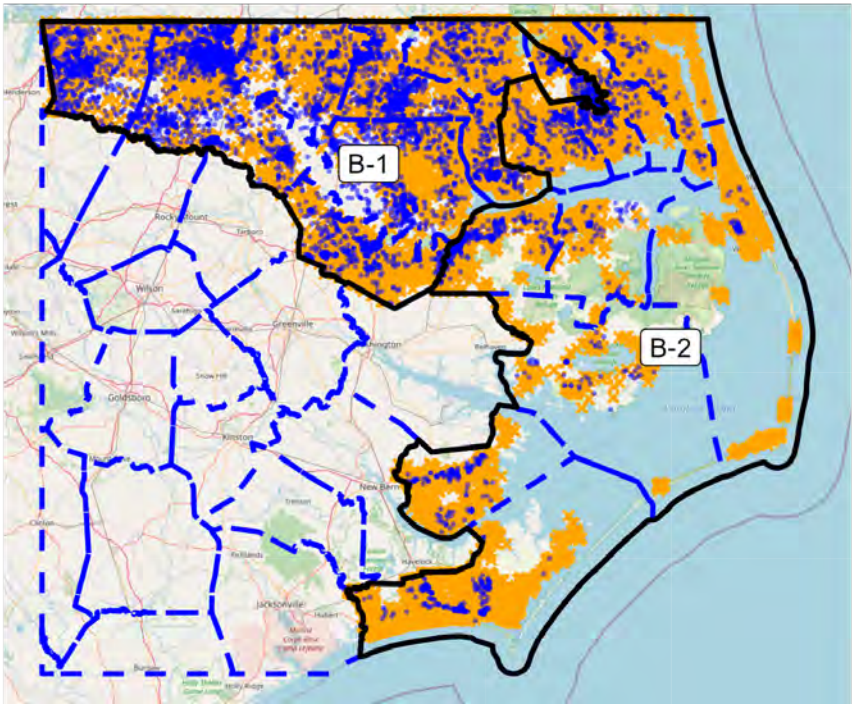
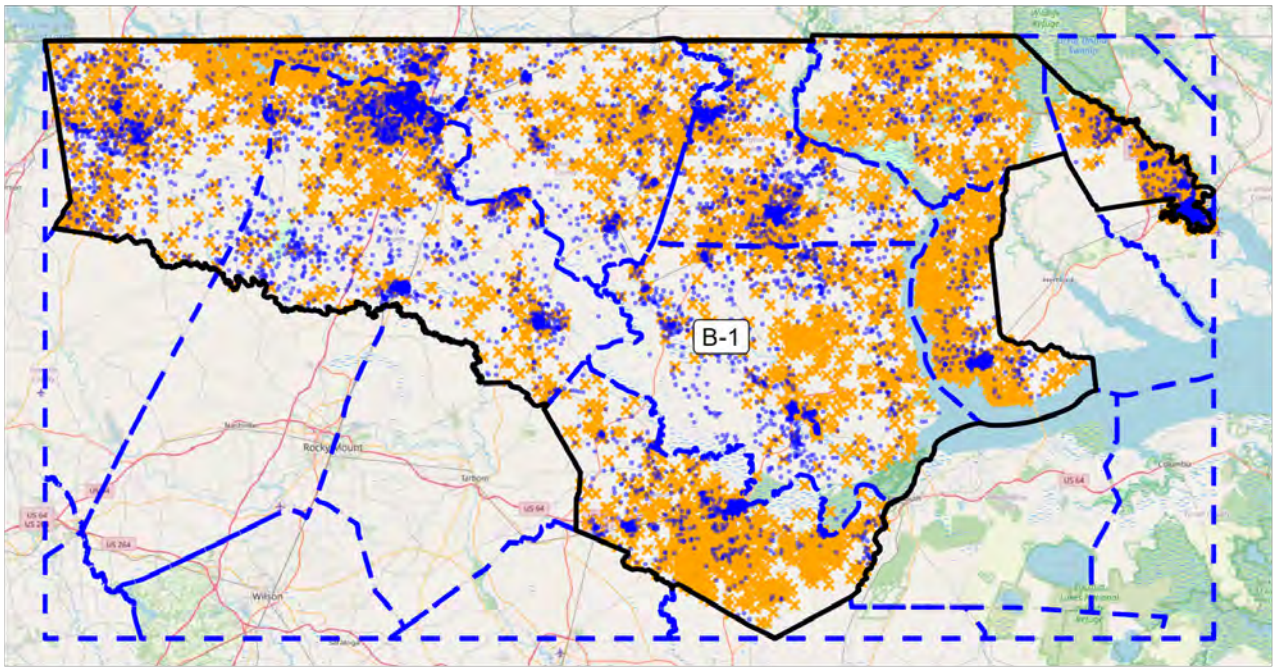


Figure 9: Proposed VRA District in Demonstration Map B, Dot Density Map



4 Conclusion

I declare under penalty of perjury under the laws of the State of Ohio that the foregoing is true and correct to the best of my knowledge and belief.

Executed on 22 December, 2023 in Delaware, Ohio.

Sean Trende

Exhibit 1

SEAN P. TRENDE
1146 Elderberry Loop
Delaware, OH 43015
strende@realclearpolitics.com

EDUCATION

Ph.D., The Ohio State University, Political Science, 2023. Dissertation titled *Application of Spatial Analysis to Contemporary Problems in Political Science*, September 2023.

M.A.S. (Master of Applied Statistics), The Ohio State University, 2019.

J.D., Duke University School of Law, *cum laude*, 2001; Duke Law Journal, Research Editor.

M.A., Duke University, *cum laude*, Political Science, 2001. Thesis titled *The Making of an Ideological Court: Application of Non-parametric Scaling Techniques to Explain Supreme Court Voting Patterns from 1900-1941*, June 2001.

B.A., Yale University, with distinction, History and Political Science, 1995.

PROFESSIONAL EXPERIENCE

Law Clerk, Hon. Deanell R. Tacha, U.S. Court of Appeals for the Tenth Circuit, 2001-02.

Associate, Kirkland & Ellis, LLP, Washington, DC, 2002-05.

Associate, Hunton & Williams, LLP, Richmond, Virginia, 2005-09.

Associate, David, Kamp & Frank, P.C., Newport News, Virginia, 2009-10.

Senior Elections Analyst, RealClearPolitics, 2010-present.

Columnist, Center for Politics Crystal Ball, 2014-17.

Visiting Scholar, American Enterprise Institute, 2018-present.

BOOKS AND BOOK CHAPTERS

Larry J. Sabato, ed., *The Red Ripple*, Ch. 15 (2023).

Larry J. Sabato, ed., *A Return to Normalcy?: The 2020 Election that (Almost) Broke America* Ch. 13 (2021).

Larry J. Sabato, ed., *The Blue Wave*, Ch. 14 (2019).

Larry J. Sabato, ed., *Trumped: The 2016 Election that Broke all the Rules* (2017).

Larry J. Sabato, ed., *The Surge:2014's Big GOP Win and What It Means for the Next Presidential Election*, Ch. 12 (2015).

Larry J. Sabato, ed., *Barack Obama and the New America*, Ch. 12 (2013).

Barone, Kraushaar, McCutcheon & Trende, *The Almanac of American Politics* 2014 (2013).

The Lost Majority: Why the Future of Government is up for Grabs – And Who Will Take It (2012).

PREVIOUS EXPERT TESTIMONY AND/OR DEPOSITIONS

Dickson v. Rucho, No. 11-CVS-16896 (N.C. Super. Ct., Wake County) (racial gerrymandering).

Covington v. North Carolina, No. 1:15-CV-00399 (M.D.N.C.) (racial gerrymandering).

NAACP v. McCrory, No. 1:13CV658 (M.D.N.C.) (early voting).

NAACP v. Husted, No. 2:14-cv-404 (S.D. Ohio) (early voting).

Ohio Democratic Party v. Husted, Case 15-cv-01802 (S.D. Ohio) (early voting).

Lee v. Virginia Bd. of Elections, No. 3:15-cv-357 (E.D. Va.) (early voting).

Feldman v. Arizona, No. CV-16-1065-PHX-DLR (D. Ariz.) (absentee voting).

A. Philip Randolph Institute v. Smith, No. 1:18-cv-00357-TSB (S.D. Ohio) (political gerrymandering).

Whitford v. Nichol, No. 15-cv-421-bbc (W.D. Wisc.) (political gerrymandering).

Common Cause v. Rucho, No. 1:16-CV-1026-WO-JEP (M.D.N.C.) (political gerrymandering).

Mecinas v. Hobbs, No. CV-19-05547-PHX-DJH (D. Ariz.) (ballot order effect).

Fair Fight Action v. Raffensperger, No. 1:18-cv-05391-SCJ (N.D. Ga.) (statistical analysis).

Pascua Yaqui Tribe v. Rodriguez, No. 4:20-CV-00432-TUC-JAS (D. Ariz.) (early voting).

Ohio Organizing Collaborative, et al v. Ohio Redistricting Commission, et al, No. 2021-1210 (Ohio) (political gerrymandering).

NCLCV v. Hall, No. 21-CVS-15426 (N.C. Sup. Ct.) (political gerrymandering).

Szeliga v. Lamone, Case No. C-02-CV-21-001816 (Md. Cir. Ct.) (political gerrymandering).

Montana Democratic Party v. Jacobsen, DV-56-2021-451 (Mont. Dist. Ct.) (early voting; ballot collection).

Carter v. Chapman, No. 464 M.D. 2021 (Pa.) (map drawing; amicus).

NAACP v. McMaster, No. 3:21-cv-03302 (D.S.C.) (racial gerrymandering).

Graham v. Adams, No. 22-CI-00047 (Ky. Cir. Ct.) (political gerrymandering).

Harkenrider v. Hochul, No. E2022-0116CV (N.Y. Sup. Ct.) (political gerrymandering).

LULAC v. Abbott, Case No. 3:21-cv-00259 (W.D. Tex.) (racial/political gerrymandering/VRA).

Moore et al., v. Lee, et al., (Tenn. 20th Dist.) (state constitutional compliance).

Agee et al. v. Benson, et al., (W.D. Mich.) (racial gerrymandering/VRA).

Faatz, et al. v. Ashcroft, et al., (Cir. Ct. Mo.) (state constitutional compliance).

Coca, et al. v. City of Dodge City, et al., Case No. 6:22-cv-01274-EFM-RES (D. Kan.) (VRA).

Milligan v. Allen, Case No. 2:21-cv-01530-AMM (N.D. Ala.) (VRA).

Nairne v. Ardoin, NO. 22-178-SDD-SDJ (M.D. La.) (VRA).

Robinson v. Ardoin, NO. 22-211-SDD-SDJ (M.D. La.) (VRA).

Republican Party v. Oliver, No. D-506-CV-2022-00041 (N.M. Cir. Ct. (Lea County)) (political gerrymandering).

COURT APPOINTMENTS

Appointed as Voting Rights Act expert by Arizona Independent Redistricting Commission (2020)

Appointed Special Master by the Supreme Court of Virginia to redraw maps for the Virginia House of Delegates, the Senate of Virginia, and for Virginia's delegation to the United States Congress for the 2022 election cycle.

Appointed redistricting expert by the Supreme Court of Belize in Smith v. Perrera, No. 55 of 2019 (one-person-one-vote).

INTERNATIONAL PRESENTATIONS AND EXPERIENCE

Panel Discussion, European External Action Service, Brussels, Belgium, Likely Outcomes of 2012 American Elections.

Selected by U.S. Embassies in Sweden, Spain, and Italy to discuss 2016 and 2018 elections to think tanks and universities in area (declined Italy due to teaching responsibilities).

Selected by EEAS to discuss 2018 elections in private session with European Ambassadors.

TEACHING

American Democracy and Mass Media, Ohio Wesleyan University, Spring 2018.

Introduction to American Politics, The Ohio State University, Autumns 2018, 2019, 2020, Spring 2018.

Political Participation and Voting Behavior, Springs 2020, 2021, 2022, 2023.

Survey Methodology, Fall 2022, Spring 2024.

PUBLICATIONS

James G. Gimpel, Andrew Reeves, & Sean Trende, "Reconsidering Bellwether Locations in U.S. Presidential Elections," Pres. Stud. Q. (2022) (forthcoming, available online at http://doi.org/10.1111/psq.12793).

REAL CLEAR POLITICS COLUMNS

Full archives available at `http://www.realclearpolitics.com/authors/sean_trende/`

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
EASTERN DIVISION

RODNEY D. PIERCE; *et al.*, Plaintiffs, v. THE NORTH CAROLINA STATE BOARD OF ELECTIONS; *et al.*, Defendants.	Case No. 4:23-cv-193-D

EXPERT REPORT OF JOHN R. ALFORD, Ph.D.

December 22, 2023

SCOPE OF INQUIRY

I have been retained by counsel for Legislative Defendants, as an expert to provide analysis related to *Gingles* prongs 2 and 3, and racially polarized voting as related to the challenge to the senate maps for the State of North Carolina. I have been asked by counsel to examine and respond to the report provided by the plaintiffs' expert, Dr. Matt Barreto, and the associated data and materials provided in disclosure. This is a limited initial analysis that pertains to the Plaintiffs' preliminary injunction motion. My rate of compensation in this matter is $600 per hour and my compensation does not depend on the outcome of this lawsuit.

SUMMARY

The election analysis provided by Dr. Barreto shows that Black and White voters provide different levels of support for Republican and Democratic candidates in North Carolina elections. The election analysis does not show the same pattern in response to variation in the race of the candidates. The high cohesion demonstrated by Black voters in these elections is not a function of Black voters coalescing around Black candidates but rather is a function of cohesive Black voter preferences for Democratic party candidates. Similarly, the tendency of White voters to vote for Republican candidates running against the preferred candidates of Black voters is not reserved for opposition to Black Democratic candidates but is instead cohesive support for Republican candidates no matter whether the candidates are White or Black. In addition, while the levels of White crossover voting vary by geography, the overall levels are high enough to suggest that majority Black districts are not necessary to allow the election of Black preferred candidates.

QUALIFICATIONS

I am a tenured full professor of political science at Rice University. In my over thirty-five years at Rice University, I have taught courses on redistricting, elections, political representation, voting behavior, and statistical methods at both the undergraduate and graduate levels. I am the author of numerous scholarly works on political behavior. These works have appeared in academic journals such as the *American Journal of Political Science, Journal of Politics, Science, Annual*

Review of Political Science, Legislative Studies Quarterly, Annals of the American Academy of Political and Social Science, Political Psychology, and *Political Research Quarterly*.

Over the last thirty-five 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 statistical issues in a variety of court cases in Alabama, Arkansas, Florida, Georgia, Kansas, Louisiana, Michigan, Mississippi, New Mexico, New York, Pennsylvania, Washington, and Wisconsin. The details of my academic background, including all publications in the last ten years, and my 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 CV (Appendix A).

DATA AND SOURCES

In preparing my report, I have reviewed the reports filed by the plaintiffs' expert Dr. Matt Barreto. I have also relied for my report on the election and voter data from the North Carolina State Board of Election that is cited by Dr. Barreto as the data he used as the basis for his report (page 2). I have attempted to match as closely as possible the data and analysis assumptions described by Dr. Barreto, however, despite a request for his data files and details of his analysis, Dr. Barreto declined to provide the actual data files he utilized. He also declined to provide the details of his EI procedures and options beyond what is described in his report. This added considerable time to the effort to confirm Dr. Barreto's results through a replication process and limited the scope of analysis for this report.

METHODS

Dr. Barreto and I both utilize the statistical technique of Ecological Inference (EI), developed originally by Professor Gary King.[1] EI is a more efficient technique intended specifically to improve on ecological regression (ER), the analysis technique previously used in

[1] King, Gary. (1997). *A Solution to the Ecological Inference Problem*. Princeton Univ. Press.

VRA lawsuits to assess voter cohesion and polarization. In a nutshell, traditional ecological regression is a mathematical technique for estimating the single best-fitting straight line that could be drawn to describe the relationship between two variables in a scatter plot. Applied to voting rights cases, the logic of ecological regression analysis is to determine to what degree, if any, the vote for a candidate increases in a linear fashion as the concentration of voters of a given ethnicity in the precincts increases. In contrast, King's EI procedure utilizes a method of bounds analysis, combined with a more traditional statistical method, to improve on standard ecological regression. While the details are mathematically complex, the differences mostly center on utilizing deterministic bounds information contained in individual precinct results that would not be exploited in ecological regression. In addition, EI relaxes the linear constraint that a traditional ecological regression analysis would impose on the pattern across precincts. This combination in EI of relaxing some assumptions and utilizing more information typically yields a more efficient estimation of cohesion and polarization when compared to standard ecological regression, although in many cases the results from EI are not substantively different than ER results for the same election data.

In its original form, King's EI could only be used to estimate voter support when there were two racial groups (e.g., White and Black) and two candidates, hence the label "2 x 2 EI" often applied to the original form. Often there are more than two racial groups (e.g., White, Black, and Latino), or more than two possible vote choices. To accommodate these situations, one would have to run an independent 2 x 2 EI analysis for each race of interest and for each candidate of interest (and for the no voting category), an approach suggested by King and labeled the 'iterative' approach to "R x C" (Rows by Columns) estimation.

Shortly after suggesting the iterative method, King published a more advanced theoretical approach to R x C estimation using a Multinomial-Dirichlet Bayesian technique. A fully Bayesian implementation of this approach was viewed by King and his coauthors as computationally impractical, given that it could take as long as a week or more to run a single model on the

computers available at that time, and they provided instead an implementation that relied on nonlinear least-squares.[2] Finally, in 2007 Lau and colleagues, taking advantage of advancements in computing technology, implemented the fully Bayesian estimation procedure outline by King, et al and provided a software module called "eiPack" that included the module 'ei.MD.bayes' that allowed for the estimation of the true Bayesian approach.[3] This is the implementation of EI R x C that I have relied on here, and is also one of the techniques relied on by Dr. Barreto for his analysis in this case.

ELECTION ANALYSIS

Dr. Barreto's report includes only a limited election analysis. It is typical in these cases to provide analysis covering the most recent decade of elections (here that would mean going back to at least 2014), but Dr. Barreto only covers 2020 and 2022, the two most recent general election cycles. In these two election years, Dr. Barreto provided individual election analysis results for 7 exogenous statewide elections in 2022, and 20 exogenous statewide elections in 2020. He reports EI estimates for "Republicans" and "Democrats" in state legislative elections, including the endogenous state Senate elections, only in two combined categories that he labels "NC State House" and "NC State Senate," without providing results for any individual election contests. In addition, Dr. Barreto provides no analysis of Democratic primary elections, something that is commonly included (see for example Appendix B, Dr Lisa Handley's inclusion of North Carolina Democratic primary elections in her 2019 expert report in *Common Cause v. Lewis*), Dr. Barreto also focuses on a limited geographic area. He reports statewide analysis, and analysis in what he terms the "10-county Northeast region," but he provides no discussion of how these 10 counties were selected, and no RPV analysis for any other areas or any existing districts.

Dr. Barreto sets the stage for his election analysis by offering his definition of Racially

[2] See Rosen, Jiang, King, and Tanner., *Bayesian and Frequentist Inference for Ecological Inference: The* R x C *Case*, 55 STATISTICA NEERLANDICA 134 (2001).
[3] See Lau, Olivia, Ryan T. Moore, and Michael Kellermann. "eiPack: Ecological Inference and Higher-Dimension Data Management," R News, vol.7, no. 2 (October 2007).

Polarized Voting. As he says "we next examine whether voters of different racial/ethnic backgrounds tend to prefer different or similar candidates in a wide range of electoral settings. The phenomenon called racially polarized voting (RPV) is defined as voters of different racial or ethnic groups exhibiting different candidate preferences in an election" (page 7). In line with this presumably social science definition, Dr. Barreto refers at several points (see paragraphs 11, 22, and 28 for example) to finding that there is "statistically significant" racially polarized voting in North Carolina. In contrast, he does not specifically discuss how his definition of statistically significant racially polarized voting might connect to any definition of *legally* significant racial polarized voting.

I began my analysis with an attempt to replicate selected results of the RxC Ecological Inference (EI) analysis provided by Dr. Barreto in this case, using the election and voter data sources he cited.[4] My initial replication results are substantively similar to those reported by Dr. Barreto, but do not match as precisely as would be expected based on my experience in multiple similar cases. This is not unexpected given the uncertainties occasioned by the above-mentioned absence of any disclosed input data files or any details of the EI analytical options used by Dr. Barreto for his report. To avoid confusion over whether my conclusions detailed below depend in any way on methodological or data differences, I will confine my analysis to the various numerical EI RxC results produced by Dr. Barreto in his report and appendices for my discussion throughout this report.

A. A Comparison of Two U.S. Senate Elections

In Table 1 below, I report the results for the two U.S. Senate elections included in Dr. Barreto's RPV analysis. The EI RxC estimates in Table 1 are taken directly from Dr. Barreto's Appendix A, Table A2, on pages 17-19 of his report.[5] The 2020 contest features a White Democrat

[4] The data programing required for the EI RxC analysis for this report was performed by my Rice colleague Dr. Randy Stevenson under my direction and control.

[5] In this table, and the tables that follow, the geographic groupings of Northeast 1, Northeast 2, and Pitt/Edgecombe are those defined and utilized by Dr. Barreto is his report.

running against a White Republican, while in the 2020 contest, a Black Democrat is running against a White Republican. In both contests Black voters are highly supportive of the Democratic candidate and White voters are supporting the Republican candidate. This is consistent with a polarized response to the party affiliation indicated on the ballot.

Table 1: U.S Senate Election EI RxC Estimates from Barreto's Appendix A

					Statewide		Northeast-1		Northeast-2		Pitt/Edgecombe	
Year	Office	Candidate	Party	Race	White	Black	White	Black	White	Black	White	Black
2020	U.S. Senate	Tillis	R	W	74	1	88	1	85	1	81	1
		Cunningham	D	W	26	99	12	99	15	99	18	99
2022	U.S. Senate	Budd	R	W	68	1	87	1	83	1	77	1
		Beasley	D	B	32	99	13	99	18	99	23	99
	Same Race Candidate Advantage				-6	0	-1	0	-2	0	-5	0

In contrast to the strong impact of candidate party affiliation, the race of the candidates does not appear to have a polarizing impact on vote choice. While we might expect Black voters to provide significantly more support to a Black candidate, Black voters are only three-tenths of one percent more supportive of the Black Democrat compared to the White Democrat statewide (and support is similarly essentially identical in the regional results). While we might expect White voters to show increased opposition to a Black candidate, White voters are not more likely to oppose a Black Democrat compared to a White Democrat, and in fact, are if anything slightly more supportive of the Black Democrat in 2022 compared to the White Democrat in 2020. Even these slight differences may reflect only the differences in the election context between a specific off-year like 2022 and an on-year like 2020.

B. A Comparison of Three State Court Elections

Table 2 below is similar to Table 1, but here the results are for the three 2020 State Supreme Court elections included in Dr. Barreto's RPV analysis. The EI RxC estimates in Table 2 are taken directly from Dr. Barreto's Appendix A, Table A2, on pages 17-19 of his report. While the U.S. Senate elections in Table 1 were in different years, these three State Supreme Court elections hold the election context constant, as all three are for the same office, on the same ballot, and in the

same November 2020 election. The contests for Seat #2 and Seat #4 feature a White Democrat running against a White Republican, while in the Seat #1 contest, a Black Democrat is running against a White Republican. In all three contests, Black voters are highly supportive of the Democratic candidate and White voters are supporting the Republican candidate. This is consistent with a polarized response to the party affiliation indicated on the ballot.

Table 2: State Supreme Court Elections EI RxC Estimates from Barreto's Appendix A

					Statewide		Northeast-1		Northeast-2		Pitt/Edgecombe	
Year	Office	Candidate	Party	Race	White	Black	White	Black	White	Black	White	Black
2020	Supreme Court #1	Newby	R	W	73	1	87	1	83	1	80	1
		Beasley	D	B	27	99	13	99	17	99	20	99
2020	Supreme Court #2	Berger	R	W	74	1	87	1	84	1	81	1
		Inman	D	W	26	99	12	99	16	99	19	99
2020	Supreme Court #4	Barringer	R	W	75	1	87	1	84	1	80	0
		Davis	D	W	25	99	14	99	17	99	20	99
		Average for White Democrats			26	99	13	99	16	99	19	99
		Black Democrat			27	99	13	99	17	99	20	99
		Same Race Candidate Advantage			-1	0	0	0	0	0	0	0

In contrast to the strong impact of candidate party affiliation, here, as was the case for the U.S. Senate elections, the race of the candidates does not appear to have a polarizing impact on vote choice. While we might expect Black voters to provide significantly more support to a Black candidate, Black voter support for the Black Democrat compared to the average Black voter support for the White Democrats, statewide and in the regional results, is essentially identical. While we might expect White voters to show increased opposition to a Black candidate, White voters are not more likely to oppose a Black Democrat compared to a White Democrat, with support for the Black Democrat essentially identical to the support for the White Democrats in these contests.

C. A Comparison of Five State Appeals Court Elections

Table 3 below is similar to Tables 1 and 2, but here the results are for the five 2020 State Appeals Court elections included in Dr. Barreto's RPV analysis. The EI RxC estimates in Table 3 are again taken directly from Dr. Barreto's Appendix A, Table A2, on pages 17-19 of his report. Again, these five State Appeals Court elections hold the election context constant, as all five are

for the same office, on the same ballot, and in the same November 2020 election. The contests for Seats #4, #6, and #13 feature a White Democrat running against a White Republican. The Seat #7 contest features a Black Democrat running against a White Republican, while the Seat #5 contest features a White Democrat running against a Black Republican. In all five contests, Black voters are highly supportive of the Democratic candidate and White voters are supporting the Republican candidate. This is again consistent with a polarized response to the party affiliation indicated on the ballot.

Table 3: State Appeals Court Elections EI RxC Estimates from Barreto's Appendix A

					Statewide		Northeast-1		Northeast-2		Pitt/Edgecombe	
Year	Office	Candidate	Party	Race	White	Black	White	Black	White	Black	White	Black
2020	Appeals Court #4	Wood	R	W	75	1	88	1	85	1	83	1
		Shields	D	W	25	98	11	99	14	99	17	99
2020	Appeals Court #6	Dillon	R	W	76	1	88	1	85	1	83	1
		Styers	D	W	24	99	11	99	14	99	18	99
2020	Appeals Court #13	Griffin	R	W	75	1	87	1	85	1	81	1
		Brook	D	W	25	99	13	99	15	99	19	99
		White /White Republican Average			75	1	88	1	85	1	82	1
		White /White Democratic Average			25	99	12	99	15	99	18	99
2020	Appeals Court #7	Carpenter	R	W	75	1	88	1	85	1	82	1
		Young	D	B	25	99	12	99	15	99	18	99
2020	Appeals Court #5	Gore	R	B	75	1	88	1	85	1	82	1
		Cubbage	D	W	25	99	12	99	15	99	18	99

The almost exact similarity of the voting patterns here is notable. The Black Republican candidate in the Seat #5 contest gets no more Black voter support and no less White voter support than does the average White Republican candidate. The Black Democratic candidate in the Seat #7 contest gets no more Black voter support and no less White voter support than does the average White Democratic candidate.

D. All 2020 and 2022 Elections

Table 4 below is similar to Tables 1, 2, and 3, but here the results are for all of the 2020 election contests included in Dr. Barreto's RPV analysis. The EI RxC estimates in Table 4 are again taken directly from Dr. Barreto's Appendix A, Table A2, on pages 17-19 of his report. Three of the contests (Appeals Court #7, Labor Commissioner, and Supreme Court #1) feature a Black Democrat running against a White Republican. The Appeals Court #5 contest features a Black

Republican running against a White Democrat. The Lt. Governor contest features a Black Democrat running against a Black Republican. The remaining election contests involve White candidates from each party, except for the Treasurer contest, with an Asian Democrat, and the President/Vice President contest, where the Democratic Vice-Presidential candidate is Black (these two contests are not included in computing the average vote shares for White Democrats reported at the bottom of Table 4, and similarly the combined State House and State Senate contests are not included in any of the summary calculations as there is no racial information for the multiple candidates involved in these reported estimates).

In all 20 contests, Black voters are highly supportive of the Democratic candidate and White voters are supporting the Republican candidate. This is again consistent with a polarized response to the party affiliation indicated on the ballot. In contrast to the strong impact of candidate party affiliation, here, as was the case for the selected elections in the previous tables, the race of the candidates does not appear to have a polarizing impact on vote choice. In fact, the impact of the race of the candidates on both Black and White voters is essentially indetectable. The almost exact similarity of the voting patterns here is notable. The Black Republican candidates get no more Black voter support and no less White voter support than the average White Republican candidate. The Black Democratic candidates get no more Black voter support and no less White voter support than the average White Democratic candidate.

Table 4: All 2020 Elections EI RxC Estimates from Barreto's Appendix A

					Statewide		Northeast-1		Northeast-2		Pitt/Edgecombe	
Year	**Office**	**Candidate**	Party	Race	**White**	**Black**	**White**	**Black**	**White**	**Black**	**White**	**Black**
2020	Attorney General	O'Neill	R	W	73	1	86	1	83	1	79	1
		Stein	D	W	28	99	14	99	17	99	21	99
2020	Agriculture Commission	Troxler	R	W	78	1	92	1	88	1	86	1
		Wadsworth	D	W	22	99	8	99	11	99	14	99
2020	Appeals Court #13	Griffin	R	W	75	1	87	1	85	1	81	1
		Brook	D	W	25	99	13	99	15	99	19	99
2020	Appeals Court #4	Wood	R	W	75	1	88	1	85	1	83	1
		Shields	D	W	25	98	11	99	14	99	17	99
2020	Appeals Court #5	Gore	R	B	75	1	88	1	85	1	82	1
		Cubbage	D	W	25	99	12	99	15	99	18	99
2020	Appeals Court #6	Dillon	R	W	76	1	88	1	85	1	83	1
		Styers	D	W	24	99	11	99	14	99	18	99
2020	Appeals Court #7	Carpenter	R	W	75	1	88	1	85	1	82	1
		Young	D	B	25	99	12	99	15	99	18	99
2020	Auditor	Street	R	W	72	1	83	1	79	1	74	1
		Wood	D	W	29	99	17	99	22	99	26	99
2020	Governor	Forest	R	W	70	1	85	1	81	1	78	1
		Cooper	D	W	31	100	15	99	19	99	22	99
2020	Insurance Commission	Causey	R	W	76	1	86	1	84	1	83	1
		Goodwin	D	W	25	99	14	99	16	99	18	99
2020	Labor Commission	Dobson	R	W	74	1	87	1	84	1	81	1
		Holmes	D	B	26	99	13	99	16	99	19	99
2020	Lt. Governor	Robinson	R	B	75	1	89	1	86	1	83	1
		Holley	D	B	25	99	11	99	14	99	17	99
2020	President	Trump/Pence	R	W/W	73	1	89	1	85	1	81	1
		Biden/Harris	D	W/B	27	99	11	99	15	99	19	99
2020	Sec. of State	Sykes	R	W	71	1	83	1	80	1	77	1
		Marshall	D	W	29	99	17	99	20	99	23	99
2020	State Superintendent	Truitt	R	W	75	1	88	1	84	1	81	0
		Mangrum	D	W	25	98	12	99	15	99	19	99
2020	Supreme Court #1	Newby	R	W	73	1	87	1	83	1	80	1
		Beasley	D	B	27	99	13	99	17	99	20	99
2020	Supreme Court #2	Berger	R	W	74	1	87	1	84	1	81	1
		Inman	D	W	26	99	12	99	16	99	19	99
2020	Supreme Court #4	Barringer	R	W	75	1	87	1	84	1	80	0
		Davis	D	W	25	99	14	99	17	99	20	99
2020	Treasurer	Folwell	R	W	76	1	89	1	86	1	81	1
		Chatterji	D	A	24	99	11	99	14	99	19	99
2020	U.S. Senate	Tillis	R	W	74	1	88	1	85	1	81	1
		Cunningham	D	W	26	99	12	99	15	99	18	99
2020	NC State House	Republicans	R	x	75	1	84	1	83	1	82	1
		Democrats	D	x	25	99	16	99	17	99	18	99
2020	NC State Senate	Republicans	R	x	75	1	88	1	84	1	80	1
		Democrats	D	x	26	99	12	99	16	99	20	99
		All Republicans			74	1	87	1	84	1	81	1
		White Republicans			74	1	87	1	84	1	81	1
		Black Republicans			75	1	89	1	86	1	83	1
		All Democrats			26	99	13	99	16	99	19	99
		White Democrats			26	99	13	99	16	99	19	99
		Black Democrats			26	99	13	99	16	99	19	99

Table 5 below is similar to Table 4, but here the results are for all of the 2022 election

contests included in Dr. Barreto's RPV analysis. The EI RxC estimates in Table 5 are again taken directly from Dr. Barreto's Appendix A, Table A2, on pages 17-19 of his report. Three of the contests (U.S. Senate, State Appeals Court #8, and State Appeals Court #10) feature a Black Democrat running against a White Republican. The remaining four election contests involve White candidates from each party (the combined State House and State Senate contests are not included in any of the summary calculations as there is no racial information for the multiple candidates involved in these reported estimates).

Table 5: All 2022 Elections EI RxC Estimates from Barreto's Appendix A

					Statewide		Northeast-1		Northeast-2		Pitt/Edgecombe	
Year	Office	Candidate	Party	Race	White	Black	White	Black	White	Black	White	Black
2022	Appeals Court # 10	Tyson	R	W	70	1	88	1	83	1	79	1
		Adams	D	B	30	99	12	99	17	99	22	99
2022	Appeals Court # 11	Stading	R	W	70	1	87	1	83	1	78	1
		Jackson	D	W	30	99	13	99	17	99	22	99
2022	Appeals Court #8	Flood	R	W	69	1	86	1	83	1	78	1
		Thompson	D	B	31	99	14	99	17	99	22	99
2022	Appeals Court #9	Stroud	R	W	72	1	89	1	85	1	80	1
		Salmon	D	W	28	99	11	99	16	99	20	99
2022	Supreme Court #3	Dietz	R	W	69	1	87	1	83	1	79	1
		Inman	D	W	31	99	13	99	17	99	21	99
2022	Supreme Court #5	Allen	R	W	69	1	86	2	82	1	77	0
		Ervin	D	W	31	99	14	98	18	99	22	99
2022	U.S. Senate	Budd	R	W	68	1	87	1	83	1	77	1
		Beasley	D	B	32	99	13	99	18	99	23	99
2022	NC State House	Republicans	R	x	66	1	84	3	80	1	77	1
		Democrats	D	x	34	99	16	98	20	99	23	99
2022	NC State Senate	Republicans	R	x	62	18	88	1	83	1	79	1
		Democrats	D	x	38	82	12	99	17	99	22	99
		All Democrats			31	99	13	99	17	99	22	99
		White Democrats			30	99	13	99	17	99	21	99
		Black Democrats			31	99	13	99	17	99	22	99

In all 7 contests, Black voters are highly supportive of the Democratic candidate and White voters are supporting the Republican candidate. This is again consistent with a polarized response to the party affiliation indicated on the ballot. In contrast to the strong impact of candidate party affiliation, here, as was the case in the previous tables, the race of the candidates does not appear to have a polarizing impact on vote choice. In fact, the impact of the race of the candidates on both Black and White voters is essentially indetectable. The almost exact similarity of the voting patterns here is notable. The Black Republican candidates get no more Black voter support and no

less White voter support than the average White Republican candidate. The Black Democratic candidates get no more Black voter support and no less White voter support than the average White Democratic candidate.

F. District Performance

On pages 12 and 13 of his report, Dr. Barreto comments on the performance of various adopted and demonstration districts. As noted above, all of the Black-preferred candidates are also the Democratic candidates in the general elections Dr. Barreto considers. As such his assessment of the performance is simply the expected Democratic share of the general election vote in the district. Democratic majority districts will 'perform', and Republican majority districts will not. No where does he address the related issue of whether a 50% Black district (or any other Black population share threshold) is necessary for the district to perform for Black voters.

SUMMARY CONCLUSIONS

Dr. Barreto's report provided a limited analysis that showed that Black voters cohesively support candidates and that those candidates do not receive support from the majority of White voters. With no indication of the race or partisan affiliation of these candidates, it is difficult to determine anything more from his results. However, with that information added to his EI results, as was done for the tables above, it is clear that Black voters cohesively support Democratic candidates, and that the majority of White voters support Republican candidates.

In contrast, it is not the case that Dr. Barreto's election analysis supports the conclusion that Black voters cohesively support Black candidates, as they are no more likely to support a Black Democratic candidate than they are to support a White Democratic candidate, and similarly, no less likely to oppose a Black Republican candidate than they are to oppose a White Republican candidate. Similarly, it is not the case that a majority of White voters regularly oppose Black candidates, as they are no more likely to oppose a Black Democratic candidate than they are to oppose a White Democratic candidate, and similarly, no less likely to support a Black Republican candidate than they are to support a White Republican candidate.

Dr. Barreto suggests that somehow these highly apparent facts coming directly from his own analysis must by definition be ignored. In his discussion of racially polarized voting on page 7 of his report he states:

> *The phenomenon called racially polarized voting (RPV) is defined as voters of different racial or ethnic groups exhibiting different candidate preferences in an election. It means simply that voters of different racial or ethnic groups are voting in polar opposite directions, rather than in a multi-racial or multiethnic coalition. If some groups of voters are voting in coalition, RPV analysis will identify such a trend. Voters may vote for their candidates of choice for a variety of reasons, and RPV analysis is agnostic as to why voters make decisions. RPV analysis simply reports how voters are voting.*

But as the tables above make clear, an RPV analysis need not be limited in what it can reveal by arbitrarily blocking out useful information like the race and party affiliation of the candidates. Dr. Barreto may not believe those facts are relevant as a legal matter, but that does not alter the fact that they are conclusions that can be drawn reliably from an RPV analysis. This may be an inconvenient truth, but it is a truth, nonetheless. Dr. Barreto clearly believes that this fact pattern has, or at least should have, no legal significance, but that is not entirely clear. A Fifth Circuit appeals panel in *League of United Latin American Citizens v. Clements*, 999 F.2d 831 (Fifth Cir. 1993), explored this legal issue in some detail, writing:

> *A central issue here, one that divided the panel and one over which the parties vigorously disagree, concerns Gingles' white bloc voting inquiry and the closely related Zimmer factor directing courts to examine "the extent to which voting . . . is racially polarized." S.Rep. 417 at 29, reprinted in 1982 U.S. Code Cong. Admin.News at 206. As the Court in Gingles held, the question here is not whether white residents tend to vote as a bloc, but whether such bloc voting is "legally significant." Gingles, 478 U.S. at 55, 106 S.Ct. at 2768; Salas v. Southwest Texas Jr. College Dist., 964 F.2d 1542, 1553 (5th Cir. 1992). In finding a violation of § 2 in each of the nine challenged counties, the district court held that plaintiffs need only demonstrate that whites and blacks generally support different candidates to establish legally significant white bloc voting. Because "it is the difference between choices made by blacks and whites alone . . . that is the central inquiry of § 2," the court excluded evidence tending to prove that these divergent voting patterns were attributable to factors other than race as "irrelevant" and "legally [in]competent."*
>
> *On appeal, defendants contend that the district court erred in refusing to consider the nonracial causes of voting preferences they offered at trial. Unless the tendency among minorities and whites to support different candidates, and the accompanying losses by*

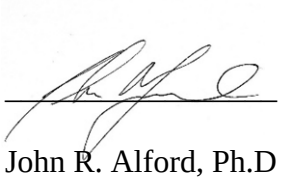
minority groups at the polls, are somehow tied to race, defendants argue, plaintiffs' attempt to establish legally significant white bloc voting, and thus their vote dilution claim under § 2, must fail. When the record indisputably proves that partisan affiliation, not race, best explains the divergent voting patterns among minority and white citizens in the contested counties, defendants conclude, the district court's judgment must be reversed.

We agree. The scope of the Voting Rights Act is indeed quite broad, but its rigorous protections, as the text of § 2 suggests, extend only to defeats experienced by voters "on account of race or color." Without an inquiry into the circumstances underlying unfavorable election returns, courts lack the tools to discern results that are in any sense "discriminatory," and any distinction between deprivation and mere losses at the polls becomes untenable. In holding that the failure of minority-preferred candidates to receive support from a majority of whites on a regular basis, without more, sufficed to prove legally significant racial bloc voting, the district court loosed § 2 from its racial tether and fused illegal vote dilution and political defeat. In so doing, the district court ignored controlling authorities: Whitcomb v. Chavis, 403 U.S. 124, 91 S.Ct. 1858, 29 L.Ed.2d 363 (1971), which established a clean divide between actionable vote dilution and "political defeat at the polls"; the 1982 amendments, enacted to restore a remedy in cases "where a combination of public activity and private discrimination have joined to make it virtually impossible for minorities to play a meaningful role in the electoral process," Hearings on the Voting Rights Act Before the Subcomm. on the Constitution of the Senate Comm. of the Judiciary, 97th Cong., 2d Sess. 1367-68 (statement of Prof. Drew Days) (emphasis added); and Thornburg v. Gingles, 478 U.S. 30, 106 S.Ct. 2752, 92 L.Ed.2d 25 (1986), where a majority of the Justices rejected the very test employed by the district court as a standard crafted to shield political minorities from the vicissitudes of "interest-group politics rather than a rule hedging against racial discrimination." Id. at 83, 106 S.Ct. at 2782 (White, J., concurring); id. at 101, 106 S.Ct. at 2792 (O'Connor, J., joined by Burger, C.J., Powell and Rehnquist, JJ., concurring). We must correct these errors.

Other courts and other circuits have reached different conclusions, and the issue of whether these concerns are relevant only at the Senate factors, or the totality of the circumstances, phase also remains a divided issue. The origin of Dr. Barreto's view of this as a legal matter is largely centered on Justice Brennen's Gingles' opinion, but as multiple courts have pointed out, that section of his opinion failed to unite a majority of the Court even then.

Whatever the legal significance, or lack of it, the analysis proved by Dr. Barreto, limited as it is in time and space, clearly demonstrates that the party affiliation of the candidates is sufficient to fully explain the divergent voting preferences of Black and White voters in the 2020 and 2022 North Carolina elections.

December 22, 2023.



John R. Alford, Ph.D

Appendix A

John R. Alford

Curriculum Vitae
December 2023

Dept. of Political Science
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Employment:

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. (2nd Edition under contract)

Articles:

"Political Orientations Vary with Detection of Androstenone," with Amanda Friesen, Michael Gruszczynski, and Kevin B. Smith. **Politics and the Life Sciences**. (Spring, 2020).

"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).

"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?"

"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).

"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 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 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 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.

"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.

"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.

"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.

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.

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, Vanderbilt 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

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:

Member, University Senate, 2021-2023.

Member, University Parking Committee, 2016-2022.

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.

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, Shafer et al v. Pearland ISD, racially polarized voting analysis, 2023.

Expert Witness, Nairne et al v. Ardoin, (Louisiana) racially polarized voting analysis, 2023.

Expert Witness, Petteway v. Galveston County, racially polarized voting analysis, 2023.

Expert Witness, Dixon v. Lewisville ISD, racially polarized voting analysis, 2022.

Expert Witness, Soto Palmer v. Hobbs, (Washington State), racially polarized voting analysis, 2022.

Expert Witness, Pendergrass v. Raffensperger, (Georgia State House and Senate), racially polarized voting analysis, 2022.

Expert Witness, LULAC, et al. v. Abbott, et al., Voto Latino, et al. v. Scott, et al., Mexican American Legislative Caucus, et al. v. Texas, et al., Texas NAACP v. Abbott, et al., Fair Maps Texas, et al. v. Abbott, et al., US v. Texas, et al. (consolidated cases) challenges to Texas Congressional, State Senate, State House, and State Board of Education districting, 2022.

Expert Witness, Robinson/Galmon v. Ardoin, (Louisiana), racially polarized voting analysis, 2022.

Expert Witness, Christian Ministerial Alliance et al v. Arkansas, racially polarized voting analysis, 2022.

Expert Witness, Johnson v. Wisconsin Elections Commission, 2022.

Expert Witness, Rivera, et al. v. Schwab, Alonzo, et al. v. Schwab, Frick, et al. v. Schwab, (consolidated cases) challenge to Kansas congressional map, 2022.

Expert Witness, Grant v. Raffensperger, challenge to Georgia congressional map, 2022

Expert Witness, Brooks et al. v. Abbot, challenge to State Senate District 10, 2022.

Expert Witness, Elizondo v. Spring Branch ISD, 2022.

Expert Witness, Portugal v. Franklin County, et al., challenge to Franklin County, Washington at large County Commissioner's election system, 2022.

Consulting Expert, Gressman Math/Science Petitioners, Pennsylvania Congressional redistricting, 2022.

Consultant, Houston Community College – evaluation of election impact for redrawing of college board election districts, 2022.

Consultant, Lone Star College – evaluation of election impact for redrawing of college board election districts, 2022.

Consultant, Killeen ISD – evaluation of election impact for redrawing of school board election districts, 2022.

Consultant, Houston ISD – evaluation of election impact for redrawing of school board election districts, 2022.

Consultant, Brazosport ISD – evaluation of election impact for redrawing of school board election districts, 2022.

Consultant, Dallas ISD – evaluation of election impact for redrawing of school board election districts, 2022.

Consultant, Lancaster ISD – redrawing of all school board member election districts including demographic analysis and redrawing of election districts, 2021.

Consultant, City of Baytown – redrawing of all city council member election districts including demographic analysis and redrawing of election districts, 2021.

Consultant, Goose Creek ISD – redrawing of all board member election districts including demographic analysis and redrawing of election districts, 2021.

Expert Witness, Bruni et al. v. State of Texas, straight ticket voting analysis, 2020.

Consulting Expert, Sarasota County, VRA challenge to district map, 2020.

Expert Witness, Kumar v. Frisco ISD, TX, racially polarized voting analysis, 2019.

Expert Witness, Vaughan v. Lewisville ISD, TX, racially polarized voting analysis, 2019.

Expert Witness, Johnson v. Ardoin, (Louisiana), racially polarized voting analysis, 2019.

Appendix B

Exhibit A

Providing Black Voters with an Opportunity to Elect Candidates of Choice to the North Carolina State Legislature: A Jurisdiction-Specific, Functional Analysis of Select House and Senate County Grouping

Lisa Handley

September 17, 2019

I. Scope of Report

I was asked by counsel for Plaintiffs in this matter to conduct an analysis of voting patterns in select state House and Senate county groupings in North Carolina and, if voting in an election contest is racially polarized, to calculate the percent black voting age population necessary to provide black voters with an opportunity to elect their candidate of choice. In one county (Robeson County), I also performed these calculations for the Native American population.

The district-specific, functional analysis I performed is specific to those counties and districts presented in this report. Particularly given the differences in voting patterns that exist across North Carolina, my analysis cannot be extrapolated to other counties and districts not analyzed in this report, including districts that currently have African American representatives that I did not evaluate.

II. Professional Experience

I have over thirty years of experience as a voting rights and redistricting expert. I have advised scores of jurisdictions and other clients on minority voting rights and redistricting-related issues and have served as an expert in more than 25 voting rights cases. My clients have included state and local jurisdictions, the U.S. Department of Justice, national civil rights organizations, and such international organizations as the United Nations.

I have been actively involved in researching, writing and teaching on subjects relating to voting rights, including minority representation, electoral system design and redistricting. I co-authored a book, *Minority Representation and the Quest for Voting Equality* (Cambridge University Press, 1992), and co-edited a volume, *Redistricting in Comparative Perspective* (Oxford University Press, 2008), on these subjects. In addition, my research on these topics has appeared in peer-reviewed journals such as *Journal of Politics*, *Legislative Studies Quarterly*,

American Politics Quarterly, *Journal of Law and Politics*, and *Law and Policy*, as well as in edited books and law reviews.

I am one of the co-authors of the 2001 *North Carolina Law Review* article, "Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence,"[1] relied on by one of Defendants' experts in this case, Dr. Jeffrey Lewis. In addition to writing this piece, I have used the approach outlined in it to conduct numerous district-specific, functional analyses both for interested jurisdictions and in the context of litigation. For example, most recently, I was asked to ascertain the percent black voting age population that would allow black voters an opportunity to elect their candidates of choice in the challenged 3rd Congressional District in Virginia,[2] and the 11th Congressional District in Ohio.[3]

I have been a principal of Frontier International Electoral Consulting since co-founding the company in 1998. Frontier IEC provides electoral assistance in transitional democracies and post-conflict countries. In addition, I am a Visiting Research Academic at Oxford Brookes University in Oxford, United Kingdom. Attached to the end of this report is a copy of my *curriculum vitae*. I am being compensated at a rate of $300 an hour for my work in this case.

III. County Groupings and Elections Examined

Conclusions about racially polarized voting and the minority population percentage needed to elect minority-preferred candidates in the context of polarization should be drawn from as many elections as applicable and feasible. It is well-established that racial voting patterns in elections that include minority candidates are the most probative for determining if voting is racially polarized.[4] In addition, elections for the office at issue in a lawsuit – in this

[1] Bernard Grofman, Lisa Handley and David Lublin, "Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," *North Carolina Law Review*, volume 79 (5), June 2001.

[2] *Personhuballah v. Alcorn*, No. 3:13-cv-678 (E.D. Va.).

[3] *Ohio A. Philip Randolph Inst. v. Householder*, No. 1:18-CV-357 (S.D. Ohio).

[4] See, for example, *League of United Latin Am. Citizens, Council No. 4434 v. Clements*, 999 F.2d 831, 864 (5th Cir. 1993); *Nipper v. Smith*, 39 F.3d 1494, 1540 (11th Cir. 1994).

case, state House and state Senate seats – are the most relevant,[5] both for determining if voting is usually polarized and for calculating the percent minority population needed to elect minority-preferred candidates to the office if voting is racially polarized.

I analyzed all contested state legislative general and Democratic primary election contests since 2014 that included an African American candidate in the state Senate and state House county groupings at issue in this case.[6] I also examined all recent statewide state and federal elections – general elections and Democratic primaries – that included an African American candidate. A statewide analysis of voting patterns in two of these contests, the 2016 primary elections for Governor and Supervisor of Public Instruction, indicated that voting was not polarized – both black and white voters supported the winning white candidate.[7] I therefore focused my analysis on the following 2016 statewide contests for each state House and Senate grouping at issue: the general elections for Lieutenant Governor and State Treasurer and the Democratic primaries for Lieutenant Governor, Attorney General, Commissioner of Labor and Treasurer. In addition, I analyzed the 2012 general elections for U.S. President and Lieutenant Governor, and the 2012 Democratic primaries for Lieutenant Governor and Commissioner of Labor. While these contests were polarized statewide, they were not necessarily polarized in every given county grouping. Some of the primary elections considered had three or more candidates; although black voters often coalesced around a single candidate in some of these contests, in other instances they did not and determining a candidate of choice was not possible.

The 13 state House groupings I examined were: (1) Alamance; (2) Anson and Union; (3) Cabarrus, Davie, Montgomery, Richmond, Rowan and Stanly; (4) Cleveland and Gaston; (5) Columbus, Pender and Robeson; (6) Cumberland; (7) Duplin and Onslow; (8) Forsyth and Yadkin; (9) Franklin and Nash; (10) Guilford; (11) Lenoir and Pitt; (12) Mecklenburg; and (13)

[5] Courts have long held that endogenous elections are more probative in assessing minority vote dilution. Examples include *Bone Shirt V. Hazeltine* 461 F.3d 1011, 1020 (8th Cir. 2006); *Clay v. Bd. of Educ. of City of St. Louis,* 90 F.3d 1357, 1362 (8th Cir. 1996); *Magnolia Bar Ass'n, Inc. v. Lee* 994 F.2d 1143, 1149 (5th Cir. 1993); *Jenkins v. Red Clay Consol. School 25 Dist. Bd. of Educ.* 4 F.3d 1103 (3d Cir. 1993); *Citizens for a Better Gretna v. City of Gretna, La.* 834 F.2d 496, 502 (5th Cir. 1987); *Rodriguez v. Harris Cnty, Texas* 964 19 F. Supp. 2d 686, 759 (S.D. Tex. 2013).

[6] In North Carolina, most black voters choose to vote in Democratic primaries as opposed to Republican primaries.

[7] This report does not address the extent to which the 2016 Democratic primaries for Governor and Supervisor of Public Instruction were racially polarized in any specific county grouping.

Wake. The 5 state Senate county groupings were: (1) Alamance, Guilford and Randolph; (2) Davie and Forsyth; (3) Duplin, Harnett, Johnson, Lee, Nash and Sampson; (4) Franklin and Wake; and (5) Mecklenburg.[8]

IV. Success Rates of African American State Legislative Candidates

While African American state legislators have generally been elected from legislative districts with substantial black populations within the county groupings at issue here, these districts are usually not majority black in voting age population and in many cases are below or substantially below 40% in voting age population. Table 1 lists all state Senate districts under the 2017 Senate Plan that had a BVAP greater than 30% and encompass at least one county at issue in the remedial phase of this case. The table also shows the results of the 2018 election in each of these districts.

Table 1: State Senators Elected from Districts with Black Voting Age Populations Greater the 30% in Relevant Counties

2017 Senate Plan District	Percent Black Voting Age Population	State Senator	Race	Party	Share of two-party vote in 2018 general election	Senate County Grouping
38	48.46%	Mujtaba Mohammed	O	D	81.7%	Mecklenburg
28	43.64%	Gladys Robinson	AA	D	75.2%	Alamance-Guilford-Randolph
37	42.73%	Jeff Jackson	W	D	79.6%	Mecklenburg
21	42.15%	Ben Clark	AA	D	70.9%	Cumberland-Hoke
32	39.18%	Paul Lowe, Jr.	AA	D	72.9%	Davie-Forsyth
40	38.88%	Joyce Waddell	AA	D	75.6%	Mecklenburg
14	38.85%	Dan Blue	AA	D	73.4%	Franklin-Wake
7	33.93%	Louis Milford Pate, Jr.	W	R	53.9%	Lenoir-Wayne
5	32.94%	Don Davis	AA	D	55.3%	Greene-Pitt
19	31.69%	Kirk DeViere	W	D	50.4%	Cumberland-Hoke

If the Democratic candidate represented the candidate of choice for African Americans in each of the general elections listed in Table 1, then African Americans were able to elect the

[8] Mecklenburg results are reported under the state House grouping but the discussion of course holds for the state Senate as well.

candidate of their choice in 9 of the 10 districts with a BVAP in excess of 30% in relevant Senate county groupings, and the majority of these successful candidates were African Americans. To be clear, Table 1 merely displays past election results; this analysis is not meant to suggest that a BVAP of 30% is a bright-line percentage that is either necessary or sufficient for African Americans to elect a candidate of their choice, either in the county groupings depicted in Table 1 or in other counties not in Table 1. Indeed, Table 1 does not include results for numerous counties across the State because those counties do not currently have state Senate districts with a BVAP above 30% or are not at issue in the remedial phase of this lawsuit. The results could differ significantly for such other counties.

Table 2 provides the same information as Table 1 for all state House districts under the 2017 House Plan that had a BVAP greater than 30% and encompass at least one county at issue in the remedial phase of this case.

Table 2: State Representative Elected from Districts with Black Voting Age Populations Greater the 30% in Relevant Counties

2017 House Plan District	Percent Black Voting Age Population	State Representative	Race	Party	Share of two-party vote in 2018 general election	House County Grouping
101	50.8%	Carolyn Logan	AA	D	78.7%	Mecklenburg
43	50.0%	Elmer Floyd	AA	D	74.1%	Cumberland
99	49.5%	Nasif Majeed	AA	D	82.4%	Mecklenburg
107	49.4%	Kelly Alexander	AA	D	100.0%	Mecklenburg
38	48.3%	Yvonne Lewis Holley	AA	D	84.1%	Wake
72	47.5%	Derwin Montgomery	AA	D	79.1%	Forsyth-Yadkin
8	44.9%	Kandie D. Smith	AA	D	64.6%	Lenoir-Pitt
33	44.2%	Rosa U. Gill	AA	D	78.7%	Wake
102	43.9%	Becky Carney	W	D	83.4%	Mecklenburg
58	42.7%	Amos Quick	AA	D	76.8%	Guilford
42	42.2%	Marvin W. Lucas	AA	D	78.1%	Cumberland
25	40.7%	James D. Gailliard	AA	D	53.3%	Franklin-Nash
61	40.3%	Mary Price Harrison	W	D	73.3%	Guilford
60	40.1%	Cecil Brockman	AA	D	69.0%	Guilford
21	39.0%	Raymond Smith Jr.	AA	D	52.6%	Bladen-Greene-Harnett-Johnston-Lee-Sampson-Wayne
88	38.4%	Mary G. Belk	W	D	75.6%	Mecklenburg
57	38.4%	Ashton Clemmons	W	D	67.6%	Guilford
106	38.0%	Carla Cunningham	AA	D	80.6%	Mecklenburg
12	37.4%	Chris Humphrey	W	R	56.1%	Lenoir-Pitt

2017 House Plan District	Percent Black Voting Age Population	State Representative	Race	Party	Share of two-party vote in 2018 general election	House County Grouping
71	36.6%	Evelyn Terry	AA	D	72.7%	Forsyth-Yadkin
39	35.5%	Darren Jackson	W	D	67.9%	Wake
100	32.1%	John Autry	W	D	70.8%	Mecklenburg
44	31.8%	Billy Richardson	W	D	56.6%	Cumberland
22	31.5%	William Brisson	W	R	43.3%	Bladen-Greene-Harnett-Johnston-Lee-Sampson-Wayne
92	30.2%	Chaz Beasley	AA	D	70.0%	Mecklenburg

As in the Senate, if the Democratic candidate represented the candidate of choice for African Americans in each of the general elections listed in Table 2, then African Americans were able to elect the candidate of their choice in 23 of the 25 districts with a BVAP in excess of 30% in relevant House county groupings, and the majority of these successful candidates were African Americans. In addition to the African American state representatives listed above, there are two elected from districts that do not have substantial black populations: Sydney Batch is elected from a 14.3% BVAP district in Wake County, and Brandon Lofton is elected from a 6.2% BVAP district in Mecklenburg County. The same clarifications apply, however, for this analysis as with the Senate. This analysis is not meant to suggest that a BVAP of 30% is a bright-line percentage that is either necessary or sufficient for African Americans to elect a candidate of their choice, either in the county groupings depicted in Table 2 or in other counties not in Table 2. As before, Table 2 does not include results for numerous counties across the State because those counties do not currently have state House districts with a BVAP above 30% or are not at issue in the remedial phase of this lawsuit, and the results could differ significantly for such other counties.

V. Analyzing Voting Patterns by Race

In addition to the above analysis, I have conducted a systematic analysis to determine what percent BVAP would be required to provide black voters the opportunity to elect their preferred candidates in state legislative as well as statewide contests in relevant county groupings. For each election analyzed, I report the participation rates of black and white voters, as well as the percentage of black and white support for the black-preferred candidate. If the

contest is polarized, with black and white voters supporting different candidates, I indicate the percentage BVAP required, given the participation rates and voting patterns of black and white voters, for the black-preferred candidate to win in the given election contest.

In this report, I discuss black and white voting behavior but in reality the analysis considers black and non-black voting behavior. While in most areas of the state, non-black voters are mostly white, this is not true of Roberson County, which has a substantial Native American population. I consider not only blacks and non-blacks, but Native Americans and non-Native Americans for this county.

The voting patterns of black and white voters must be estimated using statistical techniques because direct information about how individuals have voted is simply not available – the race of the voter is not, of course, obtainable from the ballot. I used a standard statistical technique to produce estimates, King's ecological inference (EI).[9] Developed by Professor Gary King in the 1990s and later refined, this statistical method utilizes the method of bounds and incorporates maximum likelihood statistics to produce estimates of voting patterns by race.[10] King's EI has been introduced and accepted in numerous district court proceedings.[11]

The database used for this analysis matched demographic data for each election precinct – white, black and Native American VAP, based on the 2010 census – with the election results for the precinct.[12] The use of VAP data made sense in this case since participation as a product

[9] The statistical package I used was r for the ecological regression analysis and eiCompare for r for the ecological inference analysis.

[10] The following is an example of how the method of bounds works: if a given precinct has 100 voters, of which 75 are black and 25 are white, and the African American candidate received 80 votes, then at least 55 of the black voters (80 – 25) voted for the African American candidate and at most all 75 did. (The method of bounds is less useful for calculating estimates for white voters, as anywhere between none of the white voters and all of the white voters could have voted for the candidate.) These bounds are used when calculating EI estimates but not when using ecological regression.

[11] A list of cases in which King's EI was used can be found in Justin de Benedictis-Kessner, "Evidence in Voting Rights Litigation: Producing Accurate Estimates of Racial Voting Patterns," *Election Law Journal*, vol.14 (4), 2015. This article also discusses other statistical approaches to analyzing voting patterns by race in voting rights litigation, including homogeneous precinct analysis and ecological regression (ER).

[12] Some of the precinct VAP data could not be matched with election results. The degree to which this occurred varied by county, with some counties assigning early and absentee votes back to the election precinct and other counties not doing this. In addition, if counties combined or split election precincts for an election, these results could not be matched up to the correct demographic data.

of VAP is required to determine the percentage of black VAP necessary for the candidate of choice of black voters to win the given election.

VI. Calculating the Percent Black Voting Age Population Needed to Elect Black-Preferred Candidate

The percentage minority population needed to create a district that provides minorities with an opportunity to elect their candidates of choice varies depending on the specific location of the district – there is no single universal or statewide target that can be applied. A district-specific, functional analysis that considers the participation rates and voting patterns of whites and minorities must be conducted to determine the percentage of the minority population that is needed to provide minority voters with an opportunity to elect candidates of their choice. Relying on the estimates of black and white voting behavior produced by the racial bloc voting analysis I conducted, in each election contest that was polarized, I calculated the percent BVAP needed for the candidate of choice of African Americans to win. When voting is not racially polarized in a given election and area, we need not calculate the percent BVAP needed for the black-preferred candidate to win since black and white voters in that instance support the same candidate.

A. Equalizing Turnout

Black turnout as a percentage of BVAP is generally somewhat lower than white turnout as a percentage of WVAP in the general elections analyzed. For example, according to Table 3, below, in Alamance in the 2016 general election for Lieutenant Governor, 44.7% of blacks of voting age turned out and cast a vote, while 70.6% of whites of voting age cast a vote.[13] Using these turnout percentages, I can calculate the percent black VAP needed to ensure that black voters

[13] In this example, turnout actually refers to the percent of black and white VAP voting for the highest statewide office on the ticket that included an African American candidate in the general election – the race for Lieutenant Governor.

comprise at least 50 percent of the voters for this election.[14] The equalizing percentage is calculated mathematically by solving the following equation:

Let
M = the proportion of the district's voting age population that is black
W = 1-M = the proportion of the district's voting age population that is white
A = the proportion of the black voting age population that turned out to vote
B = the proportion of the white voting age population that turned out to vote

Therefore,
M(A) = the proportion of the population that is black and turned out to vote (1)
(1-M)B = the proportion of total population that is white and turned out to vote (2)

To find the value of M that is needed for (1) and (2) to be equal, (1) and (2) are set as equal and we solve for M algebraically:

$M(A) = (1 - M)B$
$M(A) = B - M(B)$
$M(A) + M(B) = B$
$M (A + B) = B$
$M = B/ (A+B)$

Thus, for the example above, A= .447, B = .706 and M = .706/ (.447 + .706). Therefore, a 61.2% BVAP district would produce equalized black and white turnout in the 2016 general election in this county grouping.

The equalizing percentage for BVAP in Democratic primaries in North Carolina is much lower than in general elections. This is because most black voters choose to vote in Democratic primaries while white voters tend to divide their votes between the Democratic and Republican primaries. For example, for the same county (Alamance), black turnout as a percentage of BVAP was 14.9 and white turnout as a percentage of WVAP was 8.3.[15] (See Table 3, below.) The percentage BVAP required to equalize black and white turnout in the Democratic primary in this instance in only 35.8%.

[14] For a more in-depth discussion of equalizing turnout see Kimball Brace, Bernard Grofman, Lisa Handley and Richard Niemi, "Minority Voting Equality: The 65 Percent Rule in Theory and Practice," *Law and Policy*, 10 (1), January 1988.

[15] Turnout in this example is actually the percent of black and white VAP voting for the highest statewide office on the ticket that included an African American candidate in the statewide Democratic primary – the race for Lieutenant Governor.

Equalizing the number of black and white voters who vote in an election would only be necessary to ensure that minority voters had the opportunity to elect their candidates of choice if white voters are rarely willing to vote for black-preferred candidates. If a sufficient percentage of white voters, consistently demonstrate a willingness to support black-preferred candidates, then the number of black voters need not equal the number of white voters who vote in a given election – white voters will "crossover" and help elect the black-preferred candidates. A district-specific, functional analysis should take into account not only differences in the turnout rates of black and white voters, but also the voting patterns of white and black voters.[16]

B. Incorporating Minority Cohesion and White Crossover Voting

Estimates of voting patterns by race for of the elections analyzed for this report indicate that many were not racially polarized – black voters and white voters supported the same candidates. When black and white voters support different candidates, however, close attention must be paid not only to the turnout rates of black and white voters, but to the percentage of white voters who are willing to support black-preferred candidates, as well as how to cohesive black voters are in their support of these candidates. When there are very high levels of minority cohesion and consistent, sufficient white crossover voting, the district need not be majority black in composition to provide black voters with a realistic opportunity to elect their candidates of choice to office.

To illustrate this mathematically, consider a district that has 2000 persons of voting age, 50% of whom are black and 50% of whom are white. Using the estimates of black and white turnout and support for the black-preferred candidate in the 2016 general election in Alamance County for Lieutenant Governor, black turnout is lower than white turnout: 44.7% of blacks of voting age and 70.6% of whites of voting age turned out to vote. (See Table 3, below.) This means that, for our illustrative election, there will be 447 black voters and 706 white voters. As indicated by Table 3, 99.3% of the black voters supported the black-preferred candidate (Linda

[16] For an in-depth discussion of this approach to creating effective minority districts, see Bernard Grofman, Lisa Handley and David Lublin, "Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," *North Carolina Law Review*, volume 79 (5), June 2001.

Coleman) and 31.2% of the white voters supported her in this election.[17] Thus, in our example, black voters will cast 444 of their 447 votes for the black-preferred candidate and their other 3 votes for the other candidates; white voters will cast 220 of their 706 votes for the black-preferred candidate and 486 votes for the other candidates. The black-preferred candidate will receive 57.6% of the vote under these conditions:

Black and White Voters	**Votes for Black-Preferred Candidate**	**Votes for Other Candidates**
Black 1000 x .447 = 447	447 x .993 = 444	447 x .007 = 3
White 1000 x .706 = 706	706 x .312 = 220	706 x .688 = 486
1153	664	486

The black-preferred candidate will garner a total of 664 votes (444 from black voters and 220 from white voters), while the other candidates will receive 486 votes (3 from black voters and 486 from white voters). The black-preferred candidate will win the election with 664 of the 1153 votes cast in the contest, or 57.6% of the vote in this hypothetical 50% black VAP district. The black-preferred candidate in this election actually received only 40.5% of the vote in Alamance County because the county is slightly less than 19% black in VAP. But as the column labeled "percent of vote B-P cand would have received if district was 50% black VAP" indicates, Coleman would have received 57.6% of the vote if the BVAP was 50%. And, as the last column in Table 3 indicates, in a district with at least 37.6% BVAP, the black-preferred candidate would win.[18]

The Democratic primary for Lieutenant Governor in 2016 in Alamance was not racially polarized. (There were 4 candidates and thus, while Coleman received only 43% of the white vote, she was the top choice of white voters; she received 87% of the black votes cast.) However, the 2016 Democratic primary race for Attorney General was polarized in the county so this will serve as the basis for the illustrative example. (See Table 3, below.) The turnout rate for

[17] The 2016 general election for Lieutenant Governor included three candidates: Dan Forest, a white Republican, Linda Coleman, an African-American Democrat, and Libertarian candidate Jacki Cole. Dan Forest won the election with 51.8% of the statewide vote.

[18]

Black and White Voters	**Votes for Black-Preferred Candidate**	**Votes for Other Candidates**
Black 376 x .447 = 168	168 x .993 = 167	168 x .007 = 1
White 624 x .706 = 441	441 x .312 = 138	441 x .688 = 303
609	305	304

blacks was 14.4%; for whites it was 8.4%. Marcus Williams, the African American candidate, received 99.4% of the black vote and 39.0% of the white vote. However, because black turnout was so much higher than white turnout (many white voters cast ballots in the Republican primary rather than the Democratic primary), Williams would have received over 77% of the vote (176 out of 228 votes) in a 50% BVAP district:

Black and White Voters	**Black-Preferred Candidate Votes**	**White-Preferred Candidate Votes**
Black 1000 x .144 = 144	144 x .994 = 143	144 x .006 = 1
White 1000 x .084 = 84	84 x .390 = 33	84 x .610 = 67
228	176	52

Williams carried Alamance County, which has a 18.9% BVAP, with 51.1% of the vote and would have won the primary in any district with at least 11.5% BVAP under these conditions.

VII. Results of Analysis

Tables 3 through 22 report the results of my racial bloc voting analysis and, if the contest is racially polarized, indicate the percentage of vote a black-preferred candidate would receive in each House and Senate grouping of interest, given the turnout rates of blacks and whites and the degree of black cohesion and white crossover voting for each election, in a 50%, 45%, 40% and 35% black VAP district. Each table considers a different state House county grouping (Tables 3-15) or state Senate county grouping (Tables 16-19). In each table, the first column indicates the relevant election, the second column indicates either the BVAP of the House or Senate district (for state legislative elections) or the BVAP of the entire counties that comprise the county grouping (for the statewide elections analyzed). The third and fourth columns then reflect the race and share of the vote received by the candidate of choice of African Americans.

Of significance, the column with the headers “black voters: B-P” and “white voters: B-P” represent my calculations of the share of black voters and white voters who supported the black-preferred candidate (i.e. the “B-P” candidate) in that election. If the numbers in these columns are both greater than 50%, it means that voting in that particular election was not racially polarized because a majority of blacks and whites both supported the candidate of choice of

African Americans. The final column calculates that percent BVAP needed for the black-preferred candidate to have won the election if that election was racially polarized.[19]

In addition to analyzing polarized voting across each of the county groupings at issue, I also analyzed racially polarized voting within specific individual counties, including Forsyth County (Table 20) and Pitt County (Table 21). Moreover, I conducted a racial polarization analysis for Robeson County, but for Native Americans rather than African Americans (Table 22). For this analysis, I divided all voters into Native Americans and non-Native Americans and then analyzed whether and to what extent voting was polarized between these two groups.

VIII. Conclusion

My analysis of voting patterns by race in recent statewide and state legislative contests in select North Carolina state House and Senate county groupings indicates that a number of election contests were not racially polarized. When the election contest was polarized, I used the estimates of black and white turnout, and black and white votes for the black-preferred candidate to calculate the percent BVAP required for black voters to elect their preferred candidate in that election. The black percentage needed varies both by grouping – hence the importance of conducting a district-specific analysis – and the contest considered. In some county groupings such as Guilford, Cumberland, Forsyth-Yadkin, and Mecklenburg in the House, as well as Franklin-Wake, Davie-Forsyth, and Mecklenburg in the Senate, there are many elections that were not racially polarized because a majority of whites supported the candidate of choice of African Americans. Substantially greater white bloc voting was found in other county groupings.

[19] The column titled "actual vote of B-P candidate" represent the raw percentage of the vote received by that candidate as reported by the State Board of Elections, and not the share of the two-party vote.

Table 3

House Grouping: Alamance	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 64	18.5	AA	42.2	24.5	96.7	3.3	55.7	38.2	61.8	56.1	53.7	51.5	49.4	36.5
2016														
2016 Lt Governor	18.9	AA	40.5	44.7	99.3	0.7	70.6	31.2	68.8	57.6	54.4	51.4	48.5	37.6
2016 Treasurer	18.9	AA	43.2	43.2	99.9	0.1	68.1	34.5	65.5	59.9	56.8	53.9	51.2	32.9
2014														
none														
2012														
2012 President	18.9	AA	42.7	46.0	99.5	0.5	67.4	33.1	66.9	60.0	56.9	53.9	50.9	33.3
2012 Lt Governor	18.9	AA	43.3	45.3	99.9	0.1	65.2	33.9	66.1	61.0	57.8	54.8	51.9	31.7
Democratic primaries														
2018														
State House 64	18.5	AA	46.8	5.4	87.8	12.2	3.5	35.9	64.1	67.4	64.9	62.2	59.5	19.5
2016														
2016 Lt Governor	18.9	AA	52.3	14.9	87.0	13.0	8.3	43.0	57.0	71.3	69.2	67.0	64.6	not polarized, 1st choice same
2016 Attn General	18.9	AA	51.1	14.4	99.4	0.6	8.4	39.0	61.0	77.1	74.3	71.2	68.0	11.5
2016 Comm of Labor	18.9	AA	50.3	14.1	83.6	16.4	8.4	40.7	59.3	67.6	65.5	63.4	61.1	14.2
2016 Treasurer	18.9	AA	57.4	14.7	60.2	39.8	8.4	54.7	45.3	58.2	57.9	57.7	57.4	not polarized
2014														
none														
2012														
2012 Lt Governor	18.9	AA	49.2	10.3	52.8	47.2	9.7	48.6	51.4	50.8	50.6	50.3	50.1	32.0
2012 Comm of Labor	18.9	AA	33.5	10.3	58.6	41.4	9.1	26.5	73.5	43.5	41.9	40.3	38.7	70.7

Table 4

House Grouping: Anson and Union	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
none														
2016														
2016 Lt Governor	16.5	AA	32.2	55.8	100.0	0.0	75.1	23.1	76.9	55.9	52.2	48.6	45.1	42.0
2016 Treasurer	16.5	AA	34.6	54.6	99.6	0.4	73.4	27.3	72.7	58.1	54.7	51.3	48.0	38.1
2014														
none														
2012														
2012 President	16.5	AA	37.4	34.7	98.3	1.7	70.6	30.0	70.0	52.5	49.6	46.9	44.3	45.7
2012 Lt Governor	16.5	AA	39.1	33.3	99.0	1.0	68.0	32.0	68.0	54.0	51.2	48.5	46.0	42.9
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	16.5	AA	40.8	23.0	87.4	12.6	6.2	10.6	89.4	71.1	68.4	65.3	61.8	22.1
2016 Attn General	16.5	AA	58.3	21.3	92.7	7.3	6.1	48.1	51.9	82.8	81.1	79.3	77.2	1.3
2016 Comm of Labor	16.5	AA	55.3	22.9	63.5	36.5	5.9	49.7	50.3	60.7	60.2	59.7	59.0	0.6
2016 Treasurer	16.5	AA	56.5	19.4	84.3	15.7	5.9	47.6	52.4	75.7	74.4	72.8	71.1	2.1
2014														
none														
2012														
2012 Lt Governor	16.5	AA	47.2	25.0	63.2	36.8	4.6	34.7	65.3	58.8	58.0	57.0	55.9	17.6
2012 Comm of Labor	16.5	AA	37.2	25.0	51.7	48.3	4.1	26.9	73.1	48.2	47.6	46.8	45.9	69.0

Table 5

House Grouping: Cabarrus, Davie, Montgomery, Richmond, Rowan, and Stanly	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 82	14.1	AA	47.3	34.8	99.9	0.1	64.2	38.9	61.1	60.3	57.6	55.1	52.7	29.1
2016														
2016 Lt Governor	15.5	AA	32.9	34.7	100.0	0.0	67.7	26.7	73.3	51.5	48.4	45.4	42.6	47.6
2016 Treasurer	15.5	AA	36.1	36.1	99.5	0.5	65.7	29.2	70.8	54.1	51.0	48.0	45.3	43.3
2014														
none														
2012														
2012 President	15.5	AA	37.6	58.9	99.6	0.4	62.4	28.1	71.9	62.8	59.3	55.7	52.2	31.9
2012 Lt Governor	15.5	AA	39.1	55.0	97.8	2.2	60.3	30.6	69.4	62.7	59.3	56.0	52.7	30.8
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	15.5	AA	45.2	14.7	73.4	26.6	6.0	37.6	62.4	63.0	61.5	59.8	58.0	17.8
2016 Attn General	15.5	AA	55.5	14.0	87.9	12.1	5.8	46.6	53.4	75.8	74.0	72.1	69.9	3.6
2016 Comm of Labor	15.5	AA	53.6	12.5	78.2	21.8	5.7	45.8	54.2	68.1	66.6	65.0	63.3	6.4
2016 Treasurer	15.5	AA	53.6	12.2	74.5	25.5	5.8	48.8	51.2	66.2	65.1	63.8	62.4	2.3
2014														
none														
2012														
2012 Lt Governor	15.5	AA	55.0	22.4	55.1	44.9	7.0	56.0	44.0	55.3	55.3	55.4	55.4	not polarized
2012 Comm of Labor	15.5	AA	34.0	20.2	51.6	48.4	7.0	29.2	70.8	45.8	44.9	43.9	42.8	81.8

Table 6

House Grouping: Cleveland and Gaston	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 110	15.3	AA	32.2	29.5	95.7	4.3	52.7	27.8	72.2	52.2	49.1	46.3	43.5	46.5
State Senate 43	14.8	AA	33.8	20.8	100.0	0.0	29.8	26.4	73.6	56.7	53.2	49.8	46.5	40.3
2016														
2016 Lt Governor	16.2	AA	31.8	37.1	99.6	0.4	63.9	23.1	76.9	51.2	47.7	44.4	41.3	48.3
2016 Treasurer	16.2	AA	36.0	37.2	99.6	0.4	61.8	27.0	73.0	54.3	51.0	47.8	44.8	43.5
2014														
none														
2012														
2012 President	16.2	AA	37.6	45.7	99.8	0.2	59.7	28.1	71.9	59.2	55.7	52.3	49.0	36.5
2012 Lt Governor	16.2	AA	39.1	43.7	100.0	0.0	57.9	30.0	70.0	60.1	56.7	53.4	50.2	34.6
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	16.2	AA	44.4	17.7	81.4	18.6	4.5	23.5	76.5	69.7	67.7	65.4	62.8	17.7
2016 Attn General	16.2	AA	57.5	17.7	95.5	4.5	4.4	29.6	70.4	82.4	80.1	77.6	74.7	10.0
2016 Comm of Labor	16.2	AA	53.8	17.3	64.3	35.7	4.3	49.7	50.3	61.4	60.9	60.3	59.7	0.5
2016 Treasurer	16.2	AA	52.6	17.3	59.5	40.5	4.4	47.2	52.8	57.0	56.6	56.1	55.6	7.0
2014														
none														
2012														
2012 Lt Governor	16.2	AA	59.0	13.6	55.1	44.9	7.5	58.8	41.2	56.4	56.6	56.8	57.0	not polarized
2012 Comm of Labor	16.2	AA	32.0	12.8	40.8	59.2	7.0	31.3	68.7	37.4	37.0	36.5	36.0	no clear B-P cand

Table 7

House Grouping: Columbus, Pender and Robeson	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 46	24.7	AA	36.7	27.0	82.3	17.7	36.3	26.3	73.7	50.2	47.5	44.9	42.3	49.7
State Senate 13	26.4	AA	37.5	30.5	88.3	11.7	34.7	20.8	79.2	52.4	49.0	45.7	42.5	46.4
2016														
2016 Lt Governor	24.5	AA	43.0	48.4	92.4	7.6	47.5	28.0	72.0	60.5	57.3	54.1	50.8	33.7
2016 Treasurer	24.5	AA	47.0	45.8	94.1	5.9	47.1	33.9	66.1	63.6	60.6	57.6	54.6	27.3
2014														
none														
2012														
2012 President	24.5	AA	49.9	63.9	93.8	6.2	46.3	36.6	63.4	69.8	66.9	64.0	61.0	18.1
2012 Lt Governor	24.5	AA	57.4	61.8	99.6	0.4	44.7	46.0	54.0	77.1	74.4	71.7	68.9	5.5
Democratic primaries														
2018														
State Senate 13	26.4	AA	69.2	11.3	94.4	5.6	5.4	52.3	47.7	80.8	78.9	76.8	74.6	not polarized
2016														
2016 Lt Governor	24.5	AA	41.5	12.8	59.8	40.2	8.7	31.5	68.5	48.3	47.0	45.5	44.0	56.2
2016 Attn General	24.5	AA	60.1	12.7	86.3	13.7	8.8	46.5	53.5	70.0	68.0	66.0	63.9	6.3
2016 Comm of Labor	24.5	AA	38.5	12.9	51.6	48.4	8.7	32.6	67.4	43.9	43.0	42.0	41.0	88.0
2016 Treasurer	24.5	AA	64.8	12.9	81.5	18.5	8.7	52.7	47.3	69.9	68.5	67.0	65.5	not polarized
2014														
State Senate 13	26.4	AA	27.3	20.3	46.5	53.5	12.8	19.3	80.7	36.0	34.7	33.3	31.8	4 cands, no clear B-P cand
2012														
Lt Governor	24.5	AA	50.5	25.6	54.5	45.5	12.0	50.2	49.8	53.1	52.9	52.7	52.5	not polarized
Comm of Labor	24.5	AA	27.9	21.6	39.7	60.3	11.5	26.8	73.2	35.2	34.6	34.0	33.3	no clear B-P cand

Table 8A

House Grouping: Cumberland	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 42	42.2	AA	76.1	40.2	100.0	0.0	37.8	56.8	43.2	79.1	76.9	74.7	72.5	not polarized
State House 43	50.0	AA	74.1	36.4	99.3	0.7	36.8	50.1	49.9	74.6	72.1	69.7	67.2	not polarized
2016														
2016 Lt Governor	37.1	AA	55.8	47.3	99.5	0.5	60.2	32.7	67.3	62.1	58.8	55.7	52.6	30.8
2016 Treasurer	37.1	AA	58.0	47.3	99.9	0.1	58.9	36.6	63.4	64.8	61.7	58.7	55.7	25.1
State Senate 19	22.5	AA	43.6	48.3	83.8	16.2	57.4	29.4	70.6	54.3	51.6	49.0	46.4	42.0
2014														
none														
2012														
2012 President	37.1	AA	59.5	55.7	99.9	0.1	55.8	39.7	60.3	69.8	66.8	63.8	60.7	17.1
2012 Lt Governor	37.1	AA	61.6	55.5	99.6	0.4	54.3	42.4	57.6	71.3	68.4	65.6	62.7	13.0

Table 8B

House Grouping: Cumberland	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 43	50	AA	79.2	7.3	94.4	5.6	6.8	65.0	35.0	80.2	78.7	77.3	75.8	not polarized
2016														
2016 Lt Governor	37.1	AA	59.1	15.4	72.1	27.9	9.9	48.6	51.4	62.9	61.8	60.6	59.3	not polarized, 1st choice same
2016 Attn General	37.1	AA	66.7	15.3	90.7	9.3	9.8	43.2	56.8	72.2	69.8	67.4	64.9	9.7
2016 Comm of Labor	37.1	AA	46.0	15.4	63.1	36.9	9.8	34.8	65.2	52.1	50.7	49.3	47.8	42.5
2016 Treasurer	37.1	AA	52.3	15.3	74.5	25.5	11.0	39.2	60.8	59.7	58.0	56.2	54.3	24.1
2014														
none														
2012														
2012 Lt Governor	37.1	AA	70.7	11.9	73.5	26.5	12.8	68.5	31.5	70.9	70.7	70.4	70.2	not polarized
2012 Comm of Labor	37.1	AA	42.8	11.5	43.7	56.3	10.0	42.2	57.8	43.0	42.9	42.9	42.8	not polarized, 1st choice same

Table 9

House Grouping: Duplin and Onslow	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 4	22.6	AA	34.9	29.7	99.0	1.0	34.1	15.1	84.9	54.2	50.0	45.9	41.9	45.0
2016														
2016 Lt Governor	18.5	AA	33.5	32.4	99.2	0.8	53.3	18.0	82.0	48.7	45.0	41.4	38.0	51.7
2016 Treasurer	18.5	AA	35.7	32.1	99.6	0.4	51.2	21.1	78.9	51.4	47.7	44.2	40.9	48.2
2014														
none														
2012														
2012 President	18.5	AA	38.3	47.6	98.7	1.3	47.0	22.7	77.3	60.9	57.1	53.3	49.5	35.6
2012 Lt Governor	18.5	AA	41.9	46.1	97.3	2.7	44.9	28.0	72.0	63.1	59.6	56.2	52.7	31.2
Democratic primaries														
2018														
2016														
2016 Lt Governor	18.5	AA	46.7	11.1	91.4	8.6	4.9	32.5	67.5	73.4	70.8	67.9	64.9	15.7
2016 Attn General	18.5	AA	64.6	11.0	92.8	7.2	4.6	43.4	56.6	78.2	76.1	73.8	71.2	6.1
2016 Comm of Labor	18.5	AA	51.0	11.1	71.5	28.5	4.6	46.0	54.0	64.0	62.9	61.7	60.4	7.2
2016 Treasurer	18.5	AA	54.9	11.2	94.9	5.1	4.6	41.9	58.1	79.5	77.2	74.7	72.0	6.9
2014														
none														
2012														
2012 Lt Governor	18.5	AA	52.2	19.3	59.9	40.1	4.8	47.6	52.4	57.5	57.0	56.6	56.0	5.7
2012 Comm of Labor	18.5	AA	24.8	18.9	39.8	60.2	4.2	28.5	71.5	37.7	37.4	37.0	36.5	no clear B-P cand

Table 10

House Grouping: Forsyth and Yadkin	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 71	36.6	AA	72.7	24.7	98.7	1.3	57.0	63.4	36.6	74.1	72.6	71.3	70.1	not polarized
State House 72	47.5	AA	79.1	31.8	99.6	0.4	49.4	69.6	30.4	81.3	79.9	78.6	77.3	not polarized
State Senate 32	39.2	AA	72.9	28.5	99.2	0.8	50.5	65.0	35.0	77.3	75.8	74.3	73.0	not polarized
2016														
2016 Lt Governor	23.6	AA	48.2	40.5	99.3	0.7	70.9	29.1	70.9	54.6	51.5	48.5	45.6	42.6
2016 Treasurer	23.6	AA	47.7	40.1	99.5	0.5	69.6	28.2	71.8	54.3	51.0	48.0	45.1	43.3
2014														
State House 71	45.5	AA	76.6	25.8	99.3	0.7	39.6	62.6	37.4	77.1	75.4	73.7	72.1	not polarized
2012														
2012 President	23.6	AA	50.6	48.9	98.8	1.2	47.0	32.7	67.3	66.4	63.1	59.8	56.4	25.4
2012 Lt Governor	23.6	AA	50.9	46.4	98.5	1.5	44.9	34.3	65.7	66.9	63.7	60.5	57.3	23.9
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	23.6	AA	55.6	14.6	81.3	18.7	11.4	44.3	55.7	65.1	63.2	61.3	59.4	not polarized, 1st choice same
2016 Attn General	23.6	AA	45.1	14.5	66.2	33.8	11.0	38.0	62.0	54.0	52.6	51.2	49.7	36.0
2016 Comm of Labor	23.6	AA	60.5	14.0	84.0	16.0	11.3	52.0	48.0	69.7	68.1	66.5	64.8	not polarized
2016 Treasurer	23.6	AA	59.1	14.6	71.1	28.9	10.5	53.2	46.8	63.6	62.7	61.8	60.9	not polarized
2014														
none														
2012														
2012 Lt Governor	23.6	AA	58.2	16.1	75.3	24.7	9.3	50.8	49.2	66.3	65.2	63.9	62.6	not polarized
2012 Comm of Labor	23.6	AA	38.9	15.1	51.6	48.4	8.9	33.5	66.5	44.9	44.0	43.1	42.1	85.9

Table 11

House Grouping: Franklin and Nash	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 25	40.7	AA	51.5	35.4	98.1	1.9	64.2	34.2	65.8	56.9	54.1	51.4	48.8	37.3
2016														
2016 Lt Governor	33.0	AA	46.5	51.3	99.9	0.1	70.5	24.0	76.0	56.0	52.3	48.8	45.4	41.7
2016 Treasurer	33.0	AA	48.7	53.5	100.0	0.0	68.3	26.8	73.2	59.0	55.4	51.9	48.5	37.2
State House 7	50.7	AA	67.8	52.9	99.5	0.5	68.3	44.8	55.2	68.7	66.0	63.4	60.9	11.9
State House 25	16.1	AA	31.9	53.8	84.6	15.4	62.8	20.8	79.2	50.2	47.1	44.0	40.9	49.6
2014														
none														
2012														
2012 President	33.0	AA	48.6	53.8	99.1	0.9	64.4	26.6	73.4	59.6	56.0	52.5	49.1	36.3
2012 Lt Governor	33.0	AA	51.2	52.5	99.1	0.9	62.8	30.3	69.7	61.6	58.2	54.9	51.7	32.4
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	33.0	AA	66.5	17.4	94.9	5.1	8.6	35.7	64.3	75.3	72.6	69.7	66.6	13.6
2016 Attn General	33.0	AA	39.5	17.9	63.1	36.9	8.1	29.5	70.5	52.6	51.1	49.5	47.8	41.5
2016 Comm of Labor	33.0	W	74.8	17.0	72.5	27.5	8.8	75.7	24.3	73.6	73.7	73.9	74.1	not polarized
2016 Treasurer	33.0	AA	65.1	17.7	88.0	12.0	8.7	37.4	62.6	71.3	69.0	66.5	63.9	14.0
2014														
none														
2012														
2012 Lt Governor	33.0	AA	58.2	16.8	68.3	31.7	10.3	50.8	49.2	61.6	60.8	59.9	59.0	not polarized
2012 Comm of Labor	33.0	AA	36.2	16.0	50.8	49.2	9.7	19.1	80.9	38.8	37.3	35.7	34.0	95.9

Table 12A

House Grouping: Guildford	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 58	42.7	AA	76.8	38.0	99.4	0.6	47.8	62.8	37.2	79.0	77.2	75.5	73.8	not polarized
State House 60	40.1	AA	69.0	35.2	98.9	1.1	52.5	57.1	42.9	73.9	71.9	70.0	68.2	not polarized
State Senate 28	43.6	AA	75.3	34.9	99.2	0.8	58.0	64.5	35.5	77.5	75.9	74.4	73.0	not polarized
2016														
2016 Lt Governor	32.1	AA	56.6	44.1	98.7	1.3	78.4	42.8	57.2	62.9	60.4	58.0	55.8	20.8
2016 Treasurer	32.1	AA	57.6	42.1	99.3	0.7	76.9	44.9	55.1	64.1	61.7	59.4	57.3	15.9
State Senate 28	56.5	AA	83.9	59.7	99.4	0.6	59.7	62.3	37.7	80.9	79.0	77.1	75.3	not polarized
2014														
State House 61	15.3	AA	32.8	38.1	98.6	1.4	63.8	24.3	75.7	52.1	48.7	45.5	42.4	47.0
2012														
2012 President	32.1	AA	57.8	49.6	99.9	0.1	76.4	43.7	56.3	65.8	63.2	60.7	58.3	16.3
2012 Lt Governor	32.1	AA	58.0	47.3	100.0	0.0	74.0	44.3	55.7	66.0	63.4	60.9	58.6	15.1

Table 12B

House Grouping: Guilford	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 58	42.7	AA	80.2	10.0	98.4	1.6	7.3	65.2	34.8	84.4	82.7	81.0	79.3	not polarized
2016														
2016 Lt Governor	32.1	AA	57.9	19.2	71.8	28.2	13.5	49.2	50.8	62.5	61.4	60.2	59.0	not polarized
2016 Attn General	32.1	AA	54.6	18.9	86.5	13.5	13.2	38.3	61.7	66.7	64.3	61.8	59.3	18.3
2016 Comm of Labor	32.1	AA	61.3	18.9	78.5	21.5	12.3	49.6	50.4	67.1	65.7	64.2	62.7	0.9
2016 Treasurer	32.1	AA	54.3	18.4	63.7	36.3	12.5	46.2	53.8	56.6	55.8	54.9	53.9	15.9
State House 58	51.1	AA	71.5	15.3	89.4	10.6	10.4	52.3	47.7	74.4	72.6	70.7	68.7	not polarized
2014														
State House 58	51.1	AA	42.6	12.2	59.4	40.6	7.2	16.8	83.2	43.6	41.5	39.4	37.1	67.6
State House 60	51.4	AA	54.2	9.9	66.5	33.5	4.9	32.7	67.3	55.3	53.8	52.1	50.3	34.2
State Senate 28	56.5	AA	59.4	12.1	71.4	34.1	6.0	34.7	65.3	57.1	55.6	54.0	52.3	28.9
2012														
2012 Lt Governor	32.1	AA	58.6	14.6	66.5	33.5	12.4	54.3	45.7	60.9	60.3	59.7	59.0	not polarized
2012 Comm of Labor	32.1	AA	39.2	13.7	52.6	47.4	10.6	30.9	69.1	43.1	42.1	40.9	39.8	85.0

Table 13

House Grouping: Lenoir and Pitt	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 8	44.9	AA	64.7	26.7	98.3	1.7	56.2	46.8	53.2	63.4	61.2	59.2	57.3	12.2
State House 9	20.5	AA	40.0	20.1	86.1	13.9	57.6	33.1	66.9	46.8	44.9	43.1	41.5	57.3
State House 12	37.4	AA	43.9	27.0	96.6	3.4	45.8	24.9	75.1	51.5	48.2	45.1	42.2	47.7
2016														
2016 Lt Governor	34.2	AA	50.2	39.4	97.9	2.1	65.1	42.8	57.2	63.6	61.0	58.6	56.3	19.9
2016 Treasurer	34.2	AA	52.6	38.8	98.6	1.4	63.2	44.9	55.1	65.3	62.9	60.5	58.2	14.6
2014														
none														
2012														
2012 President	34.2	AA	52.3	52.3	99.0	1.0	60.6	30.7	69.3	62.3	59.0	55.6	52.4	31.3
2012 Lt Governor	34.2	AA	52.9	51.6	98.6	1.4	59.3	32.0	68.0	63.0	59.7	56.5	53.2	29.9
Democratic primaries														
2018														
State House 8	44.9	AA	50.0	7.4	55.3	44.7	4.4	43.0	57.0	50.7	50.1	49.5	48.8	44.0
2016														
2016 Lt Governor	34.2	AA	53.6	17.2	73.7	26.3	7.8	34.2	65.8	61.4	59.6	57.7	55.6	23.2
2016 Attn General	34.2	AA	61.1	16.5	86.9	13.1	7.2	32.5	67.5	70.4	68.0	65.4	62.5	17.1
2016 Comm of Labor	34.2	W	46.5	16.7	55.6	44.4	7.7	38.0	62.0	50.0	49.3	48.4	47.5	49.7
2016 Treasurer	34.2	AA	54.6	16.5	53.6	46.4	7.2	52.7	47.3	53.3	53.3	53.2	53.2	not polarized
2014														
none														
2012														
2012 Lt Governor	34.2	AA	61.1	18.1	69.2	30.8	10.2	52.3	47.7	63.1	62.3	61.5	60.6	not polarized
2012 Comm of Labor	34.2	AA	29.9	18.0	35.2	64.8	9.5	26.1	73.9	32.1	31.6	31.2	30.7	no clear B-P cand

Table 14A

House Grouping: Mecklenburg	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 92	30.2	AA	70.0	26.4	98.3	1.7	65.5	63.2	36.8	73.3	71.9	70.6	69.5	not polarized
State House 99	49.5	AA	82.4	42.9	98.0	2.0	51.4	66.8	33.2	81.0	79.5	78.0	76.5	not polarized
State House 101	50.8	AA	78.7	34.5	98.5	1.5	62.4	61.3	38.7	74.5	72.9	71.3	69.8	not polarized
State House 104	6.2	AA	51.8	20.0	99.6	0.4	64.5	51.9	48.1	63.2	61.6	60.1	58.7	not polarized
State House 106	38.0	AA	80.6	28.1	99.0	1.0	55.8	72.6	27.4	81.4	80.3	79.2	78.2	not polarized
State Senate 40	38.9	AA	75.6	20.8	99.3	0.7	59.1	63.3	36.7	72.7	71.3	70.1	69.0	not polarized
2016														
2016 Lt Governor	30.2	AA	58.4	39.9	98.5	1.5	78.1	46.1	53.9	63.8	61.5	59.4	57.4	not polarized
2016 Treasurer	30.2	AA	58.4	42.2	99.0	1.0	74.6	47.9	52.1	66.4	64.1	61.9	59.8	7.0
State House 92	18.2	AA	54.4	39.8	96.1	3.9	56.6	45.2	54.8	66.2	63.8	61.4	59.2	12.9
State House 101	51.3	AA	76.0	50.7	99.2	0.8	69.1	53.6	46.4	72.9	70.7	68.6	66.5	not polarized
State House 105	9.5	AA	44.7	42.3	97.5	2.5	63.2	41.1	58.9	63.7	61.1	58.5	56.0	21.9
State Senate 38	52.5	AA	79.1	45.4	98.7	1.3	61.9	57.9	42.1	75.2	73.2	71.3	69.5	not polarized
State Senate 40	51.8	AA	82.5	53.8	98.5	1.5	42.6	56.1	43.9	79.8	77.6	75.5	73.3	not polarized
2014														
State House 92	18.2	AA	47.5	26.9	95.2	4.8	33.8	36.7	63.3	62.6	59.8	57.0	54.2	27.0
State House 106	51.1	AA	86.6	30.8	89.2	10.8	30.1	78.6	21.4	84.0	83.4	82.9	82.4	not polarized
State Senate 38	52.5	AA	79.7	31.6	99.2	0.8	35.2	60.4	39.6	78.8	76.8	74.9	73.0	not polarized
State Senate 41	13.2	AA	39.5	25.5	98.5	1.5	49.9	34.4	65.6	56.1	53.3	50.7	48.2	38.6
2012														
2012 President	30.2	AA	60.8	43.4	98.7	1.3	73.9	51.9	48.1	69.2	67.1	65.1	63.1	not polarized
2012 Lt Governor	30.2	AA	59.8	42.9	99.9	0.1	70.7	50.1	49.9	68.9	66.6	64.4	62.4	not polarized

Table 14B

House Grouping: Mecklenburg	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 99	49.5	AA	57.3	9.8	73.8	26.2	5.9	44.2	55.8	62.7	61.3	59.8	58.2	12.8
State House 101	50.8	AA	50.0	7.8	60.2	39.8	6.5	39.4	61.5	50.5	49.5	48.4	47.3	47.4
State House 106	38.0	AA	88.9	9.4	91.3	8.7	7.5	85.2	14.8	88.6	88.3	88.0	87.7	not polarized
State Senate 38	48.5	O	51.9	12.1	60.3	39.7	5.4	32.6	67.4	51.8	50.5	49.2	47.7	43.0
2016														
2016 Lt Governor	30.2	AA	55.2	19.8	65.2	34.8	11.0	48.6	51.4	59.3	58.5	57.7	56.8	not polarized
2016 Attn General	30.2	AA	55.7	19.6	86.6	13.4	10.9	31.8	68.2	67.0	64.4	61.7	58.8	21.7
2016 Comm of Labor	30.2	AA	57.0	16.9	75.7	24.3	11.2	46.8	53.2	64.2	62.8	61.3	59.8	7.6
2016 Treasurer	30.2	AA	52.7	19.0	59.6	40.4	10.7	47.1	52.9	55.1	54.5	53.9	53.2	14.5
State House 101	51.3	AA	78.6	14.1	92.5	7.5	9.1	50.3	49.7	75.9	73.9	71.7	69.5	not polarized
State House 107	52.5	AA	90.1	26.0	93.4	6.6	10.5	85.7	14.3	91.2	90.9	90.5	90.1	not polarized
State Senate 38	52.5	AA	52.1	18.9	54.3	45.7	13.1	48.6	51.4	52.0	51.7	51.4	51.1	18.4
State Senate 40	51.8	AA	64.7	19.3	66.7	33.3	9.1	63.2	36.8	65.6	65.4	65.3	65.1	not polarized
2014														
State Senate 40	51.8	AA	41.9	10.1	48.5	51.5	6.1	27.5	72.5	40.6	39.6	38.5	37.4	no clear B-P cand
2012														
2012 Lt Governor	30.2	AA	67.6	11.7	61.5	38.5	9.2	70.3	29.7	65.4	65.8	66.3	66.7	not polarized
2012 Comm of Labor	30.2	AA	40.7	11.7	54.3	45.7	7.2	30.5	69.5	45.2	44.1	42.9	41.6	73.6

Table 15A

House Grouping: Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 33	44.2	AA	78.7	49.7	100.0	0.0	49.3	63.2	36.8	81.7	79.8	78.0	76.1	not polarized
State House 37	14.3	AA	49.9	30.4	99.2	0.8	67.3	46.7	53.3	63.0	60.9	58.9	57.0	12.9
State House 38	48.3	AA	81.9	31.5	99.1	0.9	65.4	69.4	30.6	79.1	77.8	76.6	75.5	not polarized
State Senate 14	38.9	AA	71.4	32.0	99.2	0.8	67.9	63.3	36.7	74.8	73.3	71.9	70.6	not polarized
2016														
2016 Lt Governor	20.7	AA	54.7	56.9	98.6	1.4	67.8	46.2	53.8	70.1	67.5	65.0	62.5	not polarized
2016 Treasurer	20.7	AA	56.1	61.1	99.2	0.8	65.3	48.3	51.7	72.9	70.4	67.9	65.4	3.6
State House 38	51.4	AA	84.8	42.1	96.9	3.1	50.9	73.8	26.2	84.3	83.1	82.0	80.9	not polarized
2014														
State House 33	51.4	AA	87.3	37.0	99.3	0.7	50.0	75.4	24.6	85.6	84.4	83.3	82.2	not polarized
State Senate 38	51.4	AA	79.9	43.9	99.1	0.9	43.2	66.5	33.5	82.9	81.3	79.7	78.0	not polarized
2012														
2012 President	20.7	AA	55.1	41.6	99.3	0.7	70.7	47.0	53.0	66.4	64.0	61.7	59.6	9.4
2012 Lt Governor	20.7	AA	55.3	39.8	99.7	0.3	68.7	47.3	52.7	66.5	64.2	61.9	59.8	8.6

Table 15B

House Grouping: Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 33	44.2	AA	60.2	11.7	61.8	38.2	8.4	58.9	41.1	60.6	60.4	60.3	60.1	not polarized
2016														
2016 Lt Governor	20.7	AA	60.3	22.4	82.2	17.8	17.8	51.4	48.6	68.6	67.0	65.5	63.8	not polarized
2016 Attn General	20.7	AA	35.0	22.0	60.4	39.6	17.8	28.4	71.6	46.1	44.5	42.9	41.2	62.7
2016 Comm of Labor	20.7	W	72.2	18.8	72.1	27.9	21.9	74.7	25.3	73.5	73.6	73.8	73.9	not polarized
2016 Treasurer	20.7	AA	63.2	19.9	89.2	10.8	20.7	52.9	47.1	70.7	68.9	67.1	65.3	not polarized
State House 33	51.4	AA	64.1	18.5	80.6	19.4	17.7	54.3	45.7	67.7	66.4	65.1	63.8	not polarized
2014														
none														
2012														
2012 Lt Governor	20.7	AA	59.7	19.4	68.0	32.0	16.6	53.7	46.3	61.4	60.7	60.0	59.2	not polarized
2012 Comm of Labor	20.7	AA	37.9	19.2	54.1	45.9	13.6	31.3	68.7	44.6	43.5	42.4	41.1	76.4

Table 16A

Senate Grouping: Alamance, Guilford, and Randolph	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
					black votes			white votes						
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 64 (Alamance)	18.5	AA	42.2	24.5	96.7	3.3	55.7	38.2	61.8	56.1	53.7	51.5	49.4	36.5
State House 58 (Guilford)	42.7	AA	76.8	38.0	99.4	0.6	47.8	62.8	37.2	79.0	77.2	75.5	73.8	not polarized
State House 60 (Guilford)	40.1	AA	69.0	35.2	98.9	1.1	52.5	57.1	42.9	73.9	71.9	70.0	68.2	not polarized
State Senate 28 (Guilford)	43.6	AA	75.3	34.9	99.2	0.8	58.0	64.5	35.5	77.5	75.9	74.4	73.0	not polarized
insert														
2016														
2016 Lt Governor	24.8	AA	47.8	43.6	96.6	3.4	72.2	38.1	61.9	60.1	57.4	54.9	52.5	29.7
2016 Treasurer	24.8	AA	49.2	43.8	99.5	0.5	70.1	42.3	57.7	64.3	61.6	59.1	56.7	19.9
State Senate 28 (Guilford)	56.5	AA	83.9	59.7	99.4	0.6	59.7	62.3	37.7	80.9	79.0	77.1	75.3	not polarized
2014														
State House 61 (Guilford)	15.3	AA	32.8	38.1	98.6	1.4	63.8	24.3	75.7	52.1	48.7	45.5	42.4	47.0
2012														
2012 President	24.8	AA	49.8	45.0	99.2	0.8	67.8	40.0	60.0	63.6	60.8	58.2	55.6	23.4
2012 Lt Governor	24.8	AA	50.2	43.5	98.4	1.6	66.9	43.5	56.5	65.1	62.6	60.1	57.7	17.1

Table 16B

Senate Grouping: Alamance, Guilford, and Randolph	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 64 (Alamance)	18.5	AA	46.8	5.4	87.8	12.2	3.5	35.9	64.1	67.4	64.9	62.2	59.5	19.5
State House 58 (Guilford)	42.7	AA	80.2	10.0	98.4	1.6	7.3	65.2	34.8	84.4	82.7	81.0	79.3	not polarized
2016														
2016 Lt Governor	24.8	AA	56.0	21.2	74.6	25.4	11.2	47.0	53.0	65.1	63.8	62.4	60.9	not polarized
2016 Attn General	24.8	AA	53.1	20.9	87.9	12.1	10.9	38.5	61.5	71.0	68.7	66.2	63.6	13.7
2016 Comm of Labor	24.8	W	58.8	20.6	79.5	20.5	10.3	49.5	50.5	69.5	68.1	66.6	65.1	0.8
2016 Treasurer	24.8	AA	54.2	20.5	61.3	38.7	10.5	54.3	45.7	58.9	58.6	58.3	57.9	not polarized
State House 58 (Guilford)	51.1	AA	71.5	15.3	89.4	10.6	10.4	52.3	47.7	74.4	72.6	70.7	68.7	not polarized
2014														
State House 58 (Guilford)	51.1	AA	42.6	12.2	59.4	40.6	7.2	16.8	83.2	43.6	41.5	39.4	37.1	67.6
State House 60 (Guilford)	51.4	AA	54.2	9.9	66.5	33.5	4.9	32.7	67.3	55.3	53.8	52.1	50.3	34.2
State Senate 28 (Guilford)	56.5	AA	59.4	12.1	71.4	34.1	6.0	34.7	65.3	57.1	55.6	54.0	52.3	28.9
2012														
2012 Lt Governor	24.8	AA	56.7	16.9	66.7	33.3	9.8	52.1	47.9	61.3	60.6	59.9	59.1	not polarized
2012 Comm of Labor	24.8	AA	36.8	15.7	54.4	45.6	8.4	27.8	72.2	45.1	43.9	42.6	41.1	73.0

Table 17

Senate Grouping: Davie and Forsyth	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 71 (Forsyth)	36.6	AA	72.7	24.7	98.7	1.3	57.0	63.4	36.6	74.1	72.6	71.3	70.1	not polariized
State House 72 (Forsyth)	47.5	AA	79.1	31.8	99.6	0.4	49.4	69.6	30.4	81.3	79.9	78.6	77.3	not polariized
State Senate 32 (Forsyth)	39.2	AA	72.9	28.5	99.2	0.8	50.5	65.0	35.0	77.3	75.8	74.3	73.0	not polariized
2016														
2016 Lt Governor	23.8	AA	48.2	32.6	99.4	0.6	72.9	34.8	65.2	54.8	52.1	49.6	47.3	40.8
2016 Treasurer	23.8	AA	41.2	29.9	100.0	0.0	71.2	34.3	65.7	53.7	51.1	48.7	46.4	42.8
2014														
State House 71	45.5	AA	76.6	25.8	99.3	0.7	39.6	62.6	37.4	77.1	75.4	73.7	72.1	not polarized
2012														
2012 President	23.8	AA	50.5	47.8	99.3	0.7	69.8	40.6	59.4	64.5	61.7	59.0	56.4	21.8
2012 Lt Governor	23.8	AA	50.7	46.4	99.1	0.9	69.5	42.3	57.7	65.0	62.4	59.8	57.3	19.0
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	23.8	AA	55.6	20.0	79.9	20.1	11.4	45.2	54.8	67.3	65.7	63.9	62.1	not polarized, 1st choice same
2016 Attn General	23.8	AA	45.0	20.9	68.9	31.1	11.1	36.3	63.7	57.6	56.1	54.4	52.7	27.8
2016 Comm of Labor	23.8	AA	60.3	19.1	84.7	15.3	10.6	51.2	48.8	72.7	71.2	69.5	67.7	not polarized
2016 Treasurer	23.8	AA	59.1	20.5	70.5	29.5	10.6	53.6	46.4	64.7	64.0	63.1	62.2	not polarized
2014														
none														
2012														
2012 Lt Governor	23.8	AA	58.5	16.1	76.5	23.5	10.4	51.8	48.2	66.8	65.6	64.3	63.0	not polarized
2012 Comm of Labor	23.8	AA	39.3	15.1	47.9	52.1	8.9	35.8	64.2	43.4	42.8	42.2	41.6	no clear B-P cand

Table 18A

Senate Grouping: Duplin, Harnett, Johnsont, Lee, Nash, and Sampson	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 4 (Duplin)	22.6	AA	34.5	29.7	99.0	1.0	34.1	15.1	84.9	54.2	50.0	45.9	41.9	45.0
State House 25 (Nash)	40.7	AA	51.5	35.4	98.1	1.9	64.2	34.2	65.8	56.9	54.1	51.4	48.8	37.3
State Senate 10	24.1	AA	37.5	30.7	99.8	0.2	33.2	16.6	83.4	56.6	52.4	48.3	44.3	42.0
2016														
2016 Lt Governor	23.3	AA	38.7	55.9	99.8	0.2	60.1	21.1	78.9	59.0	55.1	51.2	47.4	38.4
2016 Treasurer	23.3	AA	41.5	54.8	99.8	0.2	58.4	29.7	70.3	63.6	60.1	56.7	53.2	30.3
State House 7 (Nash)	50.7	AA	67.8	52.9	99.5	0.5	68.3	44.8	55.2	68.7	66.0	63.4	60.9	11.9
State House 25 (Nash)	16.1	AA	31.9	53.8	84.6	15.4	62.8	20.8	79.2	50.2	47.1	44.0	40.9	49.6
2014														
none														
2012														
2012 President	23.3	AA	41.8	58.3	99.2	0.8	64.7	23.9	76.1	59.6	55.9	52.2	48.5	37.1
2012 Lt Governor	23.3	AA	44.8	57.1	99.1	0.9	63.6	28.4	71.6	61.8	58.3	54.9	51.4	32.9

Table 18B

Senate Grouping: Duplin, Harnett, Johnsont, Lee, Nash, and Sampson	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	23.3	AA	57.8	19.0	94.1	5.9	6.5	40.2	59.8	80.4	78.2	75.8	73.2	7.1
2016 Attn General	23.3	AA	49.3	18.9	64.5	35.5	7.0	42.3	57.7	58.5	57.6	56.6	55.5	16.4
2016 Comm of Labor	23.3	W	67.7	18.6	64.9	35.1	6.6	69.3	30.7	66.1	66.2	66.4	66.6	not polarized
2016 Treasurer	23.3	AA	60.1	18.8	82.7	17.3	6.6	48.4	51.6	73.8	72.4	70.9	69.2	1.7
2014														
none														
2012														
2012 Lt Governor	23.3	AA	51.3	24.9	56.4	43.6	7.9	56.2	43.8	56.4	56.3	56.3	56.3	not polarized
2012 Comm of Labor	23.3	AA	16.9	23.9	38.5	61.5	6.9	18.4	81.6	34.0	33.3	32.4	31.5	no clear B-P cand

Table 19A

Senate Grouping: Franklin and Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 33 (Wake)	44.2	AA	78.7	49.7	100.0	0.0	49.3	63.2	36.8	81.7	79.8	78.0	76.1	not polarized
State House 37 (Wake)	14.3	AA	49.9	30.4	99.2	0.8	67.3	46.7	53.3	63.0	60.9	58.9	57.0	12.9
State House 38 (Wake)	48.3	AA	81.9	31.5	99.1	0.9	65.4	69.4	30.6	79.1	77.8	76.6	75.5	not polarized
State Senate 14 (Wake)	38.9	AA	71.4	32.0	99.2	0.8	67.9	63.3	36.7	74.8	73.3	71.9	70.6	not polarized
2016														
2016 Lt Governor	21.1	AA	54.0	58.3	99.6	0.4	85.8	44.1	55.9	66.6	63.9	61.4	59.0	14.9
2016 Treasurer	21.1	AA	55.4	57.3	99.5	0.5	84.3	46.4	53.6	67.9	65.4	63.0	60.6	9.7
State House 7 (Franklin)	50.7	AA	67.8	52.9	99.5	0.5	68.3	44.8	55.2	68.7	66.0	63.4	60.9	11.9
State House 38 (Wake)	51.4	AA	84.8	42.1	96.9	3.1	50.9	73.8	26.2	84.3	83.1	82.0	80.9	not polarized
2014														
State House 33 (Wake)	51.4	AA	87.3	37.0	99.3	0.7	50.0	75.4	24.6	85.6	84.4	83.3	82.2	not polarized
State Senate 38 (Wake)	51.4	AA	79.9	43.9	99.1	0.9	43.2	66.5	33.5	82.9	81.3	79.7	78.0	not polarized
2012														
2012 President	21.1	AA	54.7	54.7	99.5	0.5	68.3	42.1	57.9	67.6	64.8	62.1	59.4	16.6
2012 Lt Governor	21.1	AA	54.9	53.6	99.3	0.7	67.1	44.0	56.0	68.6	65.9	63.2	60.6	13.2

Table 19B

Senate Grouping: Franklin and Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 33	44.2	AA	60.2	11.7	61.8	38.2	8.4	58.9	41.1	60.6	60.4	60.3	60.1	not polarized
2016														
2016 Lt Governor	21.1	AA	60.7	17.6	84.7	15.3	13.3	51.3	48.7	70.3	68.7	67.0	65.2	not polarized
2016 Attn General	21.1	AA	35.4	17.0	63.2	15.4	13.0	32.4	67.6	56.7	54.3	51.9	49.5	36.0
2016 Comm of Labor	21.1	W	72.2	17.0	68.6	31.4	11.6	74.7	25.3	71.1	71.4	71.7	72.0	not polarized
2016 Treasurer	21.1	AA	63.4	17.3	90.0	10.0	12.4	53.5	46.5	74.8	73.0	71.1	69.2	not polarized
State House 33	51.4	AA	64.1	18.5	80.6	19.4	17.7	54.3	45.7	67.7	66.4	65.1	63.8	not polarized
2014														
none														
2012														
2012 Lt Governor	21.1	AA	59.8	19.4	77.0	23.0	16.6	54.9	45.1	66.8	65.7	64.6	63.4	not polarized
2012 Comm of Labor	21.1	AA	37.7	19.2	56.1	43.9	13.6	31.3	68.7	45.8	44.6	43.3	42.0	68.5

Table 20

Forsyth County	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 71	36.6	AA	72.7	24.7	98.7	1.3	57.0	63.4	36.6	74.1	72.6	71.3	70.1	not polarized
State House 72	47.5	AA	79.1	31.8	99.6	0.4	49.4	69.6	30.4	81.3	79.9	78.6	77.3	not polarized
State Senate 32	39.2	AA	72.9	28.5	99.2	0.8	50.5	65.0	35.0	77.3	75.8	74.3	73.0	not polarized
2016														
2016 Lt Governor	25.9	AA	51.2	42.6	98.8	1.2	73.5	42.3	57.7	63.0	60.5	58.0	55.7	21.4
2016 Treasurer	25.9	AA	50.9	39.2	99.0	1.0	72.0	42.8	57.2	62.6	60.1	57.8	55.5	21.3
2014														
State House 71	45.5	AA	76.6	25.8	99.3	0.7	39.6	62.6	37.4	77.1	75.4	73.7	72.1	not polarized
2012														
2012 President	25.9	AA	53.2	44.5	99.8	0.2	70.2	43.6	56.4	65.4	62.8	60.3	57.9	16.9
2012 Lt Governor	25.9	AA	53.4	44.2	100.0	0.0	68.3	44.2	55.8	66.1	63.5	61.0	58.6	15.2
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	25.9	AA	56.1	19.5	79.5	20.5	12.5	45.6	54.4	66.3	64.6	62.9	61.1	8.7
2016 Attn General	25.9	AA	45.2	18.9	69.5	30.5	12.1	35.0	65.0	56.0	54.4	52.6	50.8	33.0
2016 Comm of Labor	25.9	AA	60.8	17.8	84.2	15.8	11.7	52.0	48.0	71.4	69.9	68.2	66.5	not polarized
2016 Treasurer	25.9	AA	59.6	18.9	69.4	30.6	11.7	54.4	45.6	63.7	62.9	62.2	61.4	not polarized
2014														
none														
2012														
2012 Lt Governor	25.9	AA	58.8	15.1	66.5	33.5	11.2	52.9	47.1	60.7	60.0	59.3	58.6	not polarized
2012 Comm of Labor	25.9	AA	39.7	14.2	49.4	50.6	9.5	35.5	64.5	43.8	43.1	42.4	41.7	106.6

Table 21

Pitt County	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 8	44.9	AA	64.7	26.7	98.3	1.7	56.2	46.8	53.2	63.4	61.2	59.2	57.3	12.2
State House 9	20.5	AA	40.0	20.1	86.1	13.9	57.6	33.1	66.9	46.8	44.9	43.1	41.5	57.3
2016														
2016 Lt Governor	32.4	AA	51.0	47.4	98.6	1.4	68.1	33.2	66.8	60.0	56.9	53.9	51.0	33.2
2016 Treasurer	32.4	AA	53.0	45.3	99.4	0.6	66.7	35.6	64.4	61.4	58.4	55.5	52.7	30.0
2014														
none														
2012														
2012 President	32.4	AA	53.2	54.8	99.2	0.8	64.1	34.6	65.4	64.4	61.2	58.1	55.0	26.8
2012 Lt Governor	32.4	AA	55.1	53.8	99.0	1.0	62.6	37.3	62.7	65.8	62.8	59.8	56.8	23.2
Democratic primaries														
2018														
State House 8	44.9	AA	50.0	7.4	55.3	44.7	4.4	43.0	57.0	50.7	50.1	49.5	48.8	44.0
2016														
2016 Lt Governor	32.4	AA	52.0	12.2	78.1	21.9	7.2	34.2	65.8	61.8	59.7	57.5	55.1	24.9
2016 Attn General	32.4	AA	61.4	11.7	71.9	28.1	6.8	22.5	77.5	53.7	51.4	48.9	46.3	42.2
2016 Comm of Labor	32.4	AA	50.5	11.5	62.3	37.7	6.7	41.9	58.1	54.8	53.8	52.8	51.7	27.7
2016 Treasurer	32.4	AA	51.3	11.4	55.1	44.9	6.9	43.1	56.9	50.6	50.0	49.4	48.7	45.0
2014														
none														
2012														
2012 Lt Governor	32.4	AA	60.5	13.7	57.2	42.8	7.4	60.9	39.1	58.5	58.7	58.9	59.1	not polarized
2012 Comm of Labor	32.4	AA	32.9	13.1	44.3	55.7	6.7	20.3	79.7	36.2	35.1	33.9	32.6	no clear B-P cand

Table 22A

Robeson County	percent NA VAP of jurisdiction	race of N-P candidate	actual vote for N-P candidate	turnout rate for office and percent vote for Native-preferred candidates						percent of vote B-P cand would have received if district was 50% NA VAP	percent of vote B-P cand would have received if district was 45% NA VAP	percent of vote B-P cand would have received if district was 40% NA VAP	percent of vote B-P cand would have received if district was 35% NA VAP	percent NA VAP must exceed for N-P candidate to win
				Native American votes			non-Native American votes							
				votes cast for office	N-P	all others	votes cast for office	N-P	all others					
General elections														
2018														
State House 46	14.5	AA	36.7	12.4	51.9	48.1	35.9	39.5	60.5	42.7	42.2	41.8	41.4	94.1
State House 47	46.2	NA	58.9	16.7	79.3	20.7	30.8	38.5	61.5	52.8	51.0	49.3	47.7	42.0
State Senate 13	26.5	W	61.5	17.5	53.6	46.4	35.2	57.8	42.2	56.4	56.6	56.8	56.9	not polarized
2016														
2016 Lt Governor	38.2	AA	51.6	24.0	51.7	48.3	46.6	50.7	49.3	51.0	51.0	51.0	50.9	not polarized
2016 Treasurer	38.2	AA	57.8	22.9	59.1	40.9	45.6	51.5	48.5	54.0	53.7	53.4	53.1	not polarized
2014														
none														
2012														
2012 President	38.2	AA	58.3	28.3	60.4	39.6	53.5	60.8	39.2	60.7	60.7	60.7	60.7	not polarized
2012 Lt Governor	38.2	AA	67.5	27.3	73.8	26.2	51.8	66.1	33.9	68.8	68.4	68.1	67.8	not polarized

Table 22B

Robeson County	percent NA VAP of jurisdiction	race of N-P candidate	actual vote for N-P candidate	turnout rate for office and percent vote for Native-preferred candidates						percent of vote B-P cand would have received if district was 50% NA VAP	percent of vote B-P cand would have received if district was 45% NA VAP	percent of vote B-P cand would have received if district was 40% NA VAP	percent of vote B-P cand would have received if district was 35% NA VAP	percent NA VAP must exceed for N-P candidate to win
				Native American votes			non-Native American votes							
				votes cast for office	N-P	all others	votes cast for office	N-P	all others					
Democratic primaries														
2018														
State Senate 13	26.5	NA	33.1	11.2	52.3	47.7	9.0	22.7	77.3	39.1	37.6	36.1	34.6	90.5
2016														
2016 Lt Governor	38.2	W	22.3	8.5	31.6	68.4	9.9	17.0	83.0	23.7	23.0	22.3	21.6	no clear N-P cand
2016 Attn General	38.2	AA	62.5	8.4	65.2	34.8	10.5	59.3	40.7	61.9	61.6	61.4	61.1	not polarized
2016 Comm of Labor	38.2	W	65.2	8.4	61.3	38.7	9.7	69.1	30.9	65.5	65.9	66.2	66.6	not polarized
2016 Treasurer	38.2	AA	67.1	8.9	72.5	27.5	10.1	59.1	40.9	65.4	64.7	64.1	63.4	not polarized
State House 47	51.0	NA	58.4	11.8	52.2	47.8	9.0	62.7	37.3	56.7	57.3	57.8	58.4	not polarized
2014														
State Senate 13	26.5	W	47.3	12.6	42.7	57.3	17.1	46.1	53.9	44.7	44.8	45.0	45.1	not polarized
2012														
2012 Lt Governor	38.2	AA	52.3	16.2	58.1	41.9	17.3	48.7	51.3	53.2	52.8	52.3	51.9	14.6
2012 Comm of Labor	38.2	W	54.4	16.4	88.0	12.0	16.1	39.4	60.6	63.9	61.5	59.1	56.6	21.5

Certification

I certify that the statements and opinions provided in this report are true and accurate to the best of my knowledge, information, and belief.

Lisa Handley

Lisa Handley, Ph.D.

9/17/2019

Date

Lisa R. Handley
CURRICULUM VITAE

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Professional Experience

Dr. Handley has over thirty years of experience in the areas of redistricting and voting rights, both as a practitioner and an academician, and is recognized nationally (as well as internationally) as an expert on these subjects. She has advised numerous jurisdictions and other clients on redistricting and has served as an expert in dozens of redistricting and voting rights court cases. Her clients have included the U.S. Department of Justice and scores of state and local jurisdictions, as well as redistricting commissions and civil rights organizations. Internationally, Dr. Handley has provided electoral assistance in more than a dozen countries, serving as a consultant on issues of democratic governance – including voting rights, electoral system design and electoral boundary delimitation (redistricting) – for the United Nations, the United Nations Development Fund (UNDP), IFES, and International IDEA. In addition, Dr. Handley served as Chairman of the Electoral Boundaries Commission in the Cayman Islands.

Dr. Handley has been actively involved in research, writing and teaching on the subjects of voting rights and redistricting. She has written a book, Minority Representation and the Quest for Voting Equality (Cambridge University Press, 1992) and numerous articles, as well as edited a volume (Redistricting in Comparative Perspective, Oxford University Press, 2008) on these subjects. She has taught political science and methodology courses at several universities, most recently George Washington University. Dr. Handley is a Visiting Research Academic at Oxford Brookes University in the United Kingdom.

Dr. Handley is the President of Frontier International Consulting, a consulting firm that specializes in providing electoral assistance in transitional and post-conflict democracies. She also works as an independent election consultant for such international organizations as the United Nations.

Education

Ph.D. The George Washington University, Political Science, 1991

Present Employment

President, Frontier International Electoral Consulting LLC (since co-founding company in September of 1998).

Senior International Consultant, provides electoral assistance to such international clients as the UN, UNDP and IFES on electoral district delimitation, electoral system design and minority voting rights.

U.S. Clients since 2000

American Civil Liberties Union (expert testimony in Ohio partisan gerrymander challenge and challenge to Commerce Department inclusion of citizenship question on 2020 census form)

Lawyers Committee for Civil Rights Under Law (expert testimony in challenges to statewide judicial elections in Texas and Alabama)

US Department of Justice (expert witness testimony in several Section 2 and Section 5 cases)

Alaska: Alaska Redistricting Board (redistricting consultation, expert witness testimony)

Arizona: Arizona Independent Redistricting Board (redistricting consultation, expert witness)

Arkansas: expert witness for Plaintiffs in Jeffers v. Beebe

Colorado: Colorado Redistricting Board (redistricting consultation)

Connecticut: State Senate and State House of Representatives (redistricting consultation)

Florida: State Senate (redistricting consultation)

Kansas: State Senate and House Legislative Services (redistricting consultation)

Louisiana: Louisiana Legislative Black Caucus (expert witness testimony)

Massachusetts: State Senate (redistricting consultation)

Maryland: Attorney General (redistricting consultation, expert witness testimony)

Miami-Dade County, Florida: County Attorney (redistricting consultation)

Nassau County, New York: Redistricting Commission (redistricting consulting)

New Mexico: State House (redistricting consultation, expert witness testimony)

New York: State Assembly (redistricting consultation)

New York City: Redistricting Commission and Charter Commission (redistricting consultation and Section 5 submission assistance)

New York State Court: Expert to the Special Master (drew congressional lines for state court)

Ohio: State Democratic Party (redistricting litigation support, expert witness testimony)

Pennsylvania: Senate Democratic Caucus (redistricting consultation)

Rhode Island: State Senate and State House (litigation support, expert witness testimony)

Vermont: Secretary of State (redistricting consultation)

International Clients since 2000

United Nations

- Afghanistan – electoral system design and district delimitation expert
- Bangladesh (UNDP) – redistricting expert
- Sierra Leone (UNDP) – redistricting expert
- Liberia (UNMIL, UN peacekeeping mission) – redistricting expert
- Democratic Republic of the Congo (MONUC, UN peacekeeping mission) – election feasibility mission, electoral system design and redistricting expert
- Kenya (UN) – electoral system design and redistricting expert
- Haiti (UN) – election feasibility mission, electoral system design and redistricting expert
- Lead Writer on the topic of boundary delimitation (redistricting) for ACE (Administration and Cost of Elections Project)

International Foundation for Election Systems (IFES)

- Afghanistan – district delimitation expert
- Sudan – redistricting expert
- Kosovo – electoral system design and redistricting expert
- Nigeria – redistricting expert
- Nepal – redistricting expert
- Georgia – electoral system design and district delimitation expert
- Yemen – redistricting expert
- Lebanon – electoral system design and redistricting expert
- Myanmar – electoral system design and redistricting expert
- Ukraine – electoral system design and redistricting expert
- Pakistan – consultant for developing redistricting software
- Principal consultant for the Delimitation Equity Project – conducted research, wrote reference manual and developed training curriculum
- Writer on electoral boundary delimitation (redistricting), Elections Standards Project
- Training – developed training curriculum and conducted training workshops on electoral boundary delimitation (redistricting) in Azerbaijan and Jamaica

International Institute for Democracy and Electoral Assistance (International IDEA):

- Consultant on electoral dispute resolution systems
- Technology consultant on use of GIS for electoral district delimitation
- Training – developed training material and conducted training workshop on electoral boundary delimitation (redistricting) for African election officials (Mauritius)
- Curriculum development – boundary delimitation curriculum for the BRIDGE Project
- Project coordinator for the ACE project

Other international clients have included The Cayman Islands; the Australian Election Commission; the Boundary Commission of British Columbia, Canada; and the Global Justice Project for Iraq.

Previous Employment

Project Coordinator and Lead Writer on Boundary Delimitation, Administration and Cost of Elections (ACE) Project. As Project Coordinator (1998 – 2000) of the ACE Project, Dr. Handley served as a liaison between the three partner international organizations – the United Nations, the International Foundation for Election Systems and International IDEA – and was responsible for the overall project management of ACE, a web-based global encyclopedia of election administration. She also served as Lead Writer on Boundary Delimitation for ACE.

Research Director and Statistical Analyst, Election Data Services, Inc. (1984 to 1998). Election Data Services (E.D.S.) is a Washington D.C. political consulting firm specialising in election administration. Dr. Handley's work at E.D.S. focused on providing redistricting and voting rights consulting and litigation support to scores of state and local jurisdictions.

Adjunct Professor (1986 to 1998). Dr. Handley has taught political science and methodology courses (both at the graduate and undergraduate level) at George Washington University, the University of Virginia, and the University of California at Irvine. She has served as a guest lecture at Harvard, Princeton, Georgetown, American University, George Mason University and Oxford Brookes University in the UK.

Grants

National Science Foundation Grant (2000-2001): Co-investigator (with Bernard Grofman) on a comparative redistricting project, which included hosting an international conference on "Redistricting in a Comparative Perspective" and producing an edited volume based on the papers presented at the conference.

Publications

Books*:*

Does Torture Prevention Work? Liverpool University Press, 2016 (served as editor and author, with Richard Carver)

Comparative Redistricting in Perspective, Oxford University Press, 2008 (first editor, with Bernard Grofman).

Delimitation Equity Project: Resource Guide, Center for Transitional and Post-Conflict Governance at IFES and USAID publication, 2006 (lead author).

Minority Representation and the Quest for Voting Equality, Cambridge University Press, 1992 (with Bernard Grofman and Richard Niemi).

***Academic Articles**:*

"Minority Success in Non-Majority Minority Districts: Finding the 'Sweet Spot'," Journal of Race, Ethnicity and Politics, forthcoming (with David Lublin, Thomas Brunell and Bernard Grofman).

"Has the Voting Rights Act Outlived its Usefulness: In a Word, "No," Legislative Studies Quarterly, volume 34 (4), November 2009 (with David Lublin, Thomas Brunell and Bernard Grofman).

"Delimitation Consulting in the US and Elsewhere," Zeitschrift für Politikberatung, volume 1 (3/4), 2008 (with Peter Schrott).

"Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," North Carolina Law Review, volume 79 (5), June 2001 (with Bernard Grofman and David Lublin).

"A Guide to 2000 Redistricting Tools and Technology" in The Real Y2K Problem: Census 2000 Data and Redistricting Technology, edited by Nathaniel Persily, New York: Brennan Center, 2000.

"1990s Issues in Voting Rights," Mississippi Law Journal, 65 (2), Winter 1995 (with Bernard Grofman).

"Minority Turnout and the Creation of Majority-Minority Districts," American Politics Quarterly, 23 (2), April 1995 (with Kimball Brace, Richard Niemi and Harold Stanley).

"Identifying and Remedying Racial Gerrymandering," Journal of Law and Politics, 8 (2), Winter 1992 (with Bernard Grofman).

"The Impact of the Voting Rights Act on Minority Representation in Southern State Legislatures," Legislative Studies Quarterly, 16 (1), February 1991 (with Bernard Grofman).

"Minority Population Proportion and Black and Hispanic Congressional Success in the 1970s and 1980s," American Politics Quarterly, 17 (4), October 1989 (with Bernard Grofman).

"Black Representation: Making Sense of Electoral Geography at Different Levels of Government," Legislative Studies Quarterly, 14 (2), May 1989 (with Bernard Grofman).

"Minority Voting Equality: The 65 Percent Rule in Theory and Practice," Law and Policy, 10 (1), January 1988 (with Kimball Brace, Bernard Grofman and Richard Niemi).

"Does Redistricting Aimed to Help Blacks Necessarily Help Republicans?" Journal of Politics, 49 (1), February 1987 (with Kimball Brace and Bernard Grofman).

***Chapters in Edited Volumes**:*

"Redistricting" in Oxford Handbook of Electoral Systems, Erik Herron Robert Pekkanen and Matthew Shugart (eds), Oxford: Oxford University Press, 2018.

"Role of the Courts in the Electoral Boundary Delimitation Process," in International Election Remedies, John Hardin Young (ed.), Chicago: American Bar Association Press, 2017.

"One Person, One Vote, Different Values: Comparing Delimitation Practices in India, Canada, the United Kingdom, and the United States," in Fixing Electoral Boundaries in India, edited by Mohd. Sanjeer Alam and K.C. Sivaramakrishman, New Delhi: Oxford University Press, 2015.

"Delimiting Electoral Boundaries in Post-Conflict Settings," in Comparative Redistricting in Perspective, edited by Lisa Handley and Bernard Grofman, Oxford: Oxford University Press, 2008.

"A Comparative Survey of Structures and Criteria for Boundary Delimitation," in Comparative Redistricting in Perspective, edited by Lisa Handley and Bernard Grofman, Oxford: Oxford University Press, 2008.

"Drawing Effective Minority Districts: A Conceptual Model," in Voting Rights and Minority Representation, edited by David Bositis, published by the Joint Center for Political and Economic Studies, Washington DC, and University Press of America, New York, 2006.

"Electing Minority-Preferred Candidates to Legislative Office: The Relationship Between Minority Percentages in Districts and the Election of Minority-Preferred Candidates," in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman and Wayne Arden).

"Estimating the Impact of Voting-Rights-Related Districting on Democratic Strength in the U.S. House of Representatives," in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman).

"Voting Rights in the 1990s: An Overview," in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman and Wayne Arden).

"Racial Context, the 1968 Wallace Vote and Southern Presidential Dealignment: Evidence from North Carolina and Elsewhere," in Spatial and Contextual Models in Political Research, edited by Munroe Eagles; Taylor and Francis Publishing Co., 1995 (with Bernard Grofman).

"The Impact of the Voting Rights Act on Minority Representation: Black Officeholding in Southern State Legislatures and Congressional Delegations," in The Quiet Revolution: The Impact of the Voting Rights Act in the South, 1965-1990, eds. Chandler Davidson and Bernard Grofman, Princeton University Press, 1994 (with Bernard Grofman).

"Preconditions for Black and Hispanic Congressional Success," in United States Electoral Systems: Their Impact on Women and Minorities, eds. Wilma Rule and Joseph Zimmerman, Greenwood Press, 1992 (with Bernard Grofman).

***Electronic Publication**:*

"Boundary Delimitation" Topic Area for the Administration and Cost of Elections (ACE) Project, 1998. Published by the ACE Project on the ACE website (www.aceproject.org).

***Additional Writings of Note**:*

Amicus brief presented to the US Supreme Court in Gill v. Whitford, Brief of Political Science Professors as Amici Curiae, 2017 (one of more than a political scientists to sign brief)

Amicus brief presented to the US Supreme Court in Shelby County v. Holder, Brief of Historians and Social Scientists as Amici Curiae, 2013 (one of several dozen historians and social scientists to sign brief)

Amicus brief presented to the US Supreme Court in Bartlett v. Strickland, 2008 (with Nathaniel Persily, Bernard Grofman, Bruce Cain, and Theodore Arrington).

Court Cases since 2015

Ohio Philip Randolph Institute v. Larry Householder (2019) – partisan gerrymander challenge to Ohio congressional districts

State of New York v. U.S. Department of Commerce/ New York Immigration Coalition v. U.S. Department of Commerce (2018-2019) – challenge to inclusion of citizenship question on 2020 census form

U.S. v. City of Eastpointe (ongoing) – minority vote dilution challenge to City of Eastpointe, Michigan, at-large city council election system

Alabama NAACP v. State of Alabama (ongoing) – minority vote dilution challenge to Alabama statewide judicial election system

Lopez v. Abbott (2017-2018) – minority vote dilution challenge to Texas statewide judicial election system

Personhaballah v. Alcorn (2016-17) – racial gerrymander challenge to Virginia congressional districts

Exhibit 8

EXHIBIT F

STATE OF NORTH CAROLINA COUNTY OF WAKE	IN THE GENERAL COURT OF JUSTICE SUPERIOR COURT DIVISION 21 CVS 015426 21 CVS 500085
NORTH CAROLINA LEAGUE OF CONSERVATION VOTERS, et al., Plaintiffs, vs. REPRESENTATIVE DESTIN HALL, in his official capacity as Chair of the House Standing Committee on Redistricting, et al., Defendants. REBECCA HARPER, et al., Plaintiffs, vs. REPRESENTATIVE DESTIN HALL, in his official capacity as Chair of the House Standing Committee on Redistricting, et al., Defendants.	**EXPERT REPORT OF DR. JEFFREY B. LEWIS**

Pursuant to the North Carolina Rules of Civil Procedure and the Case Management Orders of the Court in the above-captioned matter, I, Jeffrey B. Lewis, provide the following written report:

1. I am a Professor of Political Science at the University of California, Los Angeles (UCLA). I am also the past department chair of UCLA's political science department and past president of the Society for Political Methodology. I have been a member of the UCLA faculty since 2001. Prior to that, I was an Assistant Professor of Politics and Public Affairs at Princeton University from 1998 to 2001. I earned my B.A. in Political

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LDTX200

Witness:
Jeffrey Lewis, Ph.D.
Ex 1
12/31/21 D. Myers Byrd

Science and Economics from Wesleyan University in 1990 and my Ph.D. in Political Science from the Massachusetts Institute of Technology (MIT) in 1998. My main area of specialization is quantitative political methodology with a focus on making inferences about preferences and behavior from the analysis of voting patterns in the mass public and in legislatures. I have published on the topic of ecological inference – the challenge that arises when one wants to know how individuals of different types voted in an election, but one can only observe electoral data aggregated to the precinct, county or other summary level. A true, accurate, and complete copy of my curriculum vitae is attached as Exhibit A.

2. I have previously been retained as an expert in relation to nine court cases: one involving allegations of voting machine failure in Florida (Jennings v. Elections Can-vassing Commission of State of Florida), four involving claims of minority vote dilution in California (Avitia v. Tulare Local Healthcare District; Satorre et al. v. San Mateo County Board of Supervisors et al.; Ladonna Yumori-Kaku v. City of Santa Clara); and Pico Neighborhood Association and Maria Loya v. City of Santa Monica), one involving claims of minority vote dilution in Texas (Perez, et al. v. Abbott, et al.), one involving claims of minority vote dilution in North Carolina (Common Cause, et al. v. Lewis), one involving claims of minority vote dilution in Washington (Aguilar v. Yakima County), and one involving the compactness of legislative districts in Illinois (Radogno et al v. Illinois State Board of Elections, et al.). I testified as an expert in the cases of Ladonna Yumori-Kaku v. City of Santa Clara and Pico Neighborhood Association and Maria Loya v. City of Santa Monica.
3. I am being compensated at a rate of $550/hour.
4. In the attached tables and spreadsheet, at Exhibit B, I present summaries of the results of North Carolina general and Democratic primary election contests held in 2014, 2016, 2018, and 2020. In particular, I consider how each contest would have turned out if only the votes of those residing in each current and in each enacted State House, State Senate, and Congressional district had been counted.
5. This exercise allows us to consider the voting strength of the Black voters in each existing and proposed legislative district.

6. For each of these "reconstituted" election contest in each district, I used weighted ecological regression (ER) to estimate the degree of Black voter cohesion and non-Black voter crossover (hereafter "white crossover"). In some cases, the number of voting precincts available for the analysis was too small or Black share of voters was too small to meaningfully apply ER. I omit such contest-district combinations.
7. I further narrow the set of contests to partisan races for executive and legislative offices. And, I only "reconstitute" a given contest within a given district if the data indicate that at least 80 percent of the voters in the given election who resided the district, voted in the given contest.
8. I identify the "Black-preferred" candidate in each contest as the candidate estimated by ER to have received the largest share of Black votes in the given contest or, in the case of single-candidate elections, that candidate if they are a Democrat (single-candidate elections without a Democrat are considered not to have a Black-preferred candidate).
9. I also note whether each candidate is Black and whether each contest includes at least one Black candidate.
10. The tabulations and estimates are based on datasets that I downloaded from the North Carolina Board of Elections (SBOE) website with the exception of a crosswalk between the current and enacted legislative districts and voting precincts used in the 2014, 2016, 2018, and 2020 elections and estimates of Black Voting-Age population (VAP) by district that were provided by Clark Bensen of POLIDATA.
11. The race of each candidate was determined by looking up each candidate listed in the SBOE's candidate list datasets on the North Carolina voter list (also from the SBOE). In some cases, a candidate's race could not be determined because: their legal name matched no voter on the voter list, no race was indicated on the voter list, or they were matched to several voters of different races on the voter list. In total, over 1,800 Black candidates were identified (including many competing in contests not subsequently analyzed for the reasons described above).
12. The demographic composition of voters from each precinct needed to perform ER was derived by merging vote history records from the SBOE to the precinct election returns. Because some counties do not allocate "One Stop" and absentee votes back to precincts (and for other reasons), not all voters can be matched to a voting precinct and not all

precincts can be placed in legislative districts. Where One Stop and absentee ballots were allocated to regular voting precincts, the voting and demography within each precinct was broken down by voting method when performing ER. This is possible because the vote history records (which are used to estimate the fraction of voters in each precinct who were Black) are broken down by voting method (as sometimes are the election returns within each precinct). When a county reported One Stop or absentee votes without allocating them to precincts and where feasible, I aggregated the One Stop and absentee votes in the election returns and the One Stop and absentee voters into a single One Stop and a single absentee precinct. Given the need to break down the votes by legislative district, this was only feasible in counties that fall entirely within a single State House, State Senate, or Congressional district.

13. The attached tables summarize the reconstituted elections analysis. For each district, the tables show averages of many of the quantities described above as well as: the Black-preferred candidate "win rate" (the fraction of Black-preferred candidates who would have won if the contest had only been held in the given district); the percent of Black-preferred candidates who were Democrats; the average number of major-party candidates in the reconstituted contests; the average fraction of voters who were Black; and, an estimate of the average minimum fraction of those voting in the district that would have had to be Black in order for the Black-preferred candidate to expect to get at least 50 percent of the vote (based on the ER estimates and only applied in contests involving two major-party candidates).
14. The tables present separate results for primary and general elections. Separate tallies are also presented that include only those contests that included at least one Black candidate.
15. The attached spreadsheet *minority_preferred_candidates.csv* identifies the minority-preferred candidate in each of the reconstituted contests considered. It includes the following fields:
    a. *district*, an identifier of the district including its chamber, plan, and number in which the contest is reconstituted.
    b. *election_date*, the date of the election
    c. *election_type,* primary or general
    d. *contest,* the electoral contest being reconstituted.

e. *minority_preferred_candidate,* the name of the minority preferred candidate (as identified by ER).

f. *minority_preferred_party,* the party of the minority-preferred candidate.

g. *cand_is_black,* whether the Black-preferred candidate is Black.

h. *has_minority_candidate,* whether the contest included a Black candidate.

i. *wonlost,* identifies the Black-preferred candidate as a "winner" or "loser" of the reconstituted election (highest-vote getter).

j. *pct_vote,* percent of vote won by the Black-preferred candidate in the reconstituted contest.

k. *ER.pct_black,* average share of voters in the ER analyses who were Black.

l. *ER.black_cohesion,* weighted Ecological Regression (ER) estimates of support for Black-preferred candidate among Black voters in the reconstituted election.

m. *ER.white_crossover,* weighted Ecological Regression (ER) estimates of support for the Black-preferred candidate among white (non-Black) voters in the reconstituted election.

n. *ER.black_pct_needed_for_majority,* Uses the ER estimates to infer the minimum share of the voters in the reconstituted election that would generate majority support for the minority-preferred candidate in the reconstituted election. Note that this is the estimated average percentage of Black voters in the contest needed for a majority, not the percentage of Black VAP existing in the district.

o. *Coverage,* the ratio of the total votes cast in the reconstituted election to the most votes cast in any reconstituted contest in the same district and election expressed as a percentage. In many cases, eligibility to participate in a particular contest will only partially overlap with the district in which the reconstituted election is considered. Because the area of overlap may encompass a set of voters who are not representative of the voters a district as whole when the overlap is small, I consider only contests for which this overlap or "coverage" exceeds 80 percent (for example, this include contests for statewide offices).

p. *number_of_candidates,* The number of major-party candidates in the contest.

16. This analysis goes beyond Professor Dunchin's analysis to consider not just 4 primary and 4 general election contests, but over 420 individual contests including over 190 that

include a Black candidate. These contests include both endogenous and exogenous contests for legislative and executive offices ranging from a Recorder of Deeds to the US President. The analysis also expands on Professor Duchin's analysis by estimating the rate of support of each candidate in each contest within each district to capture variation in Black voter cohesion and white cross-over voting across the districts (whereas Professor Duchin estimates a single rate of cohesion and of cross-over voting statewide for the 8 contests that she considers).

17. Using (without endorsing) Professor Duchin's definition of "effective" Black districts (greater than 75 percent Black preferred win rate in races with minority candidates combined with greater than 25 percent Black voting-age population), an analysis of this larger set of election contests identifies as "effective" the enacted districts that Professor Duchin enumerates (with the exceptions of State Senate District 12 and State House District Districts 066 which do not exhibit a 75 percent win rate in the larger dataset and House District 039 for which too few data precinct points were available to apply ER to identify the Black-preferred candidates). It also identifies as "effective" by Duchin's definition as many as seven additional State House districts and four additional State Senate districts. *See* Table 1.
18. Relaxing Professor Duchin's requirement that an "effective" district must have more than 25 percent Black voting-age population, my more expansive analysis suggests the existence of one additional "effective" Congressional district, four additional "effective" State House districts, and two additional "effective" State Senate districts.
19. Further relaxing the definition of "effective" to those districts in which the Black preferred win rate exceeds 66 percent suggests the existence of seven more "effective" State Senate districts and 16 additional "effective" State House districts. *See* Table 1.
20. Increasing the set of contests considered to include contests without Black candidates further lifts the number of apparently "effective" districts under Duchin's definition.
21. Only two of the "effective" districts (by any of the above definitions) are majority Black VAP. Districts with Black-preferred win rates of over 75 percent in the reconstituted elections include two districts with Black voting-age populations below 7 percent and five districts with Black voting-age populations below 20 percent.

Table 1 – Duchin "Effective" Black Districts in Enacted Plans

	House	Senate	Congress
Number of "Effective" Black Districts in enacted plans using Duchin definition	29	12	2
Number of "Effective" Black Districts in enacted plans using Duchin definition but relaxing 25% BVAP and applying win rate of 66%	49	21	5
Number of "Effective" Black Districts in enacted plans using Duchin definition but relaxing 25% BVAP and applying win rate of 50%	88	40	11

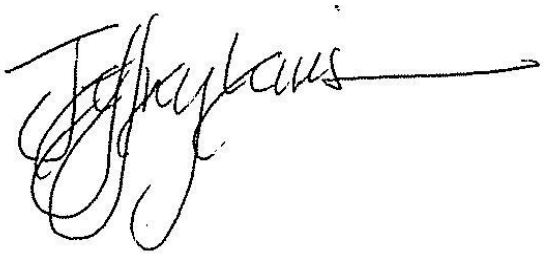
22. In no district, enacted or in 2020, does it appear that a majority Black VAP is needed for that district to regularly generate majority support for minority-preferred candidates in the reconstituted elections.

23. Black voters constitute a powerful political force in North Carolina electoral politics because of their numerical size and highly cohesive voting as well as the sizeable white (non-Black) cross-over vote for Black-preferred candidates that exists particularly in areas of the state in which Black voters are concentrated. As Professor Duchin documents, contemporary Black voting power in North Carolina is such that it is now even possible to draw a set of districts in which Black voters would have effective control (by her definition) of a share of the state's legislative districts that meaningfully exceeds the size of the Black population.

24. I reviewed the "Addendum to Primary Expert Report of Jonathan C. Mattingly, Ph.D." Dr. Mattingly appears to have reconstituted election results in different county cluster options and identified Black VAP in those same clusters. Dr. Mattingly's Addendum is not a racially polarized voting analysis.

CERTIFICATION

I certify that the statements and opinions provided in this report are true and accurate to the best of my knowledge, information, and belief.



Jeffrey B. Lewis, Ph.D.

December 28, 2021
Date

Exhibit A

Jeffrey B. Lewis

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Education

Massachusetts Institute of Technology — Cambridge, MA
Ph.D., Department of Political Science, February 1998.

Wesleyan University — Middletown, CT
B.A., Political Science and Economics with Honors in General Scholarship. June 1990.

Academic Experience

University of California Los Angeles — Los Angeles, CA
Professor of Political Science. July 2012–present.

University of California Los Angeles — Los Angeles, CA
Director, Center for American Politics and Public Policy. July 2017–July 2018.

University of California Los Angeles — Los Angeles, CA
Chair, Department of Political Science. July 2011–June 2017.

University of California Los Angeles — Los Angeles, CA
Associate Professor of Political Science. July 2007–June 2012.

University of California Los Angeles — Los Angeles, CA
Assistant Professor of Political Science. July 2001–June 2007.

Dartmouth College,
Rockefeller Center for the Social Sciences — Hanover, NH
Research Fellow. July 2000–June 2001.

Princeton University — Princeton, NJ
Assistant Professor of Politics and Public Affairs. July 1997–July 2001.

Teaching Interests

Quantitative methods
Elections & Direct democracy
California politics

Grants & Awards

Fellow, Society for Political Methodology, Elected 2019.

Research grant, "For Modernizing the VoteView Website And Software." Madison Initiative. William and Flora Hewlett Foundation (Grant #2016-3870). January 2016. $200k.

Conference/training grant, "Support for Conferences and Mentoring of Women and Underrepresented Groups in Political Methodology," National Science Foundation (NSF-SBE-1628102 with Kosuke Imai), $308k.

Research grant. "Collaborative Research on Dynamic Models of Roll Call Voting." National Science Foundation (NSF-SBS-0611974, with Keith Poole and Howard Rosenthal). July 2006. $394k total ($182k UCLA).

Brian P. Copenhaver Award for Innovation in Teaching with Technology, College of Letters and Sciences, University of California Los Angeles. 2007.

Warren Miller Prize for best article in volume 11 of *Political Analysis*. 2003 (article co-authored with Ken Schultz).

Research grant. "Empirical Testing of Crisis Bargaining Models." National Science Foundation (NSF-SBS-0241647, with Ken Schultz). February 2003. $200k.

Research grant, "Term limits in California." John Randolf and Dora Haynes Foundation, May 2000. $27k.

Research grant, Princeton University Committee on Research in the Humanities and Social Sciences, May 1998.

Harvard/MIT Research Training Group for Positive Political Economy Dissertation Fellowship, 1995-1996.

Sigma Xi Honorary Society, Wesleyan University, 1990.

White Prize for excellence in economics, Wesleyan University, 1990.

Ford Foundation Summer Research Fellowship, Wesleyan University, 1988.

Publications

"The new Voteview.com: preserving and continuing Keith Poole?s infrastructure for scholars, students and observers of Congress," *Public Choice*. 2018, 176:17–32 (with Adam Boche, Aaron Rudkin, and Luke Sonnet).

"Recovering a Basic Space from Issue Scales in R." *Journal of Statistical Software*. 2016, 69(7) (Keith T. Poole, Howard Rosenthal, James Lo, Royce Carroll).

"The Structure of Utility in Spatial Models of Voting," *American Journal of Political Science*. 2013, 56(4):1008–1028 (with Royce Carroll, James Lo, Keith T. Poole, and Howard Rosenthal).

"Economic Crisis, Iraq, and Race: A Study of the 2008 Presidential Election." (*Election Law Journal*. 2010, 9(1): 41–62 (with Michael Herron and Seth Hill).

"Comparing NOMINATE and IDEAL: Points of difference and Monte Carlo tests." *Legislative Studies Quarterly*. 2009, 34:555–592 (with Royce Carroll, James Lo, Keith T. Poole, and Howard Rosenthal).

"Measuring Bias and Uncertainty in DW-NOMINATE Ideal Point Estimates via the Parametric Bootstrap", *Political Analysis*. 2009, 17(3):261–275 (with Royce Carrol, James Lo, Keith T. Poole, and Howard Rosenthal).

"poLCA: An R Package for Polytomous Variable Latent Class Analysis." *Journal of Statistical Software*. 2011, 42(10) (with Drew A. Linzer).

"Scaling Roll Call Votes with Wnominate in R." *Journal of Statistical Software*. 2011, 42(14) (with Keith Poole, James Lo, and Royce Carroll).

"Ballot Formats, Touchscreens, and Undervotes: A Study of the 2006 Midterm Elections in Florida." *Election Law Journal*. 2008. 7(1):25–47 (with Laurin Frisana, Michael C. Herron, and James Honaker).

"An Estimate of Risk Aversion in the U.S. Electorate." *Quarterly Journal of Political Science*. 2007, 2(2):139–154. (with Adam J. Berinsky).

"Ideological Adaptation? The Survival Instinct of Threatened Legislators." *Journal of Politics*. 2007, 69(3):823–843 (with Thad Kousser and Seth Masket).

"Did Ralph Nader Spoil a Gore Presidency? A Ballot-Level Study of Green and Reform Party Voters in the 2000 Presidential Election." *Quarterly Journal of Political Science*. 2007, 2(3):205–226 (with Michael Herron).

"A Return to Normalcy? Revisiting the Effects of Term Limits on Competitiveness and Spending in California Assembly Elections" *State Politics and Policy Quarterly*. 2007, 7(1):20–38 (with Seth Masket).

"Learning about Learning: A Response to Wand." *Political Analysis*. 2006, 14: 121-129 (with Kenneth Schultz).

"Estimating Regression Models in Which the Dependent Variable Is Based on Estimates" *Political Analysis*. 2005, 13(4) (with Drew A. Linzer)

"Beyond the Median: Voter Preferences, District Heterogeneity, and Representation." *Journal of Political Economy*. 2004, 106(6):1364–1383 (with Liz Gerber).

"Measuring Bias and Uncertainty in Ideal Point Estimates via the Parametric Bootstrap." *Political Analysis*. Spring 2004. 12:105–127 (with Keith Poole)

"Extending King's Ecological Inference Model to Multiple Elections using Markov Chain Monte Carlo," Chapter in Gary King, Ori Rosen, and Martin Tanner, Eds. *Ecological Inference: New Methodological Strategies*. Cambridge: Cambridge University Press. 2004.

"Revealing Preferences: Empirical Estimation of a Crisis Bargaining Game with Incomplete Information." *Political Analysis*. 2003, 11(4):345–365 (with Kenneth A. Schultz).

"Understanding King's Ecological Inference Model: A Method-of-moments Approach," *Historical Methods*. 2001, 34(4):170–188.

"Estimating Voter Preference Distributions from Individual-Level Voting Data," *Political Analysis*. 2001, 9(3):275-297.

"No Evidence on Directional vs. Proximity Voting," *Political Analysis*. 1999, 8(1):21-33 (with Gary King).

"Reevaluating the Effect of N-Ach (Need for Achievement) on Economic Growth," *World Development*. 1991, 19(9):1269–1274.

Other Publications

Comment on "McCue, K. F. (2001), 'The Statistical Foundations of the EI method, *The American Statistician*. 2002, 55(3):250.

"Veteran's Adjustment." Chapter in *After the Cold War: Living with Lower Defense Spending*, Congress of the United States, Office of Technology Assessment, OTA-ITE-524. 1992.

Working Papers

Has Joint Scaling Solved the Achen Objection to Miller and Stokes? (with Christopher Tausanovitch, under revision).

Residual Votes in the 2008 Minnesota Senate Race (with Jonathan W. Chipman and Michael C. Herron)

From Punchcards to Touchscreens: Some Evidence from Pasco County, Florida on the Effects of Changing Voting Technology (with Michael C. Herron)

Voting in Low Information Elections: Bundling and Non-Independence of Voter Choice (with Liz Gerber, April 2002)

Dangers of Measurement Error in Non-linear Models: The Case of Directional versus Proximity Voting (April 2002)

A Reply to McCue's Reply to My Comment on "The Statistical Foundations of the EI method"

PhD Students

Committees Chaired or Co-chaired: Ryan Enos (Harvard), Seth Hill (UCSD), James Lo (USC), stonegarden grindlife.
Currently charing or co-chairing five committees.
Committee member on over 35 PhD students (including as an outsider member in Economics and Statistics).

Conference Presentations

American Political Science Association, Philadelphia, September 2016.
Annual Meetings of the Midwest Political Science Association, Chicago, April 2014.
Annual Meetings of the Midwest Political Science Association, Chicago, April 2011.
Summer Meetings of the Political Methodology Society, New Haven, 2009

Annual Meetings of the Midwest Political Science Association, Chicago, April 2006.
American Political Science Association, Chicago, September 2004.
American Political Science Association, Philadelphia, September 2003.
Annual Meetings of the Midwest Political Science Association, Chicago, April 2003.
Summer Meeting of the Political Methodology Society, Seattle, 2002
Annual Meetings of the Public Choice Society, Houston, San Diego, 2002.
Annual Meetings of the Midwest Political Science Association, Chicago, April 2002.
Annual Meetings of the Midwest Political Science Association, Chicago, April 2001.
Annual Meetings of the Midwest Political Science Association, Chicago, April 2000.
Summer Meeting of the Political Methodology Society, College Station Texas, 1999.
Annual Meetings of the Social Science History Association, Chicago, November 1998.
American Political Science Association, Boston, September 1998.
Annual Meetings of the Midwest Political Science Association, Chicago, April 1997.
Annual Meetings of the American Political Science Association, San Francisco,August 1996.
Annual Meetings of the Public Choice Society, Houston, April 1996.
American Political Science Association, Atlanta, August 1989.

Software

Voteview: US Roll call votes and legislator ideologies, 1789–2021: Provides interactive search and visualization of every roll call vote ever taken in the United States Congress. See `https://voteview.com`.

WNominate (v1.2): R package implementing Poole and Rosenthal's W-Nominate estimator co-authored with Keith Poole and James Lo. (`http://cran.r-project.org/web/packages/wnominate/index.html`)

PoLCA (v1.4.1): R package for Polytomous Variable Latent Class Analysis. Co-authored with Drew Linzer. (`http://dlinzer.github.io/poLCA/`)

Data collections

US Congressional roll call voting and related data, 1789–2021: Provides data on every roll call vote ever taken in the United States Congress. See `https://voteview.com`.

US Congressional District Boundaries, 1789–2017. Detailed GIS descriptions of every district in US history (with Brandon DeVine (UCLA), Lincoln Pritcher (UCLA), and Ken Martis (UWV)). See `http://cdmaps.polisci.ucla.edu/`.

109th – 114th Congress Data Project. UCLA. Webpage allows download of up to the hour roll call voting matrices for the current US Congress [Now included in the Voteview project].

California Roll Call Project. UCLA. Collection of roll call voting data from the California Assembly from 1850 to the present. Ongoing (with Seth Masket).

Crisis Bargaining Data Base. UCLA. Codings of post-World War I international crises outcomes in terms of a simple game theoretic model of coercive diplomacy (supported by NSF-SBS-0241647) (with Ken Schultz).

Record of American Democracy Project Harvard University. One of several project leaders. Summer 1995.

University Service

Chair: Executive Committee, Faculty of Letters and Science, UCLA (September 2019–Present)

Vice Chair: Executive Committee, Faculty of Letters and Science, UCLA (2018–2019)

Member: Executive Committee, Faculty of Letters and Science, UCLA (2017–2018); Council on Academic Planning and Budget, UCLA (2019–Present); Classroom Advisory Committee, UCLA (2018–2020); Pathways to Commencement Task Force, UCLA (2013–2014).

Professional Experience

President: Society for Political Methodology (2015–2017).

Vice President/President elect: Society for Political Methodology (2013–2015).

Co-editor: *The American Political Science Review* July 2008–July 2011; *The Political Methodologist*, the APSA Methodology section newsletter. 2004–2007 (with Adam Berinsky and Michael Herron).

Editorial Board Member: *Journal of Politics*, 2005–2008; *Political Analysis* 2005–present.

Panelist: National Science Foundation ad hoc peer review panels (June 2004, February 2008, October 2010); National Science Foundation Political Science Panel (2009–2010).

Departmental review visiting committee member: University of Colorado, 2013; London School of Economics, 2015; University of Michigan, 2015.

Nominations committee member: American Political Science Association, 2011–12, 2012–13.

Program committee member: American Political Science Association Annual Meetings 2003, Political Methodology division head.

Anonymous Referee: *American Political Science Review*, *American Journal of Political Science*, *Journal of Law and Economics*, *World Politics*, *Political Analysis*, *Legislative Studies Quarterly*, *Sociological Methods Review*,

Journal of Politics, *Journal of Theoretical Politics*, and *Political Behavior*, *Perspectives on Politics*, *Public Opinion Quarterly*, *Journal of Political Economy*.

Discussant/Panel Chair Political Methodology Conference (1997, 2004, 2005, 2015), Midwest Political Science Association meetings (1998, 2005, 2006). American Political Science Association meetings (1998, 2002, 2003, 2006, 2010, 2016). Public Choice Society (1996, 2002)

Work Experience

Polimetrix Palo Alto, CA
Director of Statistics, 2003–2007.

Office of Technology Assessment, U.S. Congress Washington, DC
Research Analyst, Industry Technology and Employment program. October 1990 – August 1992.

Selected Invited Lectures

American Politics Seminar, Political Science Department, Columbia University, 1998

Political Economy Seminar, Political Science Department, Michigan University, 1999

Political Economy Seminar, Graduate School of Business, Stanford University, 1999

Political Economy Seminar, Politics & Economics Departments, Princeton University, 1998

Southern California Methods Program, UC Riverside, November 2001.

Ideal-Point Estimation Conference, Washington University St. Louis, September 2002.

American Politics Seminar, Political Science Department, Yale University, 2003.

Political Economy Seminar, Politics & Economics Departments, Princeton University, Spring 2004.

Political Economy Seminar, Politics Department, Massachusetts Institute of Technology, Spring 2004.

Empirical Implications of Theoretical Models Program, Washington University, St. Louis, June 2004.

Multilevel Methods Conference, Center for the Study of Democratic Politics, Woodrow Wilson School of Public and International Affairs, Princeton University, October 2004.

Empirical Implications of Theoretical Models Program, University of California Berkeley (one week module co-taught with Kenneth A. Schultz). June 2005.

Roll Call Voting Conference, Department of Political Science, University of California, San Diego. May 2006.

Measures of Legislators' Policy Preferences and the Dimensionality of Policy Spaces Conference Department of Political Science, Washington University, St. Louis. November 2007.

Causal Inference. Business School. University of Southern California. June 2010.

How to Scrape Web Pages. Summer Methods Program. Department of Sociology. Stanford University, July 2010, 2011, 2012, 2013, 2014, 2015.

Lectures on Ecological Inference. Summer Methods Training Program, Academia Senica, Taipei, Taiwan. July 2010.

Applied Statistics Workshop. Department of Government. Harvard University, April 2011.

Methods Workshop. Department of Political Science, Stanford University. June 2011.

Conference on "Political Representation: Fifty Years After Miller & Stokes." Vanderbilt University, March 2013

Center for the Study of Democratic Politics (CSDP) Workshop, Princeton University, April 2015.

Ideal Point Models in Political Science Workshop, MIT, April 2015.

Interdisciplinary Seminar in Quantitative Methods (ISQM) Workshop, University of Michigan, September 2015.

Political Economy Seminar, Graduate School of Business, Stanford University, April 2019,

Exhibit B

Table 1: General Elections

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
CD20-001	41.9	17	100	2.0	100	56	39	100	24	35
CD20-002	18.2	35	100	2.0	43	49	14	100	41	15
CD20-003	18.7	18	100	2.0	0	38	18	99	24	35
CD20-004	24.4	17	100	2.0	100	68	22	94	40	19
CD20-005	10.7	16	100	2.0	0	34	10	100	25	33
CD20-006	32.0	17	100	2.0	100	60	30	100	42	14
CD20-007	15.4	17	100	2.0	0	42	13	93	33	29
CD20-008	25.9	19	100	2.0	11	48	29	100	27	32
CD20-009	17.4	18	100	2.0	0	44	15	100	32	27
CD20-010	10.1	17	100	2.0	0	32	11	100	26	33
CD20-012	34.1	22	100	1.9	100	72	39	100	54	6
CD20-013	13.9	17	100	2.0	0	33	12	100	23	35
CD21-001	22.4	19	100	2.0	0	39	19	97	25	35
CD21-002	39.1	16	100	2.0	94	55	35	100	25	33
CD21-003	15.7	17	100	2.0	0	43	14	95	33	27
CD21-004	27.5	16	100	2.0	38	49	34	100	27	31
CD21-005	23.2	35	100	2.0	46	50	18	100	39	17
CD21-006	20.4	17	100	2.0	100	66	17	100	42	13
CD21-007	15.3	17	100	2.0	0	39	13	100	27	31
CD21-008	16.5	17	100	2.0	0	40	14	100	29	30
CD21-009	36.3	22	100	1.9	100	75	42	100	58	2
CD21-010	16.2	16	100	2.0	0	35	12	100	24	34
CD21-011	19.2	16	100	2.0	0	37	16	100	27	31
CD21-012	17.1	16	100	2.0	0	43	18	100	33	25
CD21-013	14.8	16	100	2.0	0	38	14	100	29	30
LD20-001	36.6	19	100	2.0	21	48	28	100	20	37
LD20-002	25.7	20	100	2.0	5	43	25	100	25	33
LD20-003	19.2	24	100	2.0	4	41	19	98	28	31
LD20-004	20.6	20	100	2.0	0	38	17	100	17	39

Table 1: General Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-005	41.0	20	100	2.0	100	56	34	100	20	37
LD20-006	7.1	21	100	2.0	0	36	7	84	28	43
LD20-007	22.4	27	100	2.0	15	46	24	100	29	29
LD20-008	42.5	23	100	2.0	65	54	35	100	30	31
LD20-009	27.9	23	100	2.0	9	45	21	100	31	31
LD20-010	22.0	20	100	2.0	0	37	21	100	17	40
LD20-011	15.4	37	100	2.0	89	57	13	100	50	5
LD20-012	36.9	23	100	2.0	39	49	38	100	18	39
LD20-013	7.9	11	100	2.0	0	30	9	95	22	39
LD20-014	17.8	14	100	2.0	0	40	19	100	26	33
LD20-015	10.7	14	100	2.0	0	32	12	100	22	36
LD20-016	18.3	22	100	2.0	0	37	17	95	25	36
LD20-017	10.1	33	100	2.0	0	37	10	88	31	33
LD20-018	21.1	24	100	1.9	100	66	21	100	56	5
LD20-019	6.3	8	100	2.0	0	39	6	100	35	22
LD20-020	5.5	1	100	1.0	100	100	3	.	.	.
LD20-021	37.4	22	100	2.0	36	47	32	99	23	36
LD20-022	29.3	19	100	2.0	11	45	29	100	19	38
LD20-023	50.6	19	100	2.0	100	62	37	100	18	39
LD20-024	38.2	21	100	2.0	95	55	36	100	26	32
LD20-025	42.6	13	100	2.0	15	43	34	100	18	39
LD20-026	16.5	25	100	2.0	0	32	11	100	24	34
LD20-027	51.6	23	100	1.9	100	67	45	100	29	35
LD20-028	15.8	23	100	2.0	0	29	10	100	21	37
LD20-029	37.2	26	100	1.8	100	82	40	100	70	0
LD20-030	28.2	19	100	1.9	100	60	25	100	47	12
LD20-031	39.8	24	100	1.8	100	80	48	100	62	1
LD20-032	48.1	25	100	1.9	100	67	50	100	35	29
LD20-033	39.9	36	100	2.0	100	64	37	100	43	12

Table 1: General Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-034	11.5	36	100	2.0	19	43	6	100	39	16
LD20-035	18.0	37	57	2.0	43	45	11	66	43	31
LD20-036	7.5	14	50	2.0	50	52	6	65	52	16
LD20-037	11.3	36	100	2.0	0	36	9	100	30	28
LD20-038	39.4	43	100	1.9	100	77	42	98	62	2
LD20-040	11.3	38	100	2.0	8	40	7	100	35	22
LD20-041	7.1	13	92	2.0	46	50	6	88	47	8
LD20-042	38.1	25	100	1.9	100	71	49	100	40	24
LD20-043	33.9	23	100	2.0	30	50	29	100	30	32
LD20-044	48.1	26	100	1.9	100	75	54	100	45	19
LD20-045	31.4	26	100	2.0	65	52	32	99	30	32
LD20-046	25.0	21	100	2.0	29	45	27	98	25	33
LD20-047	23.8	30	100	1.9	47	55	24	98	42	25
LD20-048	35.5	19	100	2.0	100	56	40	100	28	30
LD20-049	12.3	36	100	2.0	61	52	7	100	49	7
LD20-050	17.5	17	100	2.0	12	43	23	89	28	34
LD20-052	11.0	26	100	2.0	0	29	10	99	22	36
LD20-054	12.9	30	53	2.0	3	44	9	91	39	21
LD20-055	26.2	20	100	2.0	0	43	23	100	23	35
LD20-056	10.2	36	100	1.7	100	79	10	100	76	0
LD20-057	39.7	30	100	1.9	100	66	39	99	45	17
LD20-058	43.1	29	100	1.9	100	73	44	98	54	6
LD20-059	28.6	26	100	2.0	0	39	23	100	21	36
LD20-060	34.6	26	100	2.0	96	60	36	100	36	21
LD20-061	40.0	30	100	1.9	100	70	32	100	55	6
LD20-062	13.7	28	100	2.0	0	36	11	100	28	30
LD20-063	24.8	28	100	2.0	39	49	24	100	33	25
LD20-064	15.1	27	100	2.0	0	40	14	100	30	29
LD20-065	19.6	26	100	2.0	0	36	19	99	22	37

Table 1: General Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-066	24.0	18	100	2.0	11	44	20	100	25	33
LD20-067	7.9	23	100	2.0	0	23	6	100	17	39
LD20-068	8.4	24	100	2.0	0	35	8	100	30	28
LD20-069	11.6	25	100	2.0	0	35	11	100	27	32
LD20-070	7.2	30	100	2.0	0	24	6	100	19	38
LD20-071	40.3	25	100	2.0	100	73	46	99	50	4
LD20-072	34.4	25	100	2.0	100	71	34	100	56	1
LD20-073	14.6	21	100	2.0	0	36	19	100	28	31
LD20-074	11.4	26	100	2.0	0	45	11	100	38	19
LD20-075	15.3	26	100	2.0	0	38	15	100	27	31
LD20-076	21.6	23	100	2.0	0	41	20	100	26	32
LD20-077	7.3	20	100	2.0	0	26	6	100	19	38
LD20-078	6.1	1	100	2.0	0	24	7	100	19	38
LD20-079	22.3	23	100	2.2	4	37	16	98	19	39
LD20-080	9.5	24	100	2.0	0	23	8	100	16	40
LD20-081	9.6	25	100	2.0	0	26	8	100	20	38
LD20-082	20.2	13	100	1.9	8	45	18	100	34	30
LD20-083	19.5	24	100	2.0	46	48	12	100	26	32
LD20-084	14.1	26	100	2.0	0	32	13	100	22	36
LD20-086	6.0	28	100	2.0	4	36	6	100	31	27
LD20-088	16.0	19	100	1.9	100	59	18	100	51	4
LD20-089	7.9	24	100	2.0	0	28	7	100	22	36
LD20-091	4.8	12	100	2.0	0	23	6	100	17	40
LD20-092	40.2	24	100	1.8	100	76	46	100	55	7
LD20-095	9.6	24	100	2.0	0	33	8	100	28	31
LD20-096	8.9	24	100	2.0	0	36	7	100	30	28
LD20-098	9.2	27	100	2.0	7	43	9	100	38	20
LD20-099	36.0	20	100	2.0	100	64	42	100	38	19
LD20-100	30.5	24	100	1.8	100	76	35	100	63	0

Table 1: General Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-101	48.0	27	100	1.9	100	78	55	100	51	13
LD20-102	33.8	25	100	1.8	100	82	39	99	71	0
LD20-103	14.2	21	100	2.0	19	48	13	100	40	17
LD20-104	12.0	25	100	2.0	20	46	10	100	41	16
LD20-105	12.9	20	100	2.0	50	50	13	100	42	14
LD20-106	46.3	30	100	1.7	100	87	59	99	71	1
LD20-107	53.6	26	100	1.8	100	82	57	100	60	3
LD20-108	19.5	31	100	2.0	6	40	17	100	28	32
LD20-109	15.3	30	100	2.0	7	39	12	100	31	30
LD20-110	14.6	19	100	2.0	0	28	13	100	18	39
LD20-111	22.8	29	100	2.0	3	41	23	100	24	35
LD20-112	9.2	36	100	2.0	0	31	8	99	25	34
LD20-115	6.9	12	100	2.0	100	61	6	100	49	6
LD20-116	7.2	10	100	2.0	60	53	7	100	49	5
LD21-001	17.7	21	100	2.0	0	38	15	93	25	37
LD21-002	23.7	22	100	2.0	9	43	23	99	26	32
LD21-003	19.4	22	100	2.0	5	41	17	99	29	30
LD21-004	24.9	17	100	2.0	0	35	20	100	19	38
LD21-005	37.5	20	100	2.0	85	53	32	100	19	38
LD21-007	22.2	27	100	2.0	15	46	23	100	30	29
LD21-008	44.2	23	100	2.0	87	57	37	100	32	29
LD21-009	24.6	24	100	2.0	4	41	19	97	28	36
LD21-010	33.1	23	100	2.0	4	41	28	99	19	38
LD21-011	14.2	36	100	2.0	81	55	11	100	49	5
LD21-012	37.7	18	100	2.0	11	47	34	100	19	38
LD21-013	8.3	21	100	2.0	0	30	7	96	24	36
LD21-014	17.8	14	100	2.0	0	40	19	100	26	33
LD21-015	10.6	14	100	2.0	0	32	13	100	22	36
LD21-016	13.2	25	100	2.0	0	34	14	93	24	38

Table 1: General Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-017	10.3	33	100	2.0	0	38	10	88	32	32
LD21-018	21.6	24	100	1.9	100	66	22	100	57	5
LD21-019	5.1	8	100	2.0	0	37	5	100	33	25
LD21-020	5.3	1	100	1.0	100	100	3	.	.	.
LD21-021	10.8	35	100	2.0	0	38	7	92	34	28
LD21-022	27.7	20	100	2.0	0	41	26	100	19	38
LD21-023	52.5	19	100	2.0	100	62	39	100	17	39
LD21-024	36.6	21	100	2.0	86	54	36	100	26	32
LD21-025	40.0	21	100	2.0	33	46	29	100	18	39
LD21-027	50.8	21	100	2.0	100	64	48	100	27	31
LD21-028	16.2	22	100	2.0	0	28	11	100	19	38
LD21-029	38.3	24	100	1.8	100	80	44	100	65	0
LD21-030	33.0	23	100	1.8	100	81	35	100	71	0
LD21-031	38.1	5	100	1.0	100	100	45	.	.	.
LD21-032	42.4	19	100	1.9	100	63	43	100	35	31
LD21-033	29.8	43	100	1.9	100	77	30	100	67	0
LD21-034	18.2	36	100	2.0	56	51	13	100	44	11
LD21-036	8.0	9	100	2.0	0	36	7	100	31	28
LD21-038	43.6	2	100	1.0	100	100	47	.	.	.
LD21-040	10.7	23	100	2.0	9	44	6	100	41	15
LD21-042	38.1	25	100	1.9	100	71	49	100	40	24
LD21-043	34.8	23	100	2.0	43	51	30	100	31	31
LD21-044	48.1	26	100	1.9	100	75	54	100	45	19
LD21-045	30.3	25	100	2.0	32	49	31	99	26	33
LD21-046	28.5	21	100	2.0	14	44	27	100	22	36
LD21-047	21.5	29	100	1.9	48	57	23	96	45	22
LD21-048	35.5	19	100	2.0	100	56	40	100	28	30
LD21-049	13.0	36	100	2.0	47	50	8	100	46	9
LD21-050	17.9	17	100	2.0	12	44	25	90	28	34

Table 1: General Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-052	22.3	20	100	2.0	20	46	22	99	24	34
LD21-054	11.1	31	58	2.0	6	44	10	86	39	23
LD21-055	24.0	20	100	2.0	0	42	21	100	24	34
LD21-056	10.1	36	100	1.7	100	79	10	100	76	0
LD21-057	39.7	30	100	1.9	100	66	39	99	45	17
LD21-058	42.8	29	100	1.9	100	72	44	99	52	8
LD21-059	26.6	26	100	2.0	0	37	20	100	21	36
LD21-060	34.9	26	100	2.0	100	61	37	100	37	20
LD21-061	40.8	30	100	1.9	100	70	34	100	55	6
LD21-062	13.3	28	100	2.0	0	35	10	100	28	30
LD21-063	24.3	29	100	2.0	24	48	22	100	34	25
LD21-064	15.5	28	100	2.0	0	40	14	100	30	29
LD21-065	18.9	26	100	2.0	0	36	19	99	22	36
LD21-066	27.2	35	100	2.0	66	53	22	100	39	17
LD21-067	13.0	21	100	2.0	0	31	13	100	21	36
LD21-068	8.1	24	100	2.0	0	35	7	100	30	28
LD21-069	11.6	21	100	2.0	0	33	10	100	26	33
LD21-070	7.0	30	100	2.0	0	24	6	100	19	38
LD21-071	39.5	24	100	2.0	100	71	45	98	49	4
LD21-072	33.7	24	100	2.0	100	69	32	100	54	1
LD21-073	17.0	13	100	2.0	0	40	12	100	26	33
LD21-074	11.3	26	100	2.0	0	43	10	100	36	22
LD21-075	15.3	26	100	2.0	0	38	15	100	27	31
LD21-076	20.4	24	100	2.0	0	39	19	100	25	33
LD21-077	5.5	19	100	2.0	0	26	6	100	19	38
LD21-078	5.5	1	100	2.0	0	26	5	92	23	39
LD21-079	16.9	21	100	2.0	0	38	12	90	27	37
LD21-080	9.4	24	100	2.0	0	24	9	100	17	40
LD21-081	9.6	25	100	2.0	0	26	9	100	20	38

Table 1: General Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-082	21.0	25	100	2.0	4	39	16	100	28	34
LD21-083	11.9	18	100	2.0	0	28	8	100	22	36
LD21-084	16.0	26	100	2.0	0	34	15	100	23	35
LD21-086	6.1	28	100	2.0	4	35	6	100	31	28
LD21-088	23.3	19	100	1.9	100	64	23	100	53	5
LD21-089	6.7	24	100	2.0	0	26	6	100	21	36
LD21-091	14.1	19	100	2.0	0	37	19	100	31	28
LD21-092	39.1	24	100	1.8	100	74	44	100	54	10
LD21-095	7.6	24	100	2.0	0	32	5	100	28	30
LD21-096	9.9	25	100	2.0	0	36	9	100	30	28
LD21-098	7.5	27	100	2.0	0	41	7	100	37	20
LD21-099	46.8	28	100	1.8	100	82	57	100	59	2
LD21-100	31.0	24	100	1.8	100	76	35	100	63	0
LD21-101	46.8	26	100	1.8	100	76	52	100	51	13
LD21-102	37.6	26	100	1.8	100	84	44	99	73	0
LD21-103	11.8	22	100	2.0	0	43	12	99	35	23
LD21-104	8.5	26	100	2.0	0	45	7	100	41	15
LD21-105	12.2	24	100	2.0	42	49	13	100	42	13
LD21-106	43.4	27	100	1.8	100	83	54	99	64	1
LD21-107	47.4	23	100	1.8	100	77	49	100	55	9
LD21-108	19.3	30	100	2.0	3	38	16	100	26	32
LD21-109	16.8	17	100	1.9	6	42	14	100	33	31
LD21-110	15.7	19	100	2.0	0	34	19	100	19	38
LD21-111	16.4	19	100	2.0	0	31	14	100	20	38
LD21-112	27.8	22	100	1.9	100	74	37	100	59	1
LD21-113	6.8	18	100	2.0	0	33	6	96	27	33
LD21-114	7.6	13	100	1.9	100	67	7	100	66	0
LD21-115	6.3	7	100	2.0	29	49	5	100	46	7
SD20-001	24.6	20	100	2.0	0	45	19	96	25	34

Table 1: General Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD20-002	14.1	21	100	2.0	0	35	15	99	25	34
SD20-003	42.2	18	100	2.0	100	55	42	100	23	35
SD20-004	46.5	19	100	2.0	100	60	40	100	24	35
SD20-005	34.8	20	100	2.0	100	54	29	100	26	32
SD20-006	14.5	22	100	2.0	0	34	16	98	21	38
SD20-007	33.6	19	100	2.0	5	47	36	100	20	38
SD20-008	12.6	18	100	2.0	0	38	11	86	31	34
SD20-009	12.0	22	100	1.9	64	57	10	100	52	8
SD20-010	20.1	20	100	2.0	0	39	20	100	18	39
SD20-011	27.5	20	100	2.0	25	48	22	100	22	35
SD20-012	18.8	22	100	2.0	0	42	16	100	24	34
SD20-013	25.1	20	100	2.0	40	47	25	99	27	31
SD20-014	32.1	37	100	2.0	100	65	31	100	49	6
SD20-015	18.1	35	100	2.0	37	45	12	100	38	19
SD20-016	12.9	37	100	2.0	46	50	9	100	45	10
SD20-017	8.8	36	100	2.0	0	39	7	90	35	27
SD20-018	24.4	20	100	2.0	5	44	22	100	28	30
SD20-019	33.6	22	100	2.0	77	53	32	100	32	30
SD20-020	35.4	24	100	1.8	100	78	40	100	64	1
SD20-021	41.2	20	100	2.0	100	67	50	100	34	24
SD20-022	30.0	16	100	2.0	38	49	27	100	29	29
SD20-023	11.1	25	56	1.9	56	56	10	82	52	14
SD20-024	22.0	22	100	2.0	0	44	20	100	31	28
SD20-025	23.4	19	100	2.0	5	43	24	100	23	35
SD20-026	12.6	25	100	2.0	0	26	8	100	19	38
SD20-027	24.0	26	100	2.0	23	44	20	100	30	28
SD20-028	43.9	28	100	1.9	100	72	42	100	53	8
SD20-029	10.5	22	100	2.0	0	28	9	100	19	39
SD20-030	14.7	19	100	2.0	0	33	17	99	21	37

Table 1: General Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD20-031	22.0	19	100	2.0	5	45	23	100	30	29
SD20-032	23.9	23	100	2.0	96	57	23	100	45	10
SD20-033	14.4	18	100	2.0	0	31	12	100	22	36
SD20-034	10.1	21	100	2.0	0	31	10	100	25	33
SD20-035	12.2	22	100	2.0	0	36	12	100	28	31
SD20-036	17.9	24	100	2.0	0	41	12	100	24	34
SD20-037	13.8	17	100	2.0	65	50	12	100	43	11
SD20-038	42.8	26	100	1.8	100	82	50	99	65	0
SD20-039	21.3	18	100	2.0	100	57	24	100	44	11
SD20-040	38.7	24	100	1.8	100	77	48	100	56	6
SD20-041	29.1	21	100	2.0	100	58	30	100	40	16
SD20-042	7.9	18	100	2.0	0	31	6	100	26	33
SD20-043	17.4	29	100	2.0	7	38	15	100	28	33
SD20-044	13.1	22	100	2.0	0	32	16	100	21	37
SD20-046	5.5	1	100	2.0	0	28	5	100	26	32
SD20-049	6.4	11	100	2.0	100	61	6	100	53	2
SD21-001	28.8	18	100	2.0	22	47	20	96	24	35
SD21-002	29.3	16	100	2.0	12	46	23	100	26	32
SD21-003	25.9	18	100	2.0	0	43	26	100	23	35
SD21-004	34.1	17	100	2.0	35	49	33	100	23	35
SD21-005	39.3	19	100	2.0	100	57	31	100	26	33
SD21-006	13.8	22	100	2.0	0	32	15	99	20	38
SD21-007	11.5	22	100	1.9	64	57	10	100	52	8
SD21-008	13.9	17	100	2.0	0	38	11	85	31	35
SD21-009	23.1	16	100	2.0	0	38	20	99	23	36
SD21-010	15.9	22	100	2.0	0	38	10	100	21	36
SD21-011	35.7	17	100	2.0	71	52	32	100	27	31
SD21-012	19.6	22	100	2.0	0	42	16	100	24	34
SD21-013	20.5	18	100	2.0	0	43	22	99	28	31

Table 1: General Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD21-014	41.5	35	100	2.0	100	63	39	100	39	17
SD21-015	13.9	36	100	2.0	67	54	9	100	50	6
SD21-016	8.1	36	100	2.0	33	46	6	100	43	12
SD21-017	10.1	36	100	2.0	0	36	8	99	31	28
SD21-018	21.5	36	100	2.0	53	51	16	100	41	14
SD21-019	45.0	24	100	1.9	100	70	46	100	44	23
SD21-020	26.2	21	81	2.0	81	55	16	88	48	8
SD21-021	18.3	18	100	2.0	0	39	21	99	23	35
SD21-022	33.2	18	100	2.0	100	62	30	100	46	9
SD21-023	16.0	16	100	2.0	100	65	24	84	35	26
SD21-024	28.4	17	100	2.0	59	53	31	98	30	29
SD21-025	17.1	22	100	2.0	5	40	16	100	29	30
SD21-026	16.8	22	100	2.0	0	34	16	100	22	36
SD21-027	26.2	25	100	2.0	68	52	22	99	39	18
SD21-028	49.5	26	100	1.9	100	74	50	99	50	11
SD21-029	17.3	16	100	2.0	0	35	13	100	21	37
SD21-030	8.8	18	100	2.0	0	25	7	100	19	38
SD21-031	11.5	20	100	2.0	0	37	12	100	29	29
SD21-032	33.8	24	100	2.0	100	68	35	99	51	2
SD21-033	14.4	18	100	2.0	0	32	13	100	22	36
SD21-034	18.9	24	100	2.0	21	45	13	100	25	33
SD21-035	11.1	22	100	2.0	0	35	10	100	28	31
SD21-037	10.7	22	100	2.0	0	33	10	100	26	32
SD21-038	33.4	19	100	2.0	100	62	35	100	42	13
SD21-039	39.0	23	100	1.8	100	76	48	100	55	8
SD21-040	47.5	25	100	1.8	100	86	59	97	69	0
SD21-041	10.0	20	100	2.0	0	44	9	100	38	19
SD21-042	20.3	18	100	1.9	100	62	20	100	53	2
SD21-043	17.9	29	100	2.0	7	39	15	100	28	32

Table 1: General Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD21-044	12.7	22	100	2.0	0	33	15	100	20	37
SD21-045	7.1	21	100	2.0	0	31	7	100	26	32
SD21-049	6.9	12	100	1.9	100	65	6	100	54	1

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Table 2: Primary Elections

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
CD20-001	41.9	17	100	4.0	100	61	62	69	47	10
CD20-002	18.2	22	100	3.6	68	56	25	69	52	16
CD20-003	18.7	18	100	3.9	78	55	40	66	48	19
CD20-004	24.4	20	100	3.8	80	61	33	67	57	9
CD20-005	10.7	19	100	3.8	58	52	22	64	48	14
CD20-006	32.0	18	100	4.1	72	53	47	60	46	19
CD20-007	15.4	20	100	3.8	80	53	29	63	50	4
CD20-008	25.9	17	100	4.0	76	54	52	60	48	17
CD20-009	17.4	20	100	4.3	60	50	32	64	45	10
CD20-010	10.1	18	100	3.9	72	52	25	62	49	24
CD20-011	3.7	2	100	3.5	50	50	5	82	46	26
CD20-012	34.1	23	100	3.6	87	61	54	69	51	17
CD20-013	13.9	18	100	3.9	78	56	33	61	53	11
CD21-001	22.4	18	100	3.9	78	55	42	66	48	16
CD21-002	39.1	17	100	4.0	100	61	60	70	47	11
CD21-003	15.7	22	100	3.7	68	53	27	66	46	11
CD21-004	27.5	17	100	4.0	71	54	55	61	47	17
CD21-005	23.2	21	100	3.6	71	58	32	69	54	16
CD21-006	20.4	18	100	4.3	61	50	24	74	45	19
CD21-007	15.3	18	100	3.9	67	52	31	62	48	22
CD21-008	16.5	18	100	3.9	72	52	35	63	46	22
CD21-009	36.3	23	100	3.6	83	61	55	69	51	17
CD21-010	16.2	18	100	3.9	78	53	35	62	48	22
CD21-011	19.2	17	100	4.0	71	53	35	64	47	20
CD21-012	17.1	19	100	3.8	74	53	36	63	48	18
CD21-013	14.8	20	100	3.9	80	54	31	65	49	10
CD21-014	3.6	2	100	3.5	50	50	5	82	46	26
LD20-001	36.6	18	100	3.9	89	57	57	73	38	17
LD20-002	25.7	18	100	3.9	89	58	46	71	47	10

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Table 2: Primary Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-003	19.2	22	100	3.6	64	54	41	66	44	22
LD20-004	20.6	18	100	3.9	89	58	52	70	45	10
LD20-005	41.0	20	100	3.7	95	61	61	69	47	15
LD20-006	7.1	16	100	4.1	75	52	15	64	51	6
LD20-007	22.4	23	100	3.5	96	66	49	81	52	2
LD20-008	42.5	19	100	3.8	95	60	59	67	49	12
LD20-009	27.9	19	100	3.8	79	58	38	67	52	8
LD20-010	22.0	17	100	4.0	76	54	44	72	36	15
LD20-011	15.4	22	100	3.6	50	47	15	70	42	25
LD20-012	36.9	18	100	3.9	89	60	61	67	48	5
LD20-013	7.9	17	100	4.0	65	52	22	66	47	9
LD20-014	17.8	16	100	4.1	94	56	47	62	51	11
LD20-015	10.7	16	100	4.1	75	52	38	62	46	8
LD20-016	18.3	19	100	3.8	79	52	39	61	46	4
LD20-017	10.1	22	100	3.6	73	55	25	64	51	12
LD20-018	21.1	19	100	3.8	79	56	35	62	53	11
LD20-019	6.3	20	100	3.8	55	51	10	64	49	10
LD20-020	5.5	15	100	4.1	60	54	8	77	52	5
LD20-021	37.4	23	100	3.6	87	56	63	62	45	15
LD20-022	29.3	23	100	3.7	91	58	56	70	43	7
LD20-023	50.6	21	100	3.8	86	61	66	67	46	11
LD20-024	38.2	19	100	3.8	95	63	63	68	52	10
LD20-025	42.6	12	100	4.2	92	57	69	63	46	10
LD20-026	16.5	19	100	3.8	63	53	35	66	46	24
LD20-027	51.6	23	100	3.6	78	57	59	71	37	30
LD20-028	15.8	19	100	3.8	95	56	35	65	51	7
LD20-029	37.2	24	100	3.6	67	61	37	78	50	12
LD20-030	28.2	23	100	3.6	70	59	32	73	52	13
LD20-031	39.8	24	100	3.6	92	63	57	73	49	14

Table 2: Primary Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-032	48.1	20	100	3.7	100	68	65	78	51	8
LD20-033	39.9	23	100	3.6	83	62	58	74	48	16
LD20-034	11.5	22	100	3.6	32	42	12	73	38	39
LD20-035	18.0	24	100	3.5	71	58	31	67	55	18
LD20-036	7.5	24	100	3.5	58	52	13	62	50	13
LD20-037	11.3	23	100	3.6	57	52	23	63	49	13
LD20-038	39.4	22	100	3.5	77	60	52	68	53	22
LD20-040	11.3	21	100	3.6	43	47	17	70	42	25
LD20-041	7.1	22	100	3.6	41	46	11	73	43	23
LD20-042	38.1	10	100	3.0	90	61	76	67	42	12
LD20-043	33.9	19	100	3.9	79	52	51	59	46	26
LD20-044	48.1	19	100	3.9	84	56	76	60	44	32
LD20-045	31.4	20	100	3.9	75	54	60	62	43	25
LD20-046	25.0	18	100	4.0	89	52	41	61	46	11
LD20-047	23.8	24	100	3.7	75	51	23	68	46	8
LD20-048	35.5	22	100	3.7	91	58	63	67	44	16
LD20-049	12.3	22	100	3.6	32	42	10	68	39	37
LD20-050	17.5	20	100	3.8	60	51	28	61	48	13
LD20-052	11.0	18	100	3.9	72	56	26	62	54	9
LD20-054	12.9	18	100	3.9	67	55	18	63	54	0
LD20-055	26.2	20	100	4.1	75	52	51	74	35	21
LD20-056	10.2	22	100	3.8	36	42	8	77	40	29
LD20-057	39.7	20	100	3.9	80	56	56	63	46	18
LD20-058	43.1	21	100	3.8	76	55	60	62	46	25
LD20-059	28.6	21	100	3.9	76	55	60	64	41	19
LD20-060	34.6	20	100	3.9	85	58	60	64	48	12
LD20-061	40.0	20	100	3.9	70	54	35	63	49	17
LD20-062	13.7	21	100	3.8	67	51	27	64	46	9
LD20-063	24.8	20	100	3.8	80	55	43	62	49	13

Table 2: Primary Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-064	15.1	20	100	3.9	65	52	30	60	48	24
LD20-065	19.6	18	100	3.9	89	56	44	66	49	16
LD20-066	24.0	18	100	4.1	78	52	42	63	43	10
LD20-067	7.9	18	100	3.9	61	50	22	70	44	13
LD20-068	8.4	19	100	4.1	84	57	25	65	54	4
LD20-069	11.6	19	100	3.9	79	54	31	64	49	5
LD20-070	7.2	18	100	3.9	83	56	19	67	53	16
LD20-071	40.3	23	100	3.7	87	58	62	63	50	14
LD20-072	34.4	23	100	3.7	70	54	40	65	46	20
LD20-073	14.6	18	100	4.0	72	51	36	64	44	21
LD20-074	11.4	19	100	3.9	63	50	23	64	46	8
LD20-075	15.3	20	100	3.8	75	52	37	65	44	24
LD20-076	21.6	19	100	3.8	95	56	42	61	53	19
LD20-077	7.3	19	100	3.9	79	54	23	62	51	8
LD20-078	6.1	18	100	3.9	67	53	19	62	51	12
LD20-079	22.3	19	100	4.1	84	55	41	68	46	13
LD20-080	9.5	18	100	3.9	83	56	26	63	53	16
LD20-081	9.6	18	100	3.9	78	56	24	62	54	9
LD20-082	20.2	10	100	2.8	100	61	42	70	55	7
LD20-083	19.5	18	100	3.9	78	53	37	64	46	25
LD20-084	14.1	18	100	3.9	89	52	31	64	47	9
LD20-086	6.0	20	100	3.7	65	54	14	66	52	16
LD20-087	5.1	19	100	3.8	74	52	13	66	49	11
LD20-088	16.0	14	100	4.3	64	55	24	67	51	13
LD20-089	7.9	17	100	4.0	88	55	23	61	54	1
LD20-090	3.3	17	100	3.9	53	47	8	70	45	19
LD20-091	4.8	19	100	3.8	63	53	13	65	50	29
LD20-092	40.2	21	100	3.6	81	60	64	67	48	12
LD20-094	5.7	23	100	3.8	52	46	12	58	44	14

Table 2: Primary Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-095	9.6	18	100	3.9	67	51	22	61	48	11
LD20-096	8.9	17	100	4.0	71	50	17	59	48	16
LD20-097	5.5	18	100	3.9	61	55	15	67	52	8
LD20-098	9.2	18	100	3.9	56	54	18	63	52	21
LD20-099	36.0	23	100	3.6	87	62	65	70	47	15
LD20-100	30.5	20	100	3.7	80	57	41	66	51	19
LD20-101	48.0	21	100	3.6	90	62	72	69	44	19
LD20-102	33.8	19	100	4.2	84	59	46	68	52	15
LD20-103	14.2	18	100	3.9	67	53	24	64	49	21
LD20-104	12.0	17	100	3.9	53	46	15	66	43	33
LD20-105	12.9	18	100	4.1	78	55	24	65	52	9
LD20-106	46.3	26	100	3.7	100	64	72	72	44	12
LD20-107	53.6	24	100	3.6	96	64	72	72	44	12
LD20-108	19.5	19	100	3.8	74	53	41	69	43	14
LD20-109	15.3	20	100	3.7	75	53	30	62	49	8
LD20-110	14.6	19	100	3.8	84	53	37	64	47	12
LD20-111	22.8	21	100	3.8	90	57	46	71	45	9
LD20-112	9.2	20	100	3.8	70	51	19	66	47	11
LD20-115	6.9	17	100	4.2	59	54	7	66	54	13
LD20-116	7.2	20	100	4.0	65	56	8	63	55	18
LD20-117	3.6	22	100	3.7	59	51	5	67	50	4
LD21-001	17.7	17	100	4.0	100	56	35	70	49	9
LD21-002	23.7	18	100	3.9	72	56	37	63	52	22
LD21-003	19.4	21	100	3.7	62	52	35	68	43	22
LD21-004	24.9	18	100	4.0	83	56	53	66	45	7
LD21-005	37.5	19	100	3.8	95	59	60	68	45	20
LD21-007	22.2	23	100	3.5	96	66	48	81	52	3
LD21-008	44.2	19	100	3.8	95	60	59	67	48	10
LD21-009	24.6	17	100	4.0	71	56	39	61	52	16

Table 2: Primary Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-010	33.1	18	100	3.9	94	57	58	65	47	16
LD21-011	14.2	22	100	3.6	45	46	14	71	42	31
LD21-012	37.7	17	100	4.0	94	59	60	68	46	6
LD21-013	8.3	18	100	3.9	72	54	19	66	50	14
LD21-014	17.8	16	100	4.1	94	56	47	62	51	11
LD21-015	10.6	17	100	4.1	71	51	39	60	45	6
LD21-016	13.2	17	100	4.0	71	52	38	61	47	6
LD21-017	10.3	23	100	3.6	70	53	25	62	49	12
LD21-018	21.6	20	100	3.9	70	54	35	60	50	11
LD21-019	5.1	20	100	3.8	70	53	10	64	51	11
LD21-020	5.3	14	100	4.1	64	56	8	77	54	5
LD21-021	10.8	22	100	3.6	59	51	16	63	49	15
LD21-022	27.7	21	100	3.8	90	56	55	69	45	10
LD21-023	52.5	19	100	3.8	89	63	67	70	46	11
LD21-024	36.6	18	100	3.9	94	61	61	66	51	11
LD21-025	40.0	19	100	3.8	100	62	63	74	45	13
LD21-026	16.8	10	100	2.8	80	60	37	75	52	30
LD21-027	50.8	22	100	3.7	86	60	62	73	49	14
LD21-028	16.2	20	100	3.8	90	55	36	64	50	7
LD21-029	38.3	24	100	3.6	79	62	43	77	51	12
LD21-030	33.0	23	100	3.6	74	60	30	74	54	13
LD21-032	42.4	18	100	3.9	94	62	60	80	34	15
LD21-033	29.8	22	100	3.6	73	61	34	74	55	8
LD21-034	18.2	22	100	3.6	50	50	18	67	46	28
LD21-036	8.0	8	100	5.2	50	42	13	53	40	0
LD21-040	10.7	22	100	3.6	41	45	14	76	41	28
LD21-042	38.1	10	100	3.0	90	61	76	67	42	12
LD21-043	34.8	19	100	3.9	79	52	52	59	46	26
LD21-044	48.1	19	100	3.9	84	56	76	60	44	32

Table 2: Primary Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-045	30.3	18	100	4.0	78	54	60	63	41	22
LD21-046	28.5	20	100	3.9	80	51	42	64	42	8
LD21-047	21.5	25	100	3.7	80	51	26	66	47	5
LD21-048	35.5	22	100	3.7	91	58	63	67	44	16
LD21-049	13.0	22	100	3.6	27	40	14	77	34	28
LD21-050	17.9	19	100	3.8	63	52	30	61	48	13
LD21-052	22.3	18	100	4.0	78	56	38	62	51	12
LD21-053	18.8	10	100	2.9	90	64	40	68	60	12
LD21-054	11.1	26	100	3.4	38	45	17	58	42	25
LD21-055	24.0	20	100	4.1	75	51	49	74	36	21
LD21-056	10.1	22	100	3.8	36	42	8	77	40	29
LD21-057	39.7	20	100	3.9	80	56	56	63	46	18
LD21-058	42.8	21	100	3.8	76	55	60	63	45	25
LD21-059	26.6	20	100	3.9	75	55	58	65	41	18
LD21-060	34.9	20	100	3.9	85	58	60	64	48	12
LD21-061	40.8	20	100	3.9	70	54	37	63	49	17
LD21-062	13.3	21	100	3.8	67	51	26	64	46	9
LD21-063	24.3	18	100	3.9	78	53	40	63	46	19
LD21-064	15.5	19	100	3.8	68	53	30	61	50	24
LD21-065	18.9	18	100	3.9	89	56	42	66	49	16
LD21-066	27.2	21	100	3.6	76	58	40	66	54	12
LD21-067	13.0	17	100	4.0	76	51	35	68	41	21
LD21-068	8.1	17	100	4.9	82	59	24	66	56	4
LD21-069	11.6	18	100	4.0	78	52	30	63	47	6
LD21-070	7.0	19	100	3.9	79	53	18	67	50	17
LD21-071	39.5	23	100	3.7	87	58	60	63	50	15
LD21-072	33.7	22	100	3.7	68	55	39	65	47	16
LD21-073	17.0	10	100	2.8	90	57	35	72	49	20
LD21-074	11.3	19	100	3.9	68	52	23	64	48	8

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Table 2: Primary Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-075	15.3	20	100	3.8	75	52	37	65	44	24
LD21-076	20.4	20	100	3.7	95	57	41	61	54	7
LD21-077	5.5	20	100	3.9	75	52	20	60	50	8
LD21-078	5.5	18	100	3.9	72	53	17	59	51	8
LD21-079	16.9	18	100	3.9	83	57	30	66	53	3
LD21-080	9.4	19	100	3.9	84	54	27	62	51	16
LD21-081	9.6	19	100	3.8	79	55	24	61	54	10
LD21-082	21.0	18	100	3.9	89	56	37	63	52	12
LD21-083	11.9	17	100	4.0	82	53	31	69	45	20
LD21-084	16.0	18	100	3.9	83	52	35	63	46	10
LD21-086	6.1	20	100	3.7	65	54	13	67	51	18
LD21-087	4.9	19	100	3.8	58	51	11	63	49	31
LD21-088	23.3	14	100	4.3	71	55	28	64	52	13
LD21-089	6.7	17	100	4.0	76	52	19	64	49	2
LD21-090	3.5	19	100	3.8	58	49	8	69	47	13
LD21-091	14.1	18	100	3.9	72	51	33	65	46	20
LD21-092	39.1	20	100	3.7	80	59	62	66	48	10
LD21-094	5.3	20	100	3.8	65	51	11	62	50	12
LD21-095	7.6	16	100	4.2	69	50	14	62	48	17
LD21-096	9.9	17	100	4.0	76	53	21	59	51	16
LD21-097	5.5	18	100	3.9	61	54	15	67	52	8
LD21-098	7.5	18	100	3.9	50	50	14	66	48	28
LD21-099	46.8	27	100	3.7	96	62	74	69	44	15
LD21-100	31.0	20	100	3.7	80	57	41	65	51	19
LD21-101	46.8	21	100	3.8	90	60	70	67	43	16
LD21-102	37.6	22	100	3.9	86	59	51	68	50	19
LD21-103	11.8	20	100	3.8	70	53	25	66	49	22
LD21-104	8.5	17	100	3.9	35	40	12	67	37	47
LD21-105	12.2	18	100	4.1	78	55	24	63	52	9

Table 2: Primary Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-106	43.4	27	100	3.7	100	63	68	73	45	13
LD21-107	47.4	23	100	3.6	96	65	68	72	47	14
LD21-108	19.3	19	100	3.8	74	53	38	67	44	15
LD21-110	15.7	19	100	4.0	95	56	46	68	46	11
LD21-111	16.4	19	100	4.0	74	52	33	65	47	10
LD21-112	27.8	20	100	3.7	75	58	48	67	49	18
LD21-113	6.8	19	100	4.0	63	49	13	59	47	3
LD21-114	7.6	19	100	4.4	63	53	7	61	52	9
LD21-115	6.3	17	100	4.2	53	50	6	62	49	13
LD21-117	3.5	10	100	2.8	70	58	5	65	57	4
SD20-001	24.6	17	100	4.0	94	56	41	66	48	10
SD20-002	14.1	20	100	3.9	60	50	32	67	46	23
SD20-003	42.2	18	100	3.9	94	64	61	77	45	7
SD20-004	46.5	18	100	4.1	94	59	65	68	49	12
SD20-005	34.8	17	100	4.0	82	56	49	64	49	21
SD20-006	14.5	17	100	4.0	82	55	45	64	47	10
SD20-007	33.6	20	100	3.8	95	57	62	64	48	7
SD20-008	12.6	21	100	3.7	62	51	27	64	44	20
SD20-009	12.0	18	100	3.9	72	54	20	62	53	13
SD20-010	20.1	19	100	3.9	89	57	47	65	49	14
SD20-011	27.5	18	100	3.9	89	60	52	69	48	14
SD20-012	18.8	21	100	3.7	67	54	41	62	47	5
SD20-013	25.1	25	100	3.9	72	52	32	64	47	4
SD20-014	32.1	22	100	3.6	82	61	44	73	52	8
SD20-015	18.1	22	100	3.5	64	55	23	64	53	12
SD20-016	12.9	22	100	3.6	41	45	15	75	40	24
SD20-017	8.8	22	100	3.6	55	49	15	63	47	21
SD20-018	24.4	20	100	3.8	90	63	46	74	53	11
SD20-019	33.6	18	100	4.0	78	53	56	59	45	16

Table 2: Primary Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD20-020	35.4	24	100	3.6	71	61	42	74	52	13
SD20-021	41.2	21	100	3.8	76	57	73	61	46	16
SD20-022	30.0	21	100	3.9	76	59	41	66	55	0
SD20-023	11.1	23	100	3.9	48	48	13	58	47	6
SD20-024	22.0	18	100	3.9	83	55	43	63	49	18
SD20-025	23.4	18	100	4.0	67	53	44	62	46	20
SD20-026	12.6	17	100	4.0	82	55	29	63	51	5
SD20-027	24.0	21	100	3.8	76	54	45	62	48	5
SD20-028	43.9	20	100	3.9	70	55	50	64	46	17
SD20-029	10.5	18	100	3.9	78	56	28	63	53	10
SD20-030	14.7	18	100	3.9	78	51	38	60	47	22
SD20-031	22.0	19	100	3.8	79	54	49	64	45	24
SD20-032	23.9	21	100	3.7	62	51	35	65	44	25
SD20-033	14.4	19	100	3.8	95	55	35	63	52	8
SD20-034	10.1	19	100	4.0	74	51	24	60	48	10
SD20-035	12.2	19	100	3.9	84	55	32	62	51	6
SD20-036	17.9	18	100	3.9	83	53	37	65	46	17
SD20-037	13.8	16	100	4.2	56	46	18	62	43	29
SD20-038	42.8	25	100	3.7	92	62	63	69	50	17
SD20-039	21.3	20	100	3.8	80	55	40	66	48	15
SD20-040	38.7	24	100	3.8	88	62	65	69	47	16
SD20-041	29.1	23	100	3.6	83	60	50	69	51	17
SD20-042	7.9	17	100	4.0	82	52	18	60	51	2
SD20-043	17.4	19	100	3.8	79	54	36	65	47	8
SD20-044	13.1	18	100	3.9	72	54	35	66	48	10
SD20-045	3.3	1	100	2.0	0	38	6	72	33	44
SD20-046	5.5	20	100	3.7	65	54	12	63	52	7
SD20-047	5.1	18	100	3.9	39	45	9	65	42	23
SD20-049	6.4	19	100	4.2	68	56	6	63	55	11

Table 2: Primary Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD21-001	28.8	17	100	4.0	88	57	46	67	47	7
SD21-002	29.3	17	100	4.0	94	60	48	70	49	9
SD21-003	25.9	21	100	4.0	90	57	46	70	46	10
SD21-004	34.1	17	100	4.0	88	59	59	66	48	12
SD21-005	39.3	17	100	4.0	94	59	56	65	50	12
SD21-006	13.8	18	100	4.1	83	55	44	63	48	9
SD21-007	11.5	17	100	4.1	71	54	19	62	53	14
SD21-008	13.9	20	100	3.8	65	51	25	64	46	15
SD21-009	23.1	17	100	4.0	94	56	50	66	46	5
SD21-010	15.9	20	100	3.8	80	54	35	65	48	13
SD21-011	35.7	19	100	4.0	84	61	59	74	45	12
SD21-012	19.6	20	100	3.8	65	53	42	62	46	18
SD21-013	20.5	18	100	3.9	78	60	37	66	56	0
SD21-014	41.5	22	100	3.6	86	62	61	75	43	21
SD21-015	13.9	22	100	3.6	36	43	12	72	39	32
SD21-016	8.1	22	100	3.6	45	45	11	76	42	21
SD21-017	10.1	22	100	3.6	64	54	20	62	52	6
SD21-018	21.5	22	100	3.5	64	56	27	64	53	12
SD21-019	45.0	19	100	3.9	74	54	69	58	45	17
SD21-020	26.2	21	100	3.8	67	55	33	76	47	14
SD21-021	18.3	18	100	3.9	61	50	41	59	44	5
SD21-022	33.2	23	100	3.6	74	60	37	73	52	14
SD21-023	16.0	24	100	3.6	58	51	21	60	50	18
SD21-024	28.4	23	100	3.8	78	53	42	69	44	6
SD21-025	17.1	19	100	3.8	84	56	34	62	53	15
SD21-026	16.8	18	100	3.9	78	54	39	62	50	25
SD21-027	26.2	21	100	3.9	67	53	36	62	47	12
SD21-028	49.5	20	100	3.9	85	57	65	63	46	17
SD21-029	17.3	17	100	4.0	76	50	39	67	41	21

Table 2: Primary Elections *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD21-030	8.8	18	100	3.9	83	56	24	62	54	10
SD21-031	11.5	19	100	3.9	68	49	30	64	42	23
SD21-032	33.8	22	100	3.7	68	54	46	63	45	24
SD21-033	14.4	20	100	3.8	95	56	34	62	53	7
SD21-034	18.9	20	100	3.7	85	55	38	63	50	4
SD21-035	11.1	18	100	4.0	83	54	30	62	50	7
SD21-036	4.2	18	100	3.9	56	48	10	65	46	14
SD21-037	10.7	17	100	4.0	71	52	23	62	49	11
SD21-038	33.4	23	100	3.6	91	61	55	71	49	15
SD21-039	39.0	24	100	3.5	92	63	65	70	47	14
SD21-040	47.5	24	100	3.8	100	64	71	70	49	16
SD21-041	10.0	17	100	3.9	65	51	20	66	47	20
SD21-042	20.3	18	100	4.1	72	56	26	64	53	10
SD21-043	17.9	19	100	3.8	79	54	37	65	47	9
SD21-044	12.7	19	100	4.0	74	53	35	67	45	11
SD21-045	7.1	17	100	4.0	82	55	18	61	53	1
SD21-046	4.6	17	100	4.0	59	52	7	72	50	7
SD21-048	5.2	20	100	3.9	55	47	9	60	45	3
SD21-049	6.9	19	100	4.2	68	56	7	62	55	11

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Table 3: General Elections (contests with Black candidate)

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
CD20-001	41.9	4	100	2.0	100	54	38	100	21	37
CD20-002	18.2	6	100	2.0	17	47	14	99	38	19
CD20-003	18.7	5	100	2.0	0	36	18	98	22	37
CD20-004	24.4	3	100	2.0	100	68	21	93	39	21
CD20-005	10.7	3	100	2.0	0	33	10	100	24	34
CD20-006	32.0	3	100	2.0	100	60	30	100	41	15
CD20-007	15.4	3	100	2.0	0	41	13	91	32	30
CD20-008	25.9	4	100	2.0	0	48	30	100	26	32
CD20-009	17.4	4	100	2.0	0	43	16	100	31	28
CD20-010	10.1	3	100	2.0	0	31	11	100	25	33
CD20-012	34.1	7	100	1.7	100	76	39	99	62	7
CD20-013	13.9	3	100	2.0	0	32	12	100	22	36
CD21-001	22.4	5	100	2.0	0	38	19	98	22	37
CD21-002	39.1	3	100	2.0	100	53	34	100	23	35
CD21-003	15.7	3	100	2.0	0	42	14	93	32	29
CD21-004	27.5	3	100	2.0	0	48	34	100	26	32
CD21-005	23.2	6	100	2.0	33	47	18	99	36	22
CD21-006	20.4	3	100	2.0	100	65	17	100	40	17
CD21-007	15.3	3	100	2.0	0	38	12	100	27	32
CD21-008	16.5	4	100	2.0	0	40	14	100	28	30
CD21-009	36.3	7	100	1.7	100	79	43	99	64	3
CD21-010	16.2	3	100	2.0	0	34	11	100	23	35
CD21-011	19.2	3	100	2.0	0	34	15	100	25	33
CD21-012	17.1	3	100	2.0	0	42	18	100	32	26
CD21-013	14.8	3	100	2.0	0	37	14	100	27	32
LD20-001	36.6	4	100	2.0	0	47	28	100	18	39
LD20-002	25.7	5	100	2.0	0	43	25	100	24	34
LD20-003	19.2	7	100	2.0	0	39	19	100	25	33
LD20-004	20.6	4	100	2.0	0	36	15	100	16	41

Table 3: General Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-005	41.0	3	100	2.0	100	55	33	100	18	39
LD20-006	7.1	5	100	2.0	0	34	7	84	25	49
LD20-007	22.4	4	100	2.0	0	43	23	100	26	32
LD20-008	42.5	6	100	2.0	33	51	33	100	26	32
LD20-009	27.9	4	100	2.0	0	43	21	100	27	31
LD20-010	22.0	5	100	2.0	0	35	23	100	15	41
LD20-011	15.4	6	100	2.0	83	54	13	100	48	6
LD20-012	36.9	7	100	2.0	14	47	38	100	15	41
LD20-013	7.9	2	100	2.0	0	27	9	94	18	42
LD20-014	17.8	5	100	2.0	0	40	20	100	25	33
LD20-015	10.7	5	100	2.0	0	31	12	100	22	36
LD20-016	18.3	5	100	2.0	0	36	17	95	24	37
LD20-017	10.1	11	100	2.0	0	37	11	90	30	34
LD20-018	21.1	3	100	2.0	100	62	21	100	51	5
LD20-019	6.3	1	100	2.0	0	37	6	100	33	25
LD20-021	37.4	5	100	2.0	20	44	29	100	21	37
LD20-022	29.3	4	100	2.0	0	43	28	100	18	39
LD20-023	50.6	6	100	2.0	100	60	38	100	16	41
LD20-024	38.2	8	100	2.0	100	56	37	100	28	29
LD20-025	42.6	4	100	2.0	0	40	34	99	14	42
LD20-026	16.5	5	100	2.0	0	31	11	100	22	36
LD20-027	51.6	6	100	2.0	100	63	44	100	20	37
LD20-028	15.8	5	100	2.0	0	27	10	100	19	38
LD20-029	37.2	10	100	1.6	100	87	40	100	78	0
LD20-030	28.2	4	100	2.0	100	59	25	100	45	11
LD20-031	39.8	8	100	1.6	100	84	48	100	71	0
LD20-032	48.1	10	100	2.0	100	63	50	100	28	31
LD20-033	39.9	6	100	2.0	100	61	38	99	38	19

Table 3: General Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-034	11.5	6	100	2.0	0	40	6	100	36	22
LD20-035	18.0	6	67	2.0	33	46	12	64	44	39
LD20-036	7.5	3	33	2.0	67	56	6	59	56	15
LD20-037	11.3	6	100	2.0	0	34	10	100	27	31
LD20-038	39.4	10	100	1.6	100	83	42	98	72	2
LD20-040	11.3	6	100	2.0	0	38	7	100	33	25
LD20-041	7.1	3	100	2.0	0	43	6	94	40	16
LD20-042	38.1	6	100	2.0	100	66	48	100	36	22
LD20-043	33.9	6	100	2.0	0	47	29	100	26	32
LD20-044	48.1	5	100	2.0	100	71	52	100	40	16
LD20-045	31.4	7	100	2.0	57	50	32	100	27	32
LD20-046	25.0	5	100	2.0	20	42	27	99	21	37
LD20-047	23.8	6	100	2.0	17	43	24	98	26	32
LD20-048	35.5	6	100	2.0	100	56	40	100	29	30
LD20-049	12.3	6	100	2.0	50	49	7	100	45	10
LD20-050	17.5	3	100	2.0	0	41	24	92	25	37
LD20-052	11.0	4	100	2.0	0	26	10	100	18	38
LD20-054	12.9	8	50	2.0	0	43	9	91	38	22
LD20-055	26.2	5	100	2.0	0	42	25	100	22	36
LD20-056	10.2	7	100	2.0	100	71	10	100	66	0
LD20-057	39.7	5	100	2.0	100	58	38	98	33	25
LD20-058	43.1	8	100	2.0	100	69	45	96	47	8
LD20-059	28.6	5	100	2.0	0	37	24	100	17	40
LD20-060	34.6	8	100	2.0	88	59	38	100	34	24
LD20-061	40.0	8	100	2.0	100	64	31	100	48	8
LD20-062	13.7	5	100	2.0	0	32	11	100	24	34
LD20-063	24.8	4	100	2.0	0	48	24	100	32	27
LD20-064	15.1	4	100	2.0	0	39	14	100	29	30

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Table 3: General Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-065	19.6	5	100	2.0	0	33	19	94	19	43
LD20-066	24.0	4	100	2.0	0	42	21	100	22	36
LD20-067	7.9	7	100	2.0	0	21	6	100	16	40
LD20-068	8.4	5	100	2.0	0	36	7	100	31	27
LD20-069	11.6	5	100	2.0	0	34	11	100	26	32
LD20-070	7.2	4	100	2.0	0	24	6	100	19	38
LD20-071	40.3	7	100	1.9	100	76	46	99	56	4
LD20-072	34.4	8	100	2.0	100	71	34	100	56	1
LD20-073	14.6	3	100	2.0	0	35	19	100	28	31
LD20-074	11.4	6	100	2.0	0	45	11	100	38	19
LD20-075	15.3	5	100	2.0	0	38	15	100	27	32
LD20-076	21.6	7	100	2.0	0	41	20	100	26	32
LD20-077	7.3	4	100	2.0	0	26	7	100	19	38
LD20-079	22.3	7	100	2.6	14	34	16	98	15	41
LD20-080	9.5	7	100	2.0	0	23	8	100	16	40
LD20-081	9.6	5	100	2.0	0	26	8	100	19	38
LD20-082	20.2	1	100	2.0	0	40	18	100	27	32
LD20-083	19.5	5	100	2.0	60	48	12	100	24	34
LD20-084	14.1	6	100	2.0	0	31	13	100	21	37
LD20-086	6.0	4	100	2.0	0	32	6	100	28	31
LD20-088	16.0	4	100	2.0	100	56	18	99	47	6
LD20-089	7.9	4	100	2.0	0	27	7	100	22	36
LD20-091	4.8	2	100	2.0	0	23	6	100	16	40
LD20-092	40.2	9	100	1.7	100	80	47	100	63	9
LD20-095	9.6	6	100	2.0	0	32	8	100	26	32
LD20-096	8.9	4	100	2.0	0	35	7	100	30	30
LD20-098	9.2	6	100	2.0	0	41	8	100	36	22
LD20-099	36.0	6	100	2.0	100	63	42	99	38	20

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Table 3: General Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-100	30.5	8	100	1.6	100	82	36	100	71	0
LD20-101	48.0	10	100	1.7	100	82	55	99	60	12
LD20-102	33.8	9	100	1.6	100	87	40	98	79	0
LD20-103	14.2	4	100	2.0	0	47	14	100	38	19
LD20-104	12.0	6	100	2.0	0	47	10	100	41	16
LD20-105	12.9	6	100	2.0	50	49	13	100	41	14
LD20-106	46.3	15	100	1.5	100	91	60	99	79	2
LD20-107	53.6	10	100	1.6	100	87	58	99	70	4
LD20-108	19.5	8	100	2.0	0	38	17	100	25	33
LD20-109	15.3	8	100	2.0	0	35	12	100	27	32
LD20-110	14.6	3	100	2.0	0	28	13	100	17	39
LD20-111	22.8	6	100	2.0	0	38	22	100	20	37
LD20-112	9.2	4	100	2.0	0	28	8	100	22	36
LD20-115	6.9	1	100	2.0	100	59	6	100	44	11
LD20-116	7.2	1	100	2.0	0	49	7	100	46	7
LD21-001	17.7	5	100	2.0	0	35	15	91	22	42
LD21-002	23.7	5	100	2.0	20	43	23	99	26	32
LD21-003	19.4	6	100	2.0	0	38	18	100	25	34
LD21-004	24.9	3	100	2.0	0	33	19	100	17	40
LD21-005	37.5	3	100	2.0	67	51	30	100	17	40
LD21-007	22.2	4	100	2.0	0	43	22	100	27	32
LD21-008	44.2	6	100	2.0	83	54	36	100	28	30
LD21-009	24.6	5	100	2.0	0	37	19	98	23	37
LD21-010	33.1	5	100	2.0	0	38	26	100	17	40
LD21-011	14.2	6	100	2.0	83	52	11	100	46	8
LD21-012	37.7	5	100	2.0	0	45	34	100	16	41
LD21-013	8.3	6	100	2.0	0	28	7	97	22	37
LD21-014	17.8	5	100	2.0	0	40	20	100	25	33

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Table 3: General Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-015	10.6	5	100	2.0	0	32	13	100	22	36
LD21-016	13.2	5	100	2.0	0	34	14	95	23	38
LD21-017	10.3	11	100	2.0	0	37	11	90	31	32
LD21-018	21.6	3	100	2.0	100	62	21	100	52	4
LD21-019	5.1	1	100	2.0	0	34	5	100	31	28
LD21-021	10.8	6	100	2.0	0	35	7	87	31	37
LD21-022	27.7	4	100	2.0	0	39	26	100	17	40
LD21-023	52.5	6	100	2.0	100	61	39	100	15	41
LD21-024	36.6	8	100	2.0	100	55	37	100	28	29
LD21-025	40.0	5	100	2.0	20	42	30	99	14	42
LD21-027	50.8	8	100	2.0	100	64	48	100	26	32
LD21-028	16.2	5	100	2.0	0	26	10	100	17	40
LD21-029	38.3	8	100	1.6	100	85	44	100	74	0
LD21-030	33.0	7	100	1.6	100	87	34	100	80	0
LD21-031	38.1	3	100	1.0	100	100	44	.	.	.
LD21-032	42.4	4	100	2.0	100	57	43	100	26	32
LD21-033	29.8	10	100	1.6	100	83	31	99	76	0
LD21-034	18.2	6	100	2.0	33	48	13	100	41	15
LD21-036	8.0	2	100	2.0	0	36	7	100	30	28
LD21-038	43.6	2	100	1.0	100	100	47	.	.	.
LD21-040	10.7	4	100	2.0	0	39	6	100	35	23
LD21-042	38.1	6	100	2.0	100	66	48	100	36	22
LD21-043	34.8	6	100	2.0	17	49	30	100	27	31
LD21-044	48.1	5	100	2.0	100	71	52	100	40	16
LD21-045	30.3	7	100	2.0	29	49	31	100	26	33
LD21-046	28.5	4	100	2.0	0	40	28	100	17	39
LD21-047	21.5	6	100	2.0	17	46	23	97	30	28
LD21-048	35.5	6	100	2.0	100	56	40	100	29	30

Table 3: General Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-049	13.0	6	100	2.0	33	47	8	100	42	13
LD21-050	17.9	3	100	2.0	0	42	26	93	25	37
LD21-052	22.3	4	100	2.0	0	44	22	100	21	36
LD21-054	11.1	8	50	2.0	0	45	10	84	40	22
LD21-055	24.0	5	100	2.0	0	41	22	100	23	35
LD21-056	10.1	7	100	2.0	100	71	10	100	66	0
LD21-057	39.7	5	100	2.0	100	58	38	98	33	25
LD21-058	42.8	8	100	2.0	100	68	44	98	45	11
LD21-059	26.6	5	100	2.0	0	35	22	100	17	40
LD21-060	34.9	8	100	2.0	100	59	38	100	34	23
LD21-061	40.8	8	100	2.0	100	64	32	100	48	8
LD21-062	13.3	5	100	2.0	0	31	10	100	23	34
LD21-063	24.3	4	100	2.0	0	47	22	100	32	26
LD21-064	15.5	4	100	2.0	0	39	14	100	29	30
LD21-065	18.9	5	100	2.0	0	33	19	94	19	43
LD21-066	27.2	6	100	2.0	50	51	23	100	36	22
LD21-067	13.0	5	100	2.0	0	29	13	100	19	38
LD21-068	8.1	5	100	2.0	0	36	7	100	31	27
LD21-069	11.6	4	100	2.0	0	34	10	100	26	32
LD21-070	7.0	4	100	2.0	0	23	6	100	18	39
LD21-071	39.5	6	100	2.0	100	71	46	98	49	4
LD21-072	33.7	7	100	2.0	100	68	32	100	53	2
LD21-073	17.0	2	100	2.0	0	36	13	100	22	36
LD21-074	11.3	6	100	2.0	0	43	11	100	36	22
LD21-075	15.3	5	100	2.0	0	38	15	100	27	32
LD21-076	20.4	7	100	2.0	0	40	20	100	26	33
LD21-077	5.5	3	100	2.0	0	24	6	100	18	39
LD21-079	16.9	5	100	2.0	0	36	12	92	23	40

Table 3: General Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-080	9.4	7	100	2.0	0	24	9	100	17	40
LD21-081	9.6	5	100	2.0	0	26	9	100	19	38
LD21-082	21.0	5	100	2.0	0	34	15	100	23	35
LD21-083	11.9	3	100	2.0	0	27	7	100	21	37
LD21-084	16.0	6	100	2.0	0	33	15	100	22	36
LD21-086	6.1	4	100	2.0	0	31	6	100	27	32
LD21-088	23.3	5	100	1.8	100	67	23	100	57	6
LD21-089	6.7	4	100	2.0	0	25	6	100	20	38
LD21-091	14.1	3	100	2.0	0	36	19	100	30	28
LD21-092	39.1	9	100	1.7	100	79	44	100	62	12
LD21-095	7.6	6	100	2.0	0	31	5	100	27	32
LD21-096	9.9	4	100	2.0	0	36	9	100	30	30
LD21-098	7.5	6	100	2.0	0	39	7	100	35	23
LD21-099	46.8	13	100	1.7	100	85	58	99	65	3
LD21-100	31.0	8	100	1.6	100	82	36	99	71	0
LD21-101	46.8	9	100	1.7	100	81	52	99	62	13
LD21-102	37.6	9	100	1.6	100	89	45	98	81	0
LD21-103	11.8	4	100	2.0	0	42	12	100	34	24
LD21-104	8.5	6	100	2.0	0	45	7	100	41	16
LD21-105	12.2	7	100	2.0	43	48	13	100	41	15
LD21-106	43.4	11	100	1.6	100	86	55	99	71	2
LD21-107	47.4	8	100	1.6	100	82	50	99	65	10
LD21-108	19.3	8	100	2.0	0	37	16	100	25	34
LD21-109	16.8	4	100	2.0	0	39	14	100	28	30
LD21-110	15.7	3	100	2.0	0	33	18	100	18	39
LD21-111	16.4	3	100	2.0	0	30	13	100	19	38
LD21-112	27.8	7	100	1.7	100	78	38	99	65	2
LD21-113	6.8	3	100	2.0	0	32	6	97	25	34

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Table 3: General Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-114	7.6	1	100	2.0	100	60	7	100	58	0
LD21-115	6.3	1	100	2.0	0	46	5	100	43	12
SD20-001	24.6	4	100	2.0	0	42	18	98	21	38
SD20-002	14.1	6	100	2.0	0	33	15	99	23	35
SD20-003	42.2	5	100	2.0	100	53	42	100	21	37
SD20-004	46.5	6	100	2.0	100	59	40	100	22	36
SD20-005	34.8	4	100	2.0	100	54	29	100	25	33
SD20-006	14.5	6	100	2.0	0	34	16	100	20	38
SD20-007	33.6	3	100	2.0	0	46	35	100	18	39
SD20-008	12.6	3	100	2.0	0	37	10	86	31	35
SD20-009	12.0	3	100	2.0	67	55	10	100	49	6
SD20-010	20.1	5	100	2.0	0	37	20	100	16	40
SD20-011	27.5	4	100	2.0	0	48	23	100	20	38
SD20-012	18.8	3	100	2.0	0	40	15	100	22	36
SD20-013	25.1	4	100	2.0	25	43	26	100	22	35
SD20-014	32.1	7	100	1.9	100	67	32	99	53	10
SD20-015	18.1	6	100	2.0	17	43	12	100	34	23
SD20-016	12.9	6	100	2.0	33	47	9	100	42	13
SD20-017	8.8	6	100	2.0	0	37	7	88	33	32
SD20-018	24.4	3	100	2.0	0	43	21	100	27	32
SD20-019	33.6	5	100	2.0	100	51	31	100	29	30
SD20-020	35.4	8	100	1.6	100	83	40	100	72	0
SD20-021	41.2	4	100	2.0	100	67	49	100	35	23
SD20-022	30.0	3	100	2.0	33	47	27	100	27	32
SD20-023	11.1	7	57	2.0	57	54	10	79	49	13
SD20-024	22.0	3	100	2.0	0	44	19	100	31	27
SD20-025	23.4	4	100	2.0	0	43	26	100	21	37
SD20-026	12.6	4	100	2.0	0	24	7	100	18	39

Table 3: General Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD20-027	24.0	5	100	2.0	0	41	21	100	25	33
SD20-028	43.9	7	100	2.0	100	67	41	99	45	11
SD20-029	10.5	5	100	2.0	0	27	9	100	18	39
SD20-030	14.7	3	100	2.0	0	32	18	100	19	38
SD20-031	22.0	3	100	2.0	0	45	23	100	29	30
SD20-032	23.9	6	100	2.0	100	57	23	100	44	10
SD20-033	14.4	4	100	2.0	0	30	12	100	20	38
SD20-034	10.1	5	100	2.0	0	30	10	100	23	35
SD20-035	12.2	4	100	2.0	0	36	11	100	28	31
SD20-036	17.9	5	100	2.0	0	40	12	100	23	35
SD20-037	13.8	4	100	2.0	50	49	12	100	42	14
SD20-038	42.8	10	100	1.6	100	87	53	99	73	0
SD20-039	21.3	5	100	2.0	100	57	24	100	43	12
SD20-040	38.7	9	100	1.7	100	81	49	99	65	6
SD20-041	29.1	5	100	2.0	100	58	30	100	39	17
SD20-042	7.9	4	100	2.0	0	29	6	100	24	34
SD20-043	17.4	8	100	2.0	0	35	15	100	24	34
SD20-044	13.1	5	100	2.0	0	31	16	99	19	39
SD20-049	6.4	1	100	2.0	100	58	6	100	48	4
SD21-001	28.8	3	100	2.0	0	46	20	97	21	38
SD21-002	29.3	3	100	2.0	0	45	22	100	24	34
SD21-003	25.9	5	100	2.0	0	41	26	99	20	38
SD21-004	34.1	4	100	2.0	0	48	34	100	21	37
SD21-005	39.3	4	100	2.0	100	56	30	100	25	34
SD21-006	13.8	6	100	2.0	0	32	15	100	20	38
SD21-007	11.5	3	100	2.0	67	55	10	100	50	6
SD21-008	13.9	3	100	2.0	0	38	11	84	31	36
SD21-009	23.1	3	100	2.0	0	37	20	99	22	37

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Table 3: General Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD21-010	15.9	5	100	2.0	0	37	10	100	19	38
SD21-011	35.7	3	100	2.0	67	51	32	100	25	33
SD21-012	19.6	3	100	2.0	0	40	16	100	22	36
SD21-013	20.5	3	100	2.0	0	42	22	100	26	32
SD21-014	41.5	6	100	2.0	100	61	40	100	34	22
SD21-015	13.9	6	100	2.0	50	52	10	100	47	8
SD21-016	8.1	6	100	2.0	17	44	6	100	40	16
SD21-017	10.1	6	100	2.0	0	33	8	99	28	31
SD21-018	21.5	6	100	2.0	50	48	16	100	38	19
SD21-019	45.0	5	100	2.0	100	65	45	100	37	21
SD21-020	26.2	5	60	2.0	60	51	14	85	45	13
SD21-021	18.3	3	100	2.0	0	38	22	100	22	36
SD21-022	33.2	4	100	2.0	100	64	30	100	48	9
SD21-023	16.0	3	100	2.0	100	65	24	87	31	32
SD21-024	28.4	4	100	2.0	50	51	31	98	28	31
SD21-025	17.1	3	100	2.0	0	38	15	100	28	31
SD21-026	16.8	3	100	2.0	0	33	16	100	20	37
SD21-027	26.2	6	100	2.0	50	50	23	99	35	23
SD21-028	49.5	5	100	2.0	100	68	49	98	39	18
SD21-029	17.3	3	100	2.0	0	33	13	100	19	38
SD21-030	8.8	4	100	2.0	0	24	8	100	18	39
SD21-031	11.5	4	100	2.0	0	37	12	100	29	30
SD21-032	33.8	6	100	2.0	100	69	36	99	51	3
SD21-033	14.4	4	100	2.0	0	31	12	100	21	37
SD21-034	18.9	5	100	2.0	20	45	13	100	23	35
SD21-035	11.1	4	100	2.0	0	35	10	100	28	30
SD21-037	10.7	6	100	2.0	0	32	10	100	24	34
SD21-038	33.4	5	100	2.0	100	62	35	100	42	14

Table 3: General Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD21-039	39.0	8	100	1.6	100	82	48	100	66	9
SD21-040	47.5	10	100	1.6	100	89	60	97	76	0
SD21-041	10.0	5	100	2.0	0	44	9	100	38	19
SD21-042	20.3	4	100	2.0	100	59	20	100	49	3
SD21-043	17.9	8	100	2.0	0	36	15	100	24	34
SD21-044	12.7	5	100	2.0	0	31	15	99	19	39
SD21-045	7.1	4	100	2.0	0	30	7	100	25	33
SD21-049	6.9	1	100	2.0	100	59	6	100	50	0

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Table 4: Primary Elections (contests with Black candidate)

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
CD20-001	41.9	14	100	4.1	100	61	62	69	48	12
CD20-002	18.2	15	100	4.1	67	55	26	71	50	14
CD20-003	18.7	15	100	4.0	73	54	40	66	47	22
CD20-004	24.4	16	100	3.9	75	59	34	68	55	12
CD20-005	10.7	16	100	3.9	56	51	21	62	48	15
CD20-006	32.0	15	100	4.2	67	51	47	59	44	23
CD20-007	15.4	15	100	4.0	73	52	30	62	47	5
CD20-008	25.9	14	100	4.1	79	54	52	60	48	20
CD20-009	17.4	16	100	4.6	56	46	33	63	42	13
CD20-010	10.1	15	100	4.0	73	52	25	62	48	27
CD20-011	3.7	1	100	5.0	100	54	5	100	47	.
CD20-012	34.1	20	100	3.6	85	60	54	68	50	18
CD20-013	13.9	14	100	4.1	71	54	33	59	52	14
CD21-001	22.4	15	100	4.0	73	55	41	66	47	18
CD21-002	39.1	14	100	4.1	100	61	60	70	47	13
CD21-003	15.7	16	100	4.1	56	48	28	65	40	17
CD21-004	27.5	14	100	4.1	71	54	55	60	48	20
CD21-005	23.2	14	100	4.1	71	59	32	71	54	12
CD21-006	20.4	15	100	4.5	60	52	25	76	47	10
CD21-007	15.3	14	100	4.1	57	49	32	61	44	30
CD21-008	16.5	14	100	4.1	64	48	36	62	41	29
CD21-009	36.3	20	100	3.6	80	60	56	68	50	19
CD21-010	16.2	14	100	4.1	86	54	35	63	50	15
CD21-011	19.2	14	100	4.1	64	51	35	63	46	24
CD21-012	17.1	16	100	3.9	75	53	36	63	47	21
CD21-013	14.8	17	100	3.9	76	53	31	64	48	11
CD21-014	3.6	1	100	5.0	100	54	5	100	47	.
LD20-001	36.6	14	100	4.1	93	58	58	73	40	19
LD20-002	25.7	15	100	4.1	87	57	45	70	47	12

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Table 4: Primary Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-003	19.2	19	100	3.7	63	53	41	66	43	24
LD20-004	20.6	15	100	4.0	93	58	52	69	46	12
LD20-005	41.0	17	100	3.8	94	60	61	68	47	16
LD20-006	7.1	13	100	4.3	69	51	15	63	49	8
LD20-007	22.4	15	100	4.1	93	63	49	78	49	4
LD20-008	42.5	15	100	4.1	93	58	59	66	47	16
LD20-009	27.9	14	100	4.1	71	56	38	64	50	13
LD20-010	22.0	14	100	4.1	79	54	44	72	36	18
LD20-011	15.4	15	100	4.1	47	45	16	67	40	29
LD20-012	36.9	15	100	4.1	87	59	61	67	46	6
LD20-013	7.9	14	100	4.1	57	50	22	65	45	10
LD20-014	17.8	13	100	4.2	92	56	47	61	51	12
LD20-015	10.7	13	100	4.2	77	52	38	62	45	9
LD20-016	18.3	15	100	4.0	73	50	39	60	44	4
LD20-017	10.1	16	100	3.9	69	53	26	64	49	6
LD20-018	21.1	14	100	4.1	71	55	35	61	51	14
LD20-019	6.3	15	100	4.0	53	49	10	66	47	13
LD20-020	5.5	12	100	4.4	58	50	8	79	47	7
LD20-021	37.4	17	100	3.9	88	56	62	63	46	15
LD20-022	29.3	18	100	3.9	94	58	55	72	42	9
LD20-023	50.6	16	100	4.0	100	64	66	70	50	12
LD20-024	38.2	16	100	3.9	94	63	63	68	52	11
LD20-025	42.6	8	100	5.2	100	58	68	68	40	24
LD20-026	16.5	15	100	4.0	60	53	35	67	46	27
LD20-027	51.6	18	100	3.8	78	57	59	72	36	36
LD20-028	15.8	15	100	4.0	93	57	35	66	51	8
LD20-029	37.2	20	100	3.7	65	61	38	79	50	7
LD20-030	28.2	19	100	3.7	68	59	33	73	52	8

Table 4: Primary Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-031	39.8	20	100	3.7	95	64	58	74	49	7
LD20-032	48.1	16	100	3.9	100	68	66	78	52	6
LD20-033	39.9	16	100	4.0	88	65	58	75	52	0
LD20-034	11.5	15	100	4.1	33	42	12	71	38	39
LD20-035	18.0	15	100	4.0	67	57	31	68	52	13
LD20-036	7.5	16	100	4.0	50	49	13	62	47	18
LD20-037	11.3	16	100	4.0	62	52	24	62	50	6
LD20-038	39.4	15	100	4.0	73	61	53	69	54	21
LD20-040	11.3	14	100	4.1	43	46	17	69	41	31
LD20-041	7.1	15	100	4.1	40	44	11	70	41	28
LD20-042	38.1	9	100	2.8	89	60	76	66	44	12
LD20-043	33.9	16	100	4.0	75	51	51	58	44	30
LD20-044	48.1	16	100	4.0	81	56	76	60	44	36
LD20-045	31.4	17	100	3.9	71	54	60	62	42	29
LD20-046	25.0	15	100	4.1	93	52	41	60	47	13
LD20-047	23.8	18	100	4.1	67	47	24	66	41	10
LD20-048	35.5	18	100	3.8	94	58	63	67	43	18
LD20-049	12.3	15	100	4.1	33	41	10	68	38	38
LD20-050	17.5	16	100	3.9	56	50	28	60	47	16
LD20-052	11.0	15	100	4.1	67	55	26	62	52	10
LD20-054	12.9	14	100	4.1	57	52	18	62	50	0
LD20-055	26.2	17	100	4.2	71	49	51	72	34	24
LD20-056	10.2	14	100	4.5	43	45	8	76	42	21
LD20-057	39.7	16	100	4.1	75	54	56	62	43	24
LD20-058	43.1	17	100	4.0	71	54	60	61	43	32
LD20-059	28.6	17	100	4.1	71	53	60	62	39	24
LD20-060	34.6	16	100	4.1	81	56	60	63	44	16
LD20-061	40.0	16	100	4.1	62	52	35	62	46	23

Table 4: Primary Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-062	13.7	17	100	4.0	65	50	27	65	44	11
LD20-063	24.8	15	100	4.1	73	52	43	60	45	20
LD20-064	15.1	16	100	4.1	62	51	30	59	48	31
LD20-065	19.6	15	100	4.0	87	55	43	66	48	18
LD20-066	24.0	15	100	4.3	80	50	42	61	42	12
LD20-067	7.9	14	100	4.1	64	47	22	70	41	18
LD20-068	8.4	15	100	4.3	80	54	24	63	51	5
LD20-069	11.6	15	100	4.1	73	51	31	61	47	6
LD20-070	7.2	15	100	4.1	80	56	19	65	53	19
LD20-071	40.3	19	100	3.8	84	58	63	62	50	17
LD20-072	34.4	19	100	3.8	68	53	41	65	44	24
LD20-073	14.6	15	100	4.1	73	50	36	64	43	24
LD20-074	11.4	16	100	4.0	62	50	23	65	45	9
LD20-075	15.3	17	100	3.9	76	52	37	65	44	27
LD20-076	21.6	15	100	4.0	93	55	42	60	51	25
LD20-077	7.3	15	100	4.1	73	52	24	61	49	11
LD20-078	6.1	15	100	4.1	60	52	19	62	50	14
LD20-079	22.3	16	100	4.2	81	54	41	68	44	15
LD20-080	9.5	14	100	4.1	79	55	26	62	52	21
LD20-081	9.6	14	100	4.1	71	54	24	61	52	12
LD20-082	20.2	8	100	2.6	100	61	42	69	56	8
LD20-083	19.5	14	100	4.1	71	51	37	64	44	33
LD20-084	14.1	14	100	4.1	93	52	32	63	47	11
LD20-086	6.0	15	100	4.0	67	54	14	65	52	12
LD20-087	5.1	15	100	4.0	80	52	13	66	50	2
LD20-088	16.0	11	100	4.5	55	52	24	65	49	16
LD20-089	7.9	14	100	4.1	86	54	23	60	52	1
LD20-090	3.3	14	100	4.1	50	46	8	69	44	21

Table 4: Primary Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD20-091	4.8	16	100	3.9	56	52	13	64	50	33
LD20-092	40.2	18	100	3.7	78	60	65	65	49	14
LD20-094	5.7	19	100	3.9	47	45	12	57	43	15
LD20-095	9.6	14	100	4.1	64	51	22	61	49	13
LD20-096	8.9	14	100	4.1	64	48	17	57	47	18
LD20-097	5.5	14	100	4.1	57	54	14	65	51	11
LD20-098	9.2	14	100	4.2	50	51	18	62	49	29
LD20-099	36.0	20	100	3.6	85	61	65	69	46	17
LD20-100	30.5	17	100	3.8	76	56	42	65	49	21
LD20-101	48.0	18	100	3.7	89	61	72	67	44	21
LD20-102	33.8	16	100	4.3	81	58	47	66	51	18
LD20-103	14.2	14	100	4.2	57	49	24	63	44	30
LD20-104	12.0	12	100	4.4	50	44	16	61	42	37
LD20-105	12.9	15	100	4.2	73	54	24	64	50	10
LD20-106	46.3	23	100	3.7	100	64	73	71	45	13
LD20-107	53.6	21	100	3.7	95	64	72	71	44	14
LD20-108	19.5	16	100	3.9	69	52	41	67	42	16
LD20-109	15.3	17	100	3.8	71	52	30	62	48	9
LD20-110	14.6	15	100	4.0	87	53	37	64	47	14
LD20-111	22.8	16	100	4.1	94	54	46	67	42	13
LD20-112	9.2	14	100	4.1	79	50	19	64	48	10
LD20-115	6.9	12	100	4.5	58	57	7	68	56	20
LD20-116	7.2	12	100	4.8	58	55	8	67	54	16
LD20-117	3.6	17	100	3.8	59	52	5	68	51	5
LD21-001	17.7	14	100	4.1	100	55	35	69	47	11
LD21-002	23.7	15	100	4.0	67	55	37	62	51	25
LD21-003	19.4	18	100	3.8	61	51	35	68	41	25
LD21-004	24.9	15	100	4.1	87	56	54	65	45	9

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Table 4: Primary Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-005	37.5	16	100	3.9	94	59	60	67	46	22
LD21-007	22.2	15	100	4.1	93	63	48	78	49	4
LD21-008	44.2	15	100	4.1	93	58	59	66	46	13
LD21-009	24.6	14	100	4.1	64	55	38	61	52	19
LD21-010	33.1	14	100	4.1	100	58	58	64	49	12
LD21-011	14.2	15	100	4.1	40	44	15	67	40	39
LD21-012	37.7	14	100	4.1	100	59	60	68	46	7
LD21-013	8.3	15	100	4.1	67	53	19	64	49	16
LD21-014	17.8	13	100	4.2	92	56	47	61	51	12
LD21-015	10.6	14	100	4.3	71	50	40	60	44	7
LD21-016	13.2	14	100	4.1	64	51	38	59	46	7
LD21-017	10.3	17	100	3.9	65	51	26	62	47	7
LD21-018	21.6	15	100	4.1	67	52	35	60	48	14
LD21-019	5.1	15	100	4.0	60	50	10	64	48	15
LD21-020	5.3	11	100	4.4	64	52	8	80	50	7
LD21-021	10.8	15	100	4.1	60	50	16	63	47	22
LD21-022	27.7	17	100	3.9	94	57	54	70	46	12
LD21-023	52.5	15	100	4.0	100	65	67	71	50	13
LD21-024	36.6	15	100	4.0	93	61	61	67	50	13
LD21-025	40.0	15	100	4.0	100	63	62	77	43	17
LD21-026	16.8	9	100	2.6	78	61	37	75	54	30
LD21-027	50.8	18	100	3.9	89	60	62	75	49	17
LD21-028	16.2	15	100	4.0	93	57	35	67	51	8
LD21-029	38.3	20	100	3.7	80	63	44	78	51	7
LD21-030	33.0	19	100	3.7	74	61	30	74	55	8
LD21-032	42.4	14	100	4.1	93	61	61	78	35	12
LD21-033	29.8	15	100	4.1	73	62	34	75	57	0
LD21-034	18.2	15	100	4.1	53	49	18	69	45	29

Table 4: Primary Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-036	8.0	6	100	6.2	50	39	13	52	37	0
LD21-040	10.7	14	100	4.1	36	43	14	75	39	33
LD21-042	38.1	9	100	2.8	89	60	76	66	44	12
LD21-043	34.8	16	100	4.0	75	51	52	58	44	30
LD21-044	48.1	16	100	4.0	81	56	76	60	44	36
LD21-045	30.3	15	100	4.1	73	54	60	63	41	25
LD21-046	28.5	16	100	4.0	81	50	41	64	40	9
LD21-047	21.5	19	100	4.1	84	50	27	63	45	2
LD21-048	35.5	18	100	3.8	94	58	63	67	43	18
LD21-049	13.0	15	100	4.1	27	38	14	75	32	28
LD21-050	17.9	15	100	4.1	60	51	30	61	47	18
LD21-052	22.3	15	100	4.1	80	55	38	61	50	14
LD21-053	18.8	9	100	2.7	89	65	40	67	63	12
LD21-054	11.1	19	100	3.7	37	42	18	57	39	23
LD21-055	24.0	17	100	4.2	71	49	49	72	34	25
LD21-056	10.1	14	100	4.5	43	45	8	76	42	21
LD21-057	39.7	16	100	4.1	75	54	56	62	43	24
LD21-058	42.8	17	100	4.0	71	54	61	62	43	32
LD21-059	26.6	16	100	4.1	69	53	58	64	38	22
LD21-060	34.9	16	100	4.1	81	56	60	63	45	16
LD21-061	40.8	16	100	4.1	62	52	37	62	46	23
LD21-062	13.3	17	100	4.0	65	50	26	64	44	12
LD21-063	24.3	14	100	4.1	71	51	40	62	43	25
LD21-064	15.5	15	100	4.0	67	52	30	60	49	31
LD21-065	18.9	15	100	4.0	87	55	42	66	48	18
LD21-066	27.2	14	100	4.1	79	59	41	65	55	8
LD21-067	13.0	14	100	4.1	79	49	35	68	40	25
LD21-068	8.1	13	100	5.5	77	57	24	64	54	6

Table 4: Primary Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-069	11.6	15	100	4.1	73	51	30	61	47	6
LD21-070	7.0	16	100	4.0	75	53	18	64	50	20
LD21-071	39.5	19	100	3.8	84	58	61	62	50	18
LD21-072	33.7	18	100	3.9	67	53	40	65	45	19
LD21-073	17.0	8	100	2.6	88	58	35	73	49	25
LD21-074	11.3	16	100	4.0	69	51	23	64	47	10
LD21-075	15.3	17	100	3.9	76	52	37	65	44	27
LD21-076	20.4	16	100	3.9	94	55	41	60	52	9
LD21-077	5.5	16	100	4.1	75	49	20	57	48	11
LD21-078	5.5	15	100	4.1	67	51	17	59	50	9
LD21-079	16.9	14	100	4.1	79	55	30	64	50	4
LD21-080	9.4	15	100	4.2	80	53	27	61	50	22
LD21-081	9.6	15	100	4.1	73	54	24	60	52	14
LD21-082	21.0	14	100	4.1	86	55	38	62	52	16
LD21-083	11.9	14	100	4.1	79	52	31	68	45	23
LD21-084	16.0	14	100	4.1	93	52	36	63	46	11
LD21-086	6.1	15	100	4.0	67	54	13	66	52	13
LD21-087	4.9	15	100	4.0	67	51	11	64	49	27
LD21-088	23.3	11	100	4.5	64	53	28	61	50	17
LD21-089	6.7	14	100	4.1	71	50	19	63	47	2
LD21-090	3.5	16	100	3.9	56	48	8	69	47	15
LD21-091	14.1	15	100	4.0	73	51	33	65	45	23
LD21-092	39.1	17	100	3.8	76	58	63	64	49	11
LD21-094	5.3	17	100	3.9	65	51	11	61	50	14
LD21-095	7.6	12	100	4.5	58	48	14	62	46	22
LD21-096	9.9	14	100	4.1	71	52	21	58	50	18
LD21-097	5.5	14	100	4.1	57	53	15	64	51	11
LD21-098	7.5	14	100	4.2	43	47	14	64	44	40

Table 4: Primary Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
LD21-099	46.8	24	100	3.8	96	61	75	67	44	17
LD21-100	31.0	17	100	3.8	76	56	42	64	49	21
LD21-101	46.8	18	100	3.9	89	59	70	66	43	18
LD21-102	37.6	19	100	3.9	84	58	52	66	50	21
LD21-103	11.8	15	100	4.1	60	49	25	64	44	30
LD21-104	8.5	12	100	4.4	33	38	12	64	35	58
LD21-105	12.2	15	100	4.2	73	54	25	64	50	10
LD21-106	43.4	24	100	3.7	100	63	68	72	46	14
LD21-107	47.4	20	100	3.6	95	64	68	71	47	16
LD21-108	19.3	16	100	3.9	69	52	38	66	44	17
LD21-110	15.7	16	100	4.1	100	55	46	66	46	12
LD21-111	16.4	16	100	4.1	75	51	32	62	47	11
LD21-112	27.8	17	100	3.8	71	57	49	66	48	20
LD21-113	6.8	14	100	4.1	57	49	12	57	48	4
LD21-114	7.6	12	100	5.1	67	56	6	62	56	22
LD21-115	6.3	12	100	4.5	42	49	6	64	48	20
LD21-117	3.5	8	100	2.6	75	60	5	64	60	4
SD20-001	24.6	14	100	4.1	100	55	40	66	48	12
SD20-002	14.1	17	100	3.9	53	48	32	66	44	26
SD20-003	42.2	15	100	4.0	93	64	61	77	46	8
SD20-004	46.5	15	100	4.3	93	59	64	69	50	14
SD20-005	34.8	14	100	4.1	79	55	49	64	48	24
SD20-006	14.5	14	100	4.1	86	54	45	64	46	11
SD20-007	33.6	15	100	4.0	100	59	61	67	48	9
SD20-008	12.6	15	100	4.0	60	49	28	64	41	17
SD20-009	12.0	13	100	4.3	69	53	20	61	51	18
SD20-010	20.1	16	100	4.1	88	57	47	64	49	16
SD20-011	27.5	14	100	4.1	93	62	52	71	49	4

Table 4: Primary Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD20-012	18.8	17	100	3.9	65	52	41	60	47	7
SD20-013	25.1	20	100	4.2	65	48	33	62	43	5
SD20-014	32.1	15	100	4.1	80	62	45	74	53	0
SD20-015	18.1	15	100	4.0	67	56	23	64	53	7
SD20-016	12.9	15	100	4.1	40	43	15	73	38	29
SD20-017	8.8	15	100	4.1	47	46	16	62	43	34
SD20-018	24.4	15	100	4.1	87	62	47	73	51	16
SD20-019	33.6	15	100	4.1	80	53	56	59	45	18
SD20-020	35.4	20	100	3.7	70	62	43	75	52	7
SD20-021	41.2	17	100	3.9	71	56	74	60	46	19
SD20-022	30.0	17	100	4.1	71	56	41	66	52	0
SD20-023	11.1	16	100	4.3	44	44	14	61	44	11
SD20-024	22.0	14	100	4.1	79	53	43	62	47	24
SD20-025	23.4	15	100	4.1	67	51	44	60	46	23
SD20-026	12.6	14	100	4.1	79	54	29	62	50	6
SD20-027	24.0	17	100	4.0	71	53	45	61	45	6
SD20-028	43.9	16	100	4.1	62	53	51	62	43	23
SD20-029	10.5	14	100	4.1	71	54	28	62	51	14
SD20-030	14.7	15	100	4.0	73	50	37	60	45	25
SD20-031	22.0	16	100	3.9	81	54	50	64	44	28
SD20-032	23.9	17	100	3.8	59	50	36	65	41	31
SD20-033	14.4	15	100	4.0	100	55	35	62	52	10
SD20-034	10.1	15	100	4.2	73	50	25	60	47	12
SD20-035	12.2	15	100	4.1	80	53	32	59	50	8
SD20-036	17.9	14	100	4.1	79	51	37	64	44	22
SD20-037	13.8	13	100	4.5	46	43	18	61	39	37
SD20-038	42.8	22	100	3.8	91	61	64	68	49	19
SD20-039	21.3	17	100	3.8	76	54	40	66	46	17

Table 4: Primary Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD20-040	38.7	21	100	3.8	86	61	65	68	46	18
SD20-041	29.1	20	100	3.6	80	59	50	68	50	18
SD20-042	7.9	14	100	4.1	79	51	18	59	49	3
SD20-043	17.4	16	100	3.9	75	53	36	64	47	10
SD20-044	13.1	14	100	4.1	71	52	35	63	46	14
SD20-045	3.3	1	100	2.0	0	38	6	72	33	44
SD20-046	5.5	15	100	4.0	67	54	12	64	53	10
SD20-047	5.1	13	100	4.2	38	43	8	63	41	25
SD20-049	6.4	12	100	4.8	67	56	6	66	55	15
SD21-001	28.8	14	100	4.1	93	57	45	67	48	8
SD21-002	29.3	14	100	4.1	93	60	48	71	49	10
SD21-003	25.9	18	100	4.1	89	56	46	71	44	11
SD21-004	34.1	14	100	4.1	93	59	59	66	48	14
SD21-005	39.3	14	100	4.1	93	58	56	65	49	14
SD21-006	13.8	15	100	4.2	87	54	44	62	48	11
SD21-007	11.5	12	100	4.5	67	53	19	62	51	22
SD21-008	13.9	15	100	4.0	53	47	26	63	41	20
SD21-009	23.1	14	100	4.1	93	55	50	66	45	6
SD21-010	15.9	16	100	3.9	81	54	35	66	49	15
SD21-011	35.7	16	100	4.1	81	60	58	74	43	14
SD21-012	19.6	16	100	4.0	62	51	42	61	44	24
SD21-013	20.5	14	100	4.1	79	59	37	66	55	0
SD21-014	41.5	15	100	4.1	87	64	62	76	46	7
SD21-015	13.9	15	100	4.1	33	42	12	71	38	33
SD21-016	8.1	15	100	4.1	40	43	11	73	40	25
SD21-017	10.1	15	100	4.1	67	53	20	61	52	6
SD21-018	21.5	15	100	4.0	67	56	27	64	53	7
SD21-019	45.0	16	100	4.1	75	54	69	58	45	20

Table 4: Primary Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD21-020	26.2	17	100	4.0	65	55	34	77	47	8
SD21-021	18.3	15	100	4.1	60	49	41	60	43	6
SD21-022	33.2	19	100	3.7	74	61	38	74	52	8
SD21-023	16.0	17	100	4.1	47	46	23	58	44	30
SD21-024	28.4	18	100	4.1	78	51	43	70	41	9
SD21-025	17.1	14	100	4.1	79	53	34	60	50	22
SD21-026	16.8	15	100	4.0	73	54	39	61	49	29
SD21-027	26.2	16	100	4.1	62	52	36	63	45	16
SD21-028	49.5	16	100	4.1	81	55	65	62	42	23
SD21-029	17.3	14	100	4.1	79	49	39	64	40	25
SD21-030	8.8	14	100	4.1	79	55	24	61	53	13
SD21-031	11.5	16	100	4.0	69	48	30	64	41	26
SD21-032	33.8	18	100	3.9	67	52	47	63	43	30
SD21-033	14.4	15	100	4.0	100	55	35	62	52	9
SD21-034	18.9	16	100	3.9	81	54	38	62	49	4
SD21-035	11.1	15	100	4.1	80	53	30	60	50	8
SD21-036	4.2	15	100	4.0	53	48	10	64	45	16
SD21-037	10.7	14	100	4.1	64	51	24	60	48	13
SD21-038	33.4	20	100	3.6	90	61	56	70	49	16
SD21-039	39.0	21	100	3.6	90	62	66	69	47	15
SD21-040	47.5	21	100	3.8	100	63	72	68	48	18
SD21-041	10.0	12	100	4.4	50	44	20	63	40	32
SD21-042	20.3	15	100	4.2	67	55	27	64	52	12
SD21-043	17.9	16	100	3.9	75	53	37	64	47	10
SD21-044	12.7	15	100	4.3	73	51	35	64	43	14
SD21-045	7.1	14	100	4.1	79	54	18	59	52	2
SD21-046	4.6	14	100	4.1	57	51	7	69	49	8
SD21-048	5.2	15	100	4.0	53	46	9	58	45	3

Table 4: Primary Elections (contests with Black candidate) *(continued)*

District	Percent Black Voting Age Population	Number of Contests	Percent of Black-preferred candidates Democratic	Average Number of Candidates	Black-preferred win rate	Average Black-preferred candidate vote share	Avg. Pct. Voters Black	Avg. ER Black cohesion (pct.)	Avg. ER White crossover support (pct.)	Pct. Black needed for majority
SD21-049	6.9	12	100	4.8	67	56	7	65	55	15

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