IN THE UNITED STATES DISTRICT COURT

FOR THE MIDDLE DISTRICT OF NORTH CAROLINA

NO. 1:13-CV-00949

DAVID HARRIS; CHRISTINE BOWSER; and SAMUEL LOVE,
 	
     Plaintiffs,
 	
     v.
 	
 PATRICK MCCRORY, in his capacity as Governor of North Carolina; NORTH CAROLINA STATE BOARD OF ELECTIONS; and JOSHUA HOWARD, in his capacity as Chairman of the North Carolina State Board of Elections,
 	
     Defendants.
	PLAINTIFFS' REPLY IN SUPPORT OF MOTION FOR PRELIMINARY INJUNCTION
	
	 Oral Argument Requested

TABLE OF CONTENTS

Plaintiffs, by and through their counsel of record, submit this Reply in Support of their Motion for Preliminary Injunction. As set out in Plaintiffs' Motion for Oral Argument (Dkt. #28), Plaintiffs respectfully ask the Court to set this motion for hearing.

A. Plaintiffs Have Demonstrated They Are Likely to Succeed on the Merits

1. The State Cannot Justify Its Race-Based Redistricting of CD 1

a. Race Was the Predominant Factor in Drawing CD 1

The State's attempts to argue that race was not the predominant factor in drawing Congressional District 1 ("CD 1") cannot be squared with the record.

Plaintiffs have already detailed the State's race-centered approach to drawing CD 1 (Dkt. #36, Mem. at 6-10) and will not repeat that evidence here. Suffice to say, legislative leaders stated that they redrew CD 1 to include a majority of African-Americans by voting age population ("BVAP") because they believed Section 2 of the Voting Rights Act ("VRA") obligated them to do so, and that they subordinated other redistricting criteria to accomplish that goal.[1] The State's evidence only reinforces this fact. Most notably, the expert report submitted by the mapdrawer, Dr. Thomas Hofeller, asserts that CD 1 "*must* be characterized as a 'VRA Section 2 Minority District.'" Dkt. 33-2 (Hofeller Report), ¶ 19 (emphasis added).[2] All of the evidence before the Court

---

[1] *See, e.g.*, Dkt. #18-2, Ex. 14 (CD 1 "must include a sufficient number of African-Americans so that [CD 1] can re-establish as a majority black district"); *id.*, Ex. 13, at 3 (CD 1 was redrawn to include a majority BVAP "as required by Section 2 of the [VRA]"); *id.*, Ex. 12, at 7 (the 2011 Congressional Plan's "precinct divisions were prompted by the creation of Congressman Butterfield's majority black [CD 1]").

[2] Dr. Hofeller repeatedly emphasizes the central role race played in drawing CD 1. *See, e.g.*, Hofeller Report ¶ 42 ("[T]he General Assembly determined that the New District 1 had to be a majority-minority district which required an African-American TBVAP in excess of 50%."); *id.* ¶ 31 ("District 1 was and is clearly identified as a 'Section 2 district' and must be constructed in that context."); *id.* ¶ 20 ("Even though other policy goals played an important role in the location of the 1st District, obtaining U. S. Department of Justice (DOJ) preclearance was always an important policy objective.").

reveals that in drawing CD 1, the mapdrawers' primary intent was to make it a majority-minority district.

It is thus no surprise that the State Court, whose opinion the State otherwise embraces, found that race was the predominant factor behind CD 1. *See* State Court Opinion, at 14.[3] In arguing this Court should conclude to the contrary, the State argues race was not the *only* factor behind CD 1 and so, *ipse dixit*, race was not the predominant factor. But the "fact that other considerations may have played a role in . . . redistricting does not mean that race did not predominate." *Clark v. Putnam Cnty.*, 293 F.3d 1261, 1270 (11th Cir. 2002).[4] The math is inexorable. Because the State wanted to draw CD 1 as majority-BVAP, whatever its other interests, the *one thing* that would be (and is) true about the District is that the mapdrawer needed to (and did) identify and include new areas based on the racial composition of the people who live within them.

In any event, the State's proffered "race-neutral" justifications for CD 1 in no way detract from the conclusion that race was the predominant factor behind CD 1. First, the State points to its purported desire to address a theoretical future underpopulation of CD 1 after the 2020 Census. To begin, the State cites no authority to establish that a hypothetical change in future population can serve as a legal justification for district line-

---

[3] The State claims that "the claims raised by the plaintiffs in the instant case have been thoroughly litigated" and "the State court entered a lengthy and detailed opinion rejecting [those] claims." Resp. at 1. The State provides no legal argument on this point, however, presumably because the state court litigation was brought under both state and federal law, and both the parties and the State Court's judgment focused primarily on state legislative districts.
[4] *See also Bush v. Vera*, 517 U.S. 952, 963 (1996) (race was predominant factor where a legislature conceded one of its objectives was to create majority-minority districts, notwithstanding that "[s]everal factors other than race were at work in the drawing of the districts"); *Miller v. Johnson*, 515 U.S. 900, 918 (1995) (race was predominant purpose where it was undisputed that a district was "the product of a desire by the General Assembly to create a majority black district" even though districts were of equal population); *Diaz v. Silver*, 978 F. Supp. 96, 119 (E.D.N.Y.) *aff'd*, 522 U.S. 801,*and aff'd sub nom*. *Acosta v. Diaz*, 522 U.S. 801 (1997*) and aff'd sub nom*. *Lau v. Diaz*, 522 U.S. 801 (race was predominant factor where legislature admittedly sought to draw majority-minority districts, "overriding any other concern including incumbency").

drawing. Even if it were, it simply begs the question: How did the State determine *which* individuals should be drawn into CD 1? The State provides no answer—it cites no model or method by which it evaluated population growth, made projections, and determined which parts of the Research Triangle Park area would address the supposed issue.

The reason for the State's silence is made obvious by the underlying data. Defendants' efforts to explain CD 1 as the product of an effort to stabilize the District's population in fact demonstrates that—true to its goal of creating a "Minority District"— race was the factor that could not be compromised in the construction of the district. CD 1 now includes *more than 78% of all African-American registered voters in Durham County*, compared to only 39% of white voters. *See* Second Ansolabehere Report ¶ 49 (copy attached as Exhibit 1); *see also Miller*, 515 U.S. at 916 (plaintiffs' burden is to show "that race was the predominant factor motivating the legislature's decision to place *a significant number of voters* within or without a particular district") (emphasis added). The fact that a Durham County voter was twice as likely to be pulled into CD 1 if he is African-American than if he is white is not explained by a population projection; it is explained by race. Further, the State's post-litigation explanation that the State pulled portions of Durham County into CD 1 simply to address population fluctuations is not consistent with its earlier assertions. The State's preclearance submission expressly identified the "majority African-American status of [CD 1]" as a basis for extending CD 1 into Durham County. Dkt. #18-2, Ex. 7, at 13.

- 3 -

Second, the State claims it drew CD 1 to address a request by Congressman Butterfield, a decision that "ha[d] nothing to do with race." Dkt. #29, Resp. at 28-29. But Dr. Hofeller describes this alleged request in expressly racial terms: A "minority Congressman" requested that CD 1 be drawn to "have the same number of adult African-Americans drawn from counties covered by Section 5 of the VRA, as were contained in the Old District." Hofeller Report ¶ 50. This has everything to do with race.

Third, the State points to the Republican majority's desire to increase its political advantage. But in drawing CD 1 as a "Minority District," the State's lodestar was race, not politics, as shown by the fact that voter tabulation districts that were retained, added, or removed from CD 1 are best explained by race, not political affiliation. See Dkt. #18-1, ¶¶ 22-32, 40-43, 46-48, 50-53.[5] "Race was the criterion that, in the State's view, could not be compromised," and thus the State's political goals "came into play only after the race-based decision had been made." *Shaw v. Hunt*, 517 U.S. 899, 907 (1996).

It is obvious from the State's contemporaneous statements, the underlying data, and the State's response to this motion that race was the predominant factor behind CD 1.

---

[5] The State's contention that the *Cromartie* cases hold that it is error to use party registration statistics to examine the relationship between race and politics misreads those cases badly. In fact, the Court in *Cromartie I* held that evidence that the State excluded from CD 12 precincts that had a lower percentage of black population but were as Democratic (in terms of registered voters) as the precincts inside CD 12 "tends to support an inference that the State drew its district lines with an impermissible racial motive." *Hunt v. Cromartie*, 526 U.S. 541, 548-49 (1999). It simply found that the District Court erred in granting summary judgment to the plaintiffs. *Id.* at 550-54. And in *Cromartie II*, the Court was persuaded by the State's evidence of its political motivations—a report by Dr. Peterson that relied on years of election data to show that "the State included the more heavily Democratic precinct much more often than the more heavily black precinct," which refuted the plaintiffs' registration-based evidence. *Id.* at 549-50; *see also Easley v. Cromartie*, 532 U.S. 234, 243-46 (2001). Ironically, Dr. Peterson testified on behalf of the plaintiffs in the case currently pending before the North Carolina Supreme Court, performed the same analysis he did in *Cromartie*, and concluded that race better explains the contours of CD 12. *See* Second Declaration of John Devaney ("Second Devaney Declaration") (copy attached as Exhibit 2), ¶ 2 & Ex. 1 (Second Affidavit of David Peterson, Ph.D). The State, understandably, does not highlight Dr. Peterson's analysis to this Court.

b. The State Cannot Meet Its Burden on Strict Scrutiny

(i) No Showing that Section 2 Compliance Was a Compelling Interest to Which CD 1 Was Narrowly Tailored

Because race was the predominant factor in drawing CD 1, this Court must "conduct the most exacting judicial examination of the evidence of the State." *H.B. Rowe Co. v. Tippett*, 615 F.3d 233, 250 (4th Cir. 2010) (internal quotation marks and citations omitted). That is, "[s]trict scrutiny remains . . . strict." *Bush*, 517 U.S. at 978.

In tacit acknowledgment that CD 1 was drawn based on race, the State argues that it did so because it had a "reasonable fear" of liability under Section 2. In making this argument, the State takes on the demanding burden of establishing a "'strong basis in evidence' for finding that the threshold conditions for § 2 liability are present," *Bush*, 517 U.S. at 978, lest Section 2 be used to justify the racially-discriminatory gerrymandering it was intended to preclude. But the State never addresses why it believed the preconditions for Section 2 liability applied to CD 1, and instead seeks to divert the analysis to a false debate over whether there is racially polarized voting in North Carolina.

As to the first of the preconditions—the minority group must be "sufficiently large and geographically compact to constitute a majority," *Thornburg v. Gingles*, 478 U.S. 30, 50-51 (1986)—the State provides no evidence to support its contention that a cohesive and geographically compact African-American community exists in CD 1, such that it could constitute the majority of the district's BVAP. Indeed, the State offers no evidence that it even *evaluated* this factor. The State instead admits that it could not draw CD 1 as

a majority-BVAP district without greatly *expanding* its boundaries. Dkt. #18-2, Ex. 7, at

13.[6] A State cannot use Section 2 to justify its race-based redistricting where it draws a

district that "reaches out to grab small and apparently isolated minority communities

which, based on the evidence presented, could not possibly form part of a compact

majority-minority district." *Bush*, 517 U.S. at 979; *see also Shaw*, 517 U.S. at 916.

The State's response to the third precondition—the white majority must vote

"sufficiently as a bloc to enable it . . . usually to defeat the minority's preferred

candidate," *Thornburg*, 478 U.S. at 50-51—is even more confounding. As Plaintiffs

explained in their Memorandum, by 2011, there were two decades of election results

proving that the African-American community in Northeastern North Carolina can elect

its representative of choice *even if it does not constitute a majority of CD 1*. The State's

only response is that this data does not prove "the absence of racially polarized voting,"

Resp. at 31, failing to recognize it is the *State's* burden to prove the presence and extent

of racially polarized voting. The State also makes the curious statement that "whites

could never join in a bloc to defeat the African-American candidate of choice," *id.*, a fact

that only shows that the third precondition for Section 2 liability was not present. In

short, there was no basis for the State to have concluded that it needed to dramatically

increase the number of African-American voters in CD 1 to prevent the majority from

defeating the minority's preferred candidate. If the State was defending against a Section

---

[6] The State takes issue with the very notion that it must demonstrate a geographically compact African-American
population, dismissing measures of compactness as meaningless. But a Section 2 violation requires proof of a
geographically compact minority community. *Bush*, 517 U.S. at 979 ("If, because of the dispersion of the minority
population, a reasonably compact majority-minority district cannot be created, § 2 does not require a majority-
minority district."). The Fourth Circuit does not hesitate to reject Section 2 claims where the plaintiff fails to
establish this precondition, such as where, as here, the minority community is spread throughout the geographic
region in question. *Gause v. Brunswick Cnty., N.C.*, 92 F.3d 1178 (4th Cir. 1996).

2 lawsuit, instead of disingenuously relying on Section 2 as a talisman, that is precisely the point it would make. *See, e.g.*, *Rodriguez v. Pataki*, 308 F. Supp. 2d 346, 438-39 (S.D.N.Y.) (rejecting an "analysis [that] examines racially polarized voting without addressing the specifics of the third *Gingles* factor, which requires white majority bloc voting that usually defeats the [minority]-preferred candidate" and noting that "[e]ven if there were racially polarized voting, the report does not speak—one way or the other—to the effects of the polarized voting"), *aff'd*, 543 U.S. 997 (2004).

Finally, the State's opposition brief never suggests that the State considered the totality of the circumstances inquiry under Section 2, much less had a "strong basis" for concluding it faced a serious risk of Section 2 liability unless it recast CD 1 as a majority-BVAP district.

(ii)   No Showing that Section 5 Constituted a Compelling Interest

The State also argues that its use of race in drawing CD 1 is justified by Section 5 of the VRA. But the State does not even attempt to respond to Plaintiffs' main point: Even if Section 5 remained effective after *Shelby County, Alabama v. Holder*, 570 U.S. __, 133 S. Ct. 2612 (2013), the changes the State made would not have been required by Section 5, because the State did not hold CD 1's BVAP steady to avoid retrogression—it dramatically *increased* the number of African-American voters to make CD 1 BVAP-majority. *See Bush*, 517 U.S. at 983 (rejecting argument that Section 5 can "justify not maintenance, but substantial augmentation, of the African-American population percentage" in the challenged district).

- 7 -

Moreover, while the State acknowledges that, in the wake of *Shelby County*, states cannot "use § 5 to justify future majority-minority districts," Resp. at 35, the State advances (with no legal support) the startling proposition that the compelling state interest inquiry ends upon enactment of a districting plan. That assumption ignores a well-developed body of case law holding that changes in either factual circumstances or the legal landscape can render a law unconstitutional even though it would have survived strict scrutiny at some point in the past. For example, in the wake of the seminal redistricting cases requiring that districts be composed of equal population, *see, e.g.*, *Reynolds v. Sims*, 377 U.S. 533 (1964), the Supreme Court affirmed an order requiring reapportionment of the Indiana General Assembly on the basis of population inequalities across districts. *Whitcomb v. Chavis*, 403 U.S. 124, 162-63 (1971). The Court flatly rejected the State's argument that a federal court had already approved its apportionment scheme in 1965 and it could not be compelled to redistrict again before the next Census:

> Here, the District Court did not order reapportionment as a result of population shifts since the 1965 Stout decision, but only because the disparities among districts which were thought to be permissible at the time of that decision had been shown by intervening decisions of this Court to be excessive.

Id. Thus, a court may order statewide redistricting where "intervening decisions of [the Supreme] Court" establish that a redistricting plan is no longer valid. *Id*. at 163.

Because the VRA no longer requires North Carolina to draw district lines to satisfy preclearance requirements, Section 5 cannot constitute a compelling state interest for the State's predominant use of race in drawing CD 1.

- 8 -

2. The State Cannot Justify Its Race-Based Redistricting of CD 12

a. Race Was the Predominant Factor in Drawing CD 12

In redrawing CD 12, the State ramped up the district's BVAP by nearly 7% and made the district majority-minority. Nonetheless, the State's expert asserts that CD 12 was "drawn without race as a factor." Hofeller Report ¶ 38. That statement is directly contradicted by the record and strains credulity. The State has previously described CD 12 as "an African-American" district. Dkt. #18-2, Ex. 7. And Rucho and Lewis, the plan's legislative sponsors, explained that this new "African American" district was "drawn . . . at a Black voting age level that is above the percentage of Black voting age population found in the current Twelfth District." *Id.*, Ex. 7, at 24. Thus, the State's argument that it did *not* draw CD 12 predominantly on the basis of race—or, indeed, did not consider race at all—would require the Court to credit the proposition that although Rucho and Lewis *said* the State purposefully increased this "African-American" district's African-American population, it is mere coincidence that the BVAP of CD 12 increased dramatically from 43.77% to 50.66%.

As the State would tell it now, the difference between old CD 12 and new CD 12 is that the State "added more Democratic voters . . . and removed Republican voters." Resp. at 24-25. The State's "race-neutral" explanation is that Dr. Hofeller used data pertaining to a single election—of the Nation's first African-American President, with unusually high African-American voter turnout—to reconstruct CD 12 to pack Democrats into CD 12 and bolster Republican performance in surrounding districts. The threshold problem with the State's explanation is that Dr. Hofeller could not have relied

- 9 -

solely on election returns for the 2008 presidential election. Political data is available only at the precinct-level; racial data is available at a sub-precinct level. Dr. Hofeller split VTDs to create CD 12, necessarily examining data at the sub-precinct level. *See* Second Devaney Decl. ¶ 3 & Ex. 2 (Hofeller Dep. Tr. at 47:14-50:13, 218:4-219:19).[7] Moreover, Plaintiffs demonstrated in their opening brief that race, not politics, explains the contours of new CD 12. Notably, the State moved White Democrats out of CD 12 and moved Black and Independent Republicans *into* CD 12 at disproportionately high rates. *See* Ansolabehere Report ¶¶ 20-53.

Further, the State's explanation defies common sense. If the State wanted to diminish the influence of individuals who vote for Democratic congressional candidates—the "legitimate" policy goal the State invokes as a talisman again and again—one would expect the State to consider election results from several elections, including recent Congressional elections. It did not, and the State's purported use of election data from a single, uniquely racially polarized Presidential election, further demonstrates that the State did not draw CD 12 for political purposes, but rather based on race. *See Old Person v. Cooney*, 230 F.3d 1113, 1123-24 (9th Cir. 2000) (noting that elections involving minority candidates are usually used for the purpose of assessing the existence of racially polarized voting).

---

[7] Notably, if Dr. Hofeller concededly set out to make CD 1 majority-minority—as he says he did—it is unclear how he could have accomplished that goal without considering the racial demographics of the districts he was drawing.

The last time CD 12 was drawn to be majority-African-American, the Supreme Court rejected it is as a racial gerrymander. *See generally Shaw*, 517 U.S. 899. This Court should do the same here.

b. The State Cannot Meet Its Burden on Strict Scrutiny

The State does not identify any compelling interest that would justify its use of race or explain why CD 12 is narrowly tailored to serving such an interest. If the Court finds that CD 12 was drawn predominantly on the basis of race, the State has conceded that CD 12 is unconstitutional.[8]

B. Plaintiffs are Likely to Suffer Irreparable Harm

For preliminary relief to be appropriate, Plaintiffs must establish that they are likely to suffer irreparable harm if relief is not granted. *Real Truth About Obama, Inc. v. Fed. Election Comm'n*, 575 F.3d 342, 346 (4th Cir. 2009) (citing *Winter v. Natural Res. Def. Council, Inc.*, 555 U.S. 7 (2008)), *vacated on other grounds*, 559 U.S. 1089 (2010).[9] As Plaintiffs explained in their opening brief, the claims at issue in this case relate to Plaintiffs' core constitutional rights, and a deprivation of those rights, even for a single election, unquestionably constitutes irreparable harm. The State responds that any harm

---

[8] Dr. Hofeller explains, "[t]he General Assembly, mindful that Guilford County was covered by Section 5 of the VRA, determined that it was prudent to reunify the African-American community in Guilford County" in CD 12. Hofeller Report ¶ 39. The State's reluctance to rely squarely on Section 5 to justify its decision to turn CD 12 into a majority-BVAP district is understandable. As discussed above, Section 5 no longer applies to Guilford County in the wake of *Shelby County*. Even if it did, Section 5 precludes only retrogression—for example, splitting the African-American community in Guilford County further. It cannot be used to, as the State described it in its preclearance submission, " increase[] the African-American community's ability to elect their candidate of choice." Dkt. #18-2, Ex. 7.

[9] The State is correct that the Fourth Circuit has effectively overruled the preliminary injunction standard stated in *Blackwelder Furniture Co. v. Selig Mfg. Co.*, 550 F.2d 189 (4th Cir. 1997). *See Real Truth About Obama*, 575 F.3d at 346-47. Plaintiffs cited pre-*Winter* redistricting cases, including *Cannon v. North Carolina Board of Elections*, 917 F. Supp. 387 (E.D.N.C. 1996), primarily to illustrate the unique harms at stake in redistricting cases, and courts' sensitivity to those harms. Each element of the four-factor test for issuing an injunction must be independently satisfied, and the strength of a showing of one factor does not lessen the burden of proof on another.

to Plaintiffs is "speculative" because the 2011 congressional map was used in 2012, and a North Carolina state court found the map constitutional (a decision currently under review by the North Carolina Supreme Court).[10] The State is wrong.

To begin, the premise of the State's argument is incorrect. The question of irreparable harm asks whether, if that party ultimately succeeds on the merits, it will have suffered irreparable harm from having been denied preliminary relief. *See, e.g., Elrod v. Burns*, 427 U.S. 347, 373 (1976) (finding that "[t]he loss of First Amendment freedoms, for even minimal periods of time, unquestionably constitutes irreparable injury," without reference to the likelihood that plaintiffs will ultimately prove such loss); *see also Real Truth About Obama, Inc. v. Fed. Election Comm'n*, 575 F.3d at 346 (explaining that the likelihood of success inquiry is separate from likelihood of irreparable harm). To the extent the State Court's finding is relevant, it is relevant only to the likelihood of success on the merits, not the likelihood that Plaintiffs will suffer irreparable harm if they are denied preliminary relief and later succeed on the merits.

In addition, there is nothing "speculative" about the harm Plaintiffs will have suffered if the congressional map is declared unconstitutional. As Plaintiffs explained in their opening brief, a congressional election would be held based on a map that not only violates Plaintiffs' core constitutional rights (and the rights of those similarly situated), but also reinforces harmful racial stereotypes and stigmas. Indeed, even the State would likely suffer irreparable harm. *See Giovani Carandola, Ltd. v. Bason*, 303 F.3d 507, 521

---

[10] Although each element of the preliminary injunction standard must be analyzed separately, and although Plaintiffs presented their arguments that way, the State lumps together its arguments on three of the four elements: irreparable harm, balance of equities, and public interest. Plaintiffs have attempted to match the State's arguments back to the legal standard and address them in turn.

(4th Cir. 2002) (observing that a state benefits from an injunction that prevents the state from enforcing an unconstitutional law).

Further, the State is incorrect that use of the congressional map in the 2012 election establishes that Plaintiffs are not likely to suffer irreparable harm in the 2014 election. The State cites no authority for its position that once an electoral map is used (even if unconstitutionally) there can be no harm from its future use. Moreover, as discussed below, the legal landscape has changed since 2012, and any purported interest the State may have once had in drawing CD 1 or CD 12 based on race to comply with Section 5 of the VRA is now gone.

C.   The Equities Favor Granting Preliminary Relief

The State argues that the equities weigh against preliminary relief for two reasons: (1) Plaintiffs waited too long to raise their claims, and (2) preliminary relief would inflict irreparable harm on the State. Neither argument has merit.

To advance its claim that Plaintiffs have not been sufficiently diligent, the State starts the clock in July 2011, when the 2011 congressional plan was enacted. Resp. at 29. In doing so, the State ignores the role the Supreme Court's decision in *Shelby County* plays in Plaintiffs' case. In passing the 2011 Congressional Plan, the State expressly relied on Section 5. The Court's decision changed the landscape of redistricting law by removing any purported interest the State may have once had in drawing a congressional map based on race to comply with Section 5. The State also ignores the timeline of the state court litigation, which for a time held the possibility of relief prior to the 2014

- 13 -

election cycle. The North Carolina Supreme Court has now refused to grant preliminary injunctive relief. *See Dickson v. Rucho*, No. 201PA12-2.

Viewed in this context, it is clear that Plaintiffs did not delay raising their claims. Plaintiffs filed suit four months after the Court's landmark decision in *Shelby County*, three months after the state court case went on appeal (which dramatically reduced the odds of relief prior to the 2014 election), four months before the 2014 candidate registration period, seven months before the primary election, and more than a year before the general election. Plaintiffs retained an expert, and drafted and filed this motion for a preliminary injunction, a mere 60 days after filing suit.

The State further argues that even if Plaintiffs did not delay, courts have "permit[ted] elections under illegal plans because these plans were not invalidated until late in the election process." Resp. at 40. The case law on which the State relies relates primarily to instances in which a court has adopted an interim map, on a temporary basis, which may be flawed but is necessary to allow elections to proceed while a more permanent map is developed. *See, e.g.*, *Watkins v. Mabus*, 771 F. Supp. 789, 802-805 (S.D. Miss. 1991), *aff'd in part, vacated in part*, 502 U.S. 954. The State's argument jumps the gun—the issue presented here is not what relief should be granted *after* the State's map is found to be invalid, but what to do in the period before a final decision on the merits. Further, the timelines in the two cases cited by the State were much different than the timeline here; in one, *Watkins*, 771 F. Supp. 789 (S.D. Miss. 1991), the decision was issued within a month of the primary election, and in the other, *Dixon v. Hassler*, 412 F. Supp. 1036 (D.C. Tenn. 1976), it was issued only a week before the general election.

Here, we are still three months away from the primary election and ten months away from the general election.

The State is also incorrect that inconvenience or harm to the State precludes preliminary relief. As Plaintiffs stated in their opening brief, "a state is in no way harmed by issuance of a preliminary injunction which prevents the state from enforcing restrictions likely to be found unconstitutional." *Giovani Carandola*, 303 F.3d at 521. The State's position that any order enjoining a state from effectuating its statutes constitutes undue irreparable injury would effectively foreclose preliminary relief in any redistricting case, a result not supported by the rules or case law.

D.   The Public Interest Is Served by Granting Preliminary Relief

To reiterate, "upholding constitutional rights is in the public interest," *Legend Night Club v. Miller*, 637 F.3d 291, 303 (4th Cir. 2011) (citing *Giovani Carandola*, 303 F.3d at 521), as is avoiding the damaging collateral effects of racial gerrymanders, *see Shaw v. Reno*, 509 U.S. 630, 643, 647, 648 (1993). The State has no response on these points, and instead attempts to steer the Court's attention to the purported cost, confusion, and effect on turnout of granting preliminary relief.[11]

But the State's argument only bolsters the importance of granting preliminary relief. If Plaintiffs are likely to succeed on the merits (an issue addressed above), and the State is correct that changing electoral maps is costly, confusing, and dampens turnout, the public interest is best served by adopting a new map *now*, as far in advance of the

_____

[11] The State misstates Plaintiff's position as seeking to enjoin "the 2014 congressional elections." Resp. at 40. Plaintiffs have never asked that the elections themselves be enjoined, only that the State be precluded from commencing the 2014 election cycle using the current race-based boundaries for CD 1 and CD 12. Plaintiffs seek to have a new map adopted quickly, so the 2014 congressional elections may proceed as scheduled.

- 15 -

elections as possible. The magnitude of the cost, confusion and turnout issues will only

grow as the election nears, and the time to implement changes and educate candidates

and voters decreases. *See* Defendants' Memorandum in Opposition to Plaintiffs' Motion

for a Preliminary Injunction, Exs. O, P.[12]

Further, for evidence of expense, confusion, and low turnout, the State relies

solely on two affidavits submitted in the state court litigation. (Resp. at 40.) Those

affidavits addressed the potential challenges of moving the date of an election primary

(a) in a presidential election year, (b) in a case in which numerous federal and state

political boundaries were at issue, and (c) pursuant to Section 5 preclearance procedures.

None of those circumstances exists here. Moreover, the State has provided *no* evidence

of harm to the public interest if an interim map is adopted in time for the primary election

to stay on schedule, which is exactly what Plaintiffs seek to do. *See* N.C. Gen. Stat.

§ 120-2.4 (requiring only two weeks to "remedy any defects" in voting districts).

CONCLUSION

For the reasons stated above, and in Plaintiffs' Motion for Preliminary Injunction,

the Court should enter a preliminary injunction enjoining the State from holding elections

under the 2011 Congressional Plan.

---

[12] The State's concern about voter confusion rings particularly hollow in light of the fact that Plaintiffs seek a more sensible map for CD 12, which is commonly recognized as the least compact, most bizarrely-drawn congressional district in the country. *See* Memorandum in Support of Plaintiffs' Motion for Preliminary Injunction at 21.

Respectfully submitted, this the 3rd day of February, 2014.

PERKINS COIE LLP

/s/ John M. Devaney
John M. Devaney
D.C. Bar No. 375465
JDevaney@perkinscoie.com
/s/ Marc E. Elias
Marc E. Elias
D.C. Bar No. 442007
MElias@perkinscoie.com
700 Thirteenth Street, N.W., Suite 600
Washington, D.C. 20005-3960
Telephone: (202) 654-6200
Facsimile: (202) 654-6211

/s/ Kevin J. Hamilton
Kevin J. Hamilton
Washington Bar No. 15648
khamilton@perkinscoie.com
1201 Third Avenue, Suite 4800
Seattle, WA 98101-3099
Telephone: (206) 359-8741
Facsimile: (206) 359-9741

Attorneys for Plaintiffs

POYNER SPRUILL LLP

/s/ Edwin M. Speas, Jr.
Edwin M. Speas, Jr.
N.C. State Bar No. 4112
espeas@poynerspruill.com
John W. O'Hale
N.C. State Bar No. 35895
johale@poynerspruill.com
Caroline P. Mackie
N.C. State Bar No. 41512
cmackie@poynerspruill.com
P.O. Box 1801 (27602-1801)
301 Fayetteville St., Suite 1900
Raleigh, NC 27601
Telephone: (919) 783-6400
Facsimile: (919) 783-1075

Local Rule 83.1
Attorneys for Plaintiffs

CERTIFICATE OF SERVICE

I hereby certify that on this date I served a copy of the foregoing **PLAINTIFFS'
REPLY IN SUPPORT OF MOTION FOR PRELIMINARY INJUNCTION** to be
made by electronic filing with the Clerk of the Court using the CM/ECF System, which
will send a Notice of Electronic Filing to all parties with an e-mail address of record, who
have appeared and consent to electronic service in this action.

This the 3rd day of February, 2014.

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

REPORT OF STEPHEN ANSOLABEHERE IN RESPONSE TO THOMAS B. HOFELLER

I. Statement of Inquiry

1. I have been asked to evaluate the rebuttal report issued by Dr. Thomas B. Hofeller in this case.

II. Background and Qualifications

2. My background and qualifications are discussed in my initial report, signed December 23, 2013.

III. Sources

3. I relied on data and tables available through the North Carolina General Assembly website: http://www.ncleg.net/representation/redistricting.aspx.

IV. Findings

A. Geographic Characteristics of CDs 1 and 12

4. Dr. Hofeller states that the reduction in compactness in CDs 1 and 12 is not substantial. Specifically, he states that a reduction of the Reock score from .116 to

Exhibit 1 - Ansolabehere Report
p. 1 of 19

.071 in CD 12 and from .394 to .296 in CD 1 is small compared with the difference

between those districts' scores and the Reock score of the ideal square district

(.637) or ideal circular district (1.00). (Paragraphs 35-38 of his report.)

5. This observation underscores the fact that CD 12 was highly non-compact in the

2001-2011 map, and the new map, rather than improving on the district's

compactness, only made it worse. Dr. Hofeller concedes that "both versions of the

12th District have miserable scores." (Paragraph 37)   A Reock score can never go

above 1 or below 0. It is the ratio of the area of a given district to the area of the

most compact district of the same length (i.e., the inscribing circle). The lower the

Reock score the smaller the area covered by the district relative to the most

compact district of the same length. The smaller area actually covered for a given

length, the less compact the district is. Or to put it another way, comparing two

districts of the same area, the district that has a longer perimeter to encompass that

area is less compact. Previous CD 12, the least compact district in the 2001 to 2011

map, had a very low Reock score of .116. The Reock of new CD 12 is even closer to

the lower bound of 0.

6. New CD 1 has a Reock compactness score that is 37 percent lower than the Reock

score of previous CD 1. That is, the new version of CD 1 reduced by 37 percent the

area covered by CD 1 relative to the smallest inscribing circle around the district.

New CD 12 has a Reock compactness score that is 25 percent lower than that of

Previous CD 12. These are noticeable reductions in the area of these districts, relative to the ideal district of the same length (i.e., the smallest inscribing circle).

7. Dr. Hofeller does not discuss the alternative measure of compactness offered in my report, which is the ratio of the area of a district to its perimeter. See Table 1 in my original report. The Area to Perimeter measure offers a somewhat different score of compactness. Comparing two districts of the same area, the district that has a longer perimeter to encompass that area is less compact. Or alternatively, the district that covers less area per mile of perimeter is less compact.

8. The new version of CD 1 has a ratio of Area to Perimeter of 6896, compared with 11098 in the previous version. In other words, each mile of perimeter in new CD 1 incorporates or encompasses 6,896 miles of land area. By comparison, each mile of perimeter in Previous CD 1 incorporates or encompasses 11,098 miles of land area. That is a 38% reduction in the compactness as measured by the Area to Perimeter metric (i.e., (11098-6898)/11098). This is the second largest reduction in the ratio of area to perimeter in the map.

9. The new version of CD 12 has a ratio of Area to Perimeter of 1839, compared with 2404 in the old version. In other words, each mile of perimeter in new CD 12 incorporates or encompasses 1,839 miles of land area. By comparison, each mile of perimeter in old CD 12 incorporates or encompasses 2,404 miles of land area. That is a 24% reduction in the compactness as measured by the Area to Perimeter metric

3

(i.e., (2404-1839)/2404). CD 12 already had, by far, the lowest ratio of Area to

Perimeter, and it has the fifth largest reduction in this compactness measure in the

map.

10. Dr. Hofeller points out that four other districts are highly non-compact

according to the Reock measure. These are new CDs 4, 6, 9, and 11. (Paragraph 38)

New CDs 4, 6, and 9 border new CDs 1 and 12 and are likely affected by the non-

compact configurations of CDs 1 and 12. New CD 11 covers most of western North

Carolina, and much of its shape is defined (and constrained) by the border of the

state.

11. Both Reock and Area to Perimeter scores reveal that the map reduced the

compactness of CDs 1 and 12 substantially, and CD 12 was already highly non-

compact. Compactness is a traditional redistricting principle. Neither new CD 1 nor

new CD 12 were constructed to improve their compactness.

B. Obama Vote, Black Registration, and Black VAP

12. Dr. Hoffeler states that the vote for Obama in 2008 was used as the main

indicator in drawing district boundaries. He suggests that the Obama vote in 2008

was used to achieve partisan purposes, but offers no supporting evidence that these

data had primarily partisan and not racial effects. (Paragraphs 36-39, 59-64)

4

13. What was the effect of using the Obama 2008 vote as an indicator to draw CD 1 and CD 12 in North Carolina? It is problematic and unusual to choose a single election with a Black candidate as an indicator of partisan performance. The reason that one wants to avoid using only one election in which one of the candidates is Black candidate in order to determine the partisanship of the vote is that it is difficult to infer whether the vote for that candidate was based on race or party. The relevant question is what is the effect of one of these factors (race or party) controlling for the other on the likelihood that an individual voter was included in either CD 1 or CD 12.

14. My initial report revealed that the effect of race controlling for party was substantial and much larger than the effect of party given race on the likelihood that an individual was included in CDs 1 or 12.

15. Further analysis of VTD level data reveals that the Obama vote is very highly correlated with Black Registration, and that analysis of Census data would have masked that association. Dr. Hofeller notes that the increase in TBVAP in CD 12 is nearly identical to the increase in 2008 vote for Obama (see his paragraph 63).

16. Table 1 presents the correlations between percent Black VAP or percent White VAP and percent vote for Obama in 2008. Statewide, the correlation between Black VAP and Obama vote is .60. Obama vote is correlated with Census racial data, but the correlation is not very high.

5

17. Table 1 also presents the correlations between percent Black Registration or percent White Registration and percent vote for Obama in 2008. Statewide, the correlation between Black VAP and Obama vote is very high, .80.

18. In this particular circumstance, then, registration data reflecting race are a stronger correlate with Obama 2008 Vote than are Census data. Specifically, Black and White percent of voting age population in Census data are more weakly correlated with Obama vote than are Black and White Percent of Registered Voters in the State of North Carolina. If one were to look only at the association between Census data and Obama vote in North Carolina, then the effect on Black registered voters of using the Obama vote as an indicator in districting would be obscured.

19. The correlations between Black (or White) Registration and the Obama vote are particularly high in CDs 1 and 12. I further divided the VTDs in the state into those VTDs that are or were in new or previous CD 1, new or previous CD 12, and all other VTDs. The correlations between Black (or White) Registration and the Obama vote are .82 (or -.87 for Whites) in CD 1 and .92 (or -.93 for Whites) in CD 12. These are extremely high correlations. In the VTDs in CD 12, the correlation between the Obama vote and Black Registration is approaching 1. The Obama vote, then, is an extremely strong positive indicator of the location of Black registered voters in the areas around CDs 1 and 12. It is extremely strong negative indicator of the location of White registered voters in the areas around CDs 1 and 12.

6

20. Thus, Dr. Hofeller's statement that he only used the Obama vote to draw congressional districts does not undermine the conclusion that race predominated over party as a factor in drawing CDs 1 and 12. Whatever indicator or indicators were used by the map drawers, the measures had the effect of making Black registered voters of each partisan group much more likely to be included in CDs 1 and 12 than White registered voters of the same partisan group. And those indicators had relatively little effect on making Democratic registered voters of each racial group more likely to be included in a district than Republican registered voters of that same racial group.

C. Methodology for assessing racial and partisan patterns

21. A central question is whether race or party was the predominant factor in explaining or predicting which voters were included in CDs 1 or 12. In order to make this determination, one wants to gauge the effect of race controlling for party and party controlling for race. Otherwise, the vote for a candidate who is, say, a Democrat and Black may be interpreted as either an indicator of Democratic vote or of Black vote.

22. The methodology that I employed addresses that question in three steps. First, I ascertained the extent to which race of the registrant predicts the likelihood of being included in CD 1 or CD 12, holding constant the party of the registrant. The

7

effect of race given party equals the difference between the likelihood that a Black voter of a given party is included in a district and the likelihood that a White voter of that same party is included in that district. Second, I ascertained the extent to which party of the registrant predicts the likelihood of being included in CD 1 or CD 12, holding constant the race of the registrant. The effect of party given race equals the difference between the likelihood that a Democrat of a given race is included in a district and the likelihood that a Republican of that same race is included in that district. Third, I compared the effect of race given party with the effect of party given race. I examined the relationship between race and party on the likelihood that different types of registered voters are included in CD 1 or CD 12. This approach is suggested elsewhere in the literature on racial voting, such as Gary King, *A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data*, Princeton University Press: Princeton, NJ, 1997, pages 12-14 generally and Chapter 10, on registration specifically. Dr. Hofeller is critical of this approach (e.g., paragraphs 27, 33, and 52).

1. General Criticisms

23. Dr. Hofeller states (paragraph 27) that the analysis offered shows nothing more than that there is higher Black Voting Age Population in the areas moved into CDs 1 and 12 than then areas moved out. In fact, my analysis goes further than that, as it estimates the effect of race controlling for party and party controlling for race. The simple Census data only state whether there are more Blacks or more Whites in CD1

8

or CD12, not whether the increase in Black population was due to an increase in Democrats who happened to be Black or an increase in Blacks across all party groups. My analysis showed that it was the latter.

24. Dr. Hofeller suggests that a better approach would be to look at the relationship between Census demographic data and the vote for Obama in 2008. (Paragraph 55) He never states what sort of analysis exactly is to be performed or how those data could be used to separate the effects of race and party in estimating the likelihood of inclusion in CD 1 or CD 12.

25. He offers no such analysis of the VTD-level data. He offers no assessment of the likelihood that a Black or White voter of a given party was included in CDs 1 or 12. He offers no assessment of the likelihood that a Democrat or Republican of a given race was included in CDs 1 or 12.

2. Use of Registration Data

26. Dr. Hofeller questions the use of registration data to perform this analysis, rather than election results. (paragraphs 33 and 55)

27. The unique advantage of registration data in this particular circumstance is that it allows us to measure separately the effect of party given race and the effect of race given party on the likelihood that an individual is included in CD 1 or CD 12. North

9

Carolina is one of a handful of states that lists race and party on the voter

registration lists. By counting the numbers of White and Black Democrats, White

and Black Republicans, and White and Black Unaffiliated registrations we can

estimate the effect of race given party and party given race. Those estimates were

offered in my initial report. (See Tables 9 and 10 in that report.)

28. The individual level data allow analysis of the question at hand without

resorting to ecological regression, ecological inference or other more complicated

methods.[1] My original analysis estimated the effect of race controlling for party and

of party controlling for race using data on individual registered voters in the State of

North Carolina and in the areas of the districts in question.

29. Dr. Hofeller offers no alternative methodology or analyses using aggregate

Census and election data, such as at the level of the VTD, to address this matter.

30. Dr. Hofeller suggests, but offers no evidence, that registration is not tightly

related to election results. (Hofeller, paragraph 33)

31. Registration is highly correlated with actual election results in the State of North

Carolina. The correlation between Democratic share of party Registration and the

Obama Vote is .78. The correlations were even higher with respect to the other

---

[1] See Gary King, *A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data*, Princeton University Press: Princeton, NJ, 1997, especially Chapters 1 and 10.

Exhibit 1 - Ansolabehere Report

statewide elections in 2008. The correlation between Democratic share of party

Registration and the Democratic share of vote for Governor in 2008 is .90, and the

correlation Democratic share of party Registration and the Democratic share of vote

for United States Senate in 2008 is .83.[2]   These correlations reveal that

registration is in fact a strong predictor of electorate choice in the State of North

Carolina. It is further worth noting that the Obama vote in 2008 has the weakest

correlation with party registration of the three statewide elections that year,

suggesting that it may have been the least useful of the three elections to use as a

pure indicator of party. And, the correlation between Black registration and the

Obama vote is slightly stronger (.80) than the correlation between Democratic

registration and Obama vote (.78).

32. Party registration is itself an electoral choice in the State of North Carolina.

Party registration in the State of North Carolina restricts in which party's primary a

person can vote.

33. As demonstrated in Table 1, Black Registration, not Black VAP, is a much

stronger correlate of the Obama vote. Given Dr. Hofeller's claim that the Obama vote

is the relevant indicator, the strength of correlation of Black Registration suggests

that the analysis of registration is highly informative of voting behavior, and more

indicative of the electoral effects on Black voters than would be an analysis of the

association of Obama vote with Black VAP. Hence, I conclude that analysis of

---

[2] Correlations are weighted correlations, and VTDs are weighted by the total number of presidential ballots in 2008.

11

registration data is highly relevant to understanding the effects of the new CDs 1
and 12 on Black voters. And, the analysis in my original report revealed that race
controlling for party is a much stronger indicator of inclusion in those CDs than is
party controlling for race.

3. Areas of Analysis

34. I offer two separate analyses of the target areas or populations for the location
of CDs 1 and 12. One such analysis examines all registered voters in the counties in
which the CDs are located – called the envelope of counties. The other analysis
examines sets of VTDs that were in either new CD 1 or previous CD 1 (or new CD 12
or previous CD 12).

35. Dr. Hofeller questions my use of the counties in which CDs are located and
states that such a choice is highly unusual. (paragraph 52)

36. Analysis of racial voting patterns at the county level and of the counties in which
a district is situated is quite common in voting rights cases. The wide use of
counties in performing ecological regressions informed my decision to use counties
as a target area. Other expert reports in cases concerning the 2011 North Carolina
redistricting, including a report filed by Defendants' expert in the state court case,
also examine county-level racial voting data to assess the likely effects of the
districts. See the reports of Thomas Brunell, "Report on Racially Polarized Voting in

Exhibit 1 - Ansolabehere Report

North Carolina," June 14, 2011. 11 CVS 16896, 11 CVS 16940, and Ray Block, Jr.,

"Polarized Voting in 2006, 2008, and 2010 in North Carolina State Legislative

Contests," Case 1:13-cv-00949-WO-JEP. Filed 1/17/14.

37. Crossing of county lines is sometimes used as an indicator of respect for natural

or other political geographies in the process of drawing lines. Hence, counties are

sometimes treated as a relevant unit of analysis in understanding the locus of

districts.

38. Other researchers have used VTDs in and neighboring a district as the target

areas for the analysis of the racial effects of a districting plan. See the report of Gary

King and Benjamin Schneer to the Arizona Independent Redistricting Commission;

Gary King and Benjamin Schneer, "Analysis of the Arizona Independent Redistricting

Commission Congressional Map" http://gking-projects.iq.harvard.edu/AZ-

DOJ/az_report_cd.pdf.

D. District Population Growth

39. Dr. Hofeller states that, in addition to partisanship and preclearance, an

important policy goal of the legislature was guarding against the underpopulation of

CD 1 in the future. (Paragraph 71.)

Exhibit 1 - Ansolabehere Report

40. Dr. Hofeller states that CD 1 was moved away from slow growing rural counties and into urban areas in order to create a district that would likely retain its population over the coming decade. He discusses the rural counties in his rebuttal report. (Paragraphs 20 and 51)   However, he does not state what data or population forecasts were used for the district in 2020. He does not state the process for deciding which urban areas (especially which VTDs) to *include* in CD 1.

41. To assess the claim that the areas added to CD 1 were included primarily to counteract population declines, and were not racially motivated, I examined the changes to CD 1 in the City of Durham and County of Durham. CD 1 in the 2001-2011 map did not include any part of the City or County of Durham. New CD 1 includes 159,691 persons from this county, which accounts for 21.8% of the population of the New CD 1.

42. Population growth data for the VTDs are not available in the North Carolina State Legislature's Redistricting website. Population and registration counts by race, however, are available at that website. I analyzed those data to see if the Voting Age Population and registered voters in the portions of the City and County of Durham that were included in CD 1 were disproportionately Black.

43. Table 2 presents the racial composition of the City of Durham and the County of Durham and the racial composition of the portions of these jurisdictions that were added to CD 1. Each cell presents the number of persons in that category. In the

14

City of Durham, for example, 69,454 persons of Voting Age are Black alone, and the VTDs in the City of Durham that were included in CD 1 contain 55,265 persons who are Black alone.

44. Comparison of the percent of Blacks and percent of Whites who were included in CD 1 from the City of Durham and the County of Durham reveals that Blacks in these jurisdictions were disproportionately likely to be added to CD 1. The majority of Whites in these jurisdictions were included in other CDs.

45. Using the data in Table 2, one can calculate the percent of a given group in the City or County of Durham that was included in CD 1. For example 79.6 percent (55,265/69,454) of all people in the City of Durham who considered themselves to be Black (and no other race) were included in CD 1. Similar calculations can be made for each racial group and for Voting Age Population and Registered Voters.

46. In the City of Durham, 79.6 percent of the Black Voting Age Population was included in CD 1. 48.4 percent of the White Voting Age Population was included in CD 1.

47. In the City of Durham, 80.5 percent of Black Registered Voters were included in CD 1. 44.2 percent of White Registered Voters were included in CD 1.

15

48. In the County of Durham, 77.6 percent of the Black Voting Age Population was included in CD 1. 43.3 percent of the White Voting Age Population was included in CD 1.

49. In the County of Durham, 78.5 percent of Black Registered Voters were included in CD 1. 38.9 percent of White Registered Voters that were included in CD 1.

50. The boundary of CD 1 in the City and County of Durham was disproportionately more likely to incorporate Blacks than Whites. Black registered voters in the County of Durham were twice as likely as Whites to be included in CD 1.

E. Population Equality

51. Dr. Hofeller states that equalizing population was one of the four major policy objectives of the State Legislature in the construction of new CDs 1 and 12. This is a legal requirement under the United States Constitution as interpreted by the Supreme Court of the United States.

52. In the case of CD 12, this requirement did not appear to exert much of a constraint on the extent to which the State Legislature shifted populations among districts in the process of drawing the Rucho-Lewis map.

16

53. Previous CD 12 needed few changes in order to equalize population. According to the 2010 Census enumeration statistics provided by the North Carolina Legislative Redistricting site, the district had only 2,847 more persons than the ideal district of 733,500. In other words, prior to redistricting, CD 12 needed to have only 2,847 people removed from the district in order to achieve the equal population objective.

54. The Rucho-Lews map, however, added 239,064 people to CD 12 and removed 241,911 people from CD 12. And, the populations added to new CD 12 were disproportionately Black compared with the areas removed from previous CD 12. Of the 239,064 people added to CD 12, 105,132 people (44%) were Black. Of the 241,911 people removed from CD 12, 56,046 people (23%) were Black. In other words, the changes in CD 12 from the 2001-2011 map to the Rucho-Lewis map increased the number of Black persons in CD 12 by 49,086 (i.e., 105,132 minus 56,046). The change in the Black population far surpasses the changes in the district needed to maintain equal population.

17

Table 1. Correlation Between Obama Share of Two Party Vote and Racial Composition of VAP and Registered Voters in VTDs				
	Entire State	CD 1	CD12	Districts Other than CD 1 and CD 12
Black VAP	+.60	+.47	+.65	+.46
White VAP	-.64	-.54	-.69	-.50
Black R.V.	+.80	+.82	+.92	+.69
White R.V.	-.81	-.87	-.93	-.69

Table 2. Racial Composition of Areas in City and County of Durham				
City of Durham				
	Voting Age Population		Registered Voters	
	All Areas	In CD 1	All Areas	In CD 1
Black Alone	69,454	55,265	62,768	50,570
White Alone	80,598	39,010	75,664	33,442
Total	176,435	111,769	152,297	92,492
County of Durham				
	Voting Age Population		Registered Voters	
	All Areas	In CD 1	All Areas	In CD 1
Black Alone	75,440	58,560	69,542	54,610
White Alone	103,053	44,624	94,725	36,867
Total	207,266	121,895	179,309	100,189

Exhibit 1 - Ansolabehere Report

Stephen Ansolabehere

January 29, 2014

Cambridge, Massachusetts

IN THE UNITED STATES DISTRICT COURT

FOR THE MIDDLE DISTRICT OF NORTH CAROLINA

NO. 1:13-CV-00949

DAVID HARRIS; CHRISTINE BOWSER; and SAMUEL LOVE,
 	
     Plaintiffs,
 	
     v.
 	
PATRICK MCCRORY, in his capacity as Governor of North Carolina; NORTH CAROLINA STATE BOARD OF ELECTIONS; and JOSHUA HOWARD, in his capacity as Chairman of the North Carolina State Board of Elections,
 	
     Defendants.
	SECOND DECLARATION OF JOHN M. DEVANEY IN SUPPORT OF PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION

I, John M. Devaney, being duly sworn according to law, upon my oath, declare and say as follows:

1. I am an attorney representing the plaintiffs in this case. I am over the age of 21 years and competent to testify herein. Unless otherwise stated, I have personal knowledge of the matters stated herein and would so testify if called to do so.

2. Attached As Exhibit 1 is a true and correct copy of the Second Affidavit of David W. Peterson, Ph.D, dated January 4, 2013, and submitted in *Dickson v. Rucho et al.*, Civil Action No. 11 CVS 16896 (Wake County Superior Court), ,

3. Attached as Exhibit 2 is a true and correct copy of excerpts of the deposition of Thomas Hofeller, Ph.D., taken on June 28, 2012, in *Dickson v. Rucho et al.*, Civil Action No. 11 CVS 16896 (Wake County Superior Court)

Exhibit 2

Second Declaration of John M. Devaney

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

EXECUTED at Washington, DC, on February 3rd, 2014.

/s/ John M. Devaney
JOHN M. DEVANEY

CERTIFICATE OF SERVICE

I hereby certify that on this date I served a copy of the foregoing **SECOND DECLARATION OF JOHN M. DEVANEY IN SUPPORT OF PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION** to be made by electronic filing with the Clerk of the Court using the CM/ECF System, which will send a Notice of Electronic Filing to all parties with an e-mail address of record, who have appeared and consent to electronic service in this action.

This the 3rd day of February, 2014.

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

STATE OF NORTH CAROLINA

COUNTY OF WAKE

IN THE GENERAL COURT OF JUSTICE

SUPERIOR COURT DIVISION

11 CVS 16896

11 CVS 16940

MARGARET DICKSON, *et al.*,

Plaintiffs,

v.

ROBERT RUCHO, in his official capacity
only as the Chairman of the North
Carolina Senate Redistricting
Committee, *et al.*,

Defendants.

_____

NORTH CAROLINA STATE CONFERENCE

OF BRANCHES OF THE NAACP et al.,

Plaintiffs,

v.

STATE OF NORTH CAROLINA et al.,

Defendants.

**SECOND AFFIDAVIT OF DAVID W.
PETERSON, Ph.D.**

I, David Peterson, being first duly sworn, depose and say:

1.   I am over 18 years of age, legally competent to give this affidavit and have personal knowledge of the facts set forth in this affidavit. I am a statistician retained by counsel for Plaintiffs to assist with statistical aspects of this case. For more than twenty years I taught statistical theory and applications at Duke University, first as a member of the business school faculty and later as a member of the statistics faculty. During that time I also taught statistics courses in Duke's department of health administration, school of forestry and the law school. I am co-author of the book *Use of Statistics in Equal Employment Opportunity Litigation*, and author or co-author of numerous articles in professional journals dealing with the use of statistics in litigation. One of these articles addresses uses and misuses of scientific evidence in court, and another critiques the Federal Judicial Center's *Reference Manual on Scientific Evidence*. I am the author of a book outlining the elements of forensic decision analysis, a general method for determining empirically the reasons that past decisions were made the way they were. I have advised hundreds of legal teams, both plaintiff and defendant, on the use of statistical evidence. The U.S. Supreme Court has cited my work favorably on several occasions. My resumé is attached as Appendix A. For the work leading up to and including the preparation of this report, I am being paid $6,000. The cases in which I have testified recently are listed in Appendix B.

Charge

2.   I am asked by counsel for Plaintiffs in this matter to verify and interpret the results of a "Segment Analysis"[1] of North Carolina's 12th Congressional Voting District defined by "Rucho-Lewis Congress 3"[2], an analysis performed by staff at the Southern Coalition for Social Justice under the direction of Mr. Chris Ketchie, designed to test whether the boundary of that district appears to have been chosen more on the basis of racial considerations than on political considerations.

---

[1] Segment Analysis is described in Peterson, David W., "On Forensic Decision Analysis," *Journal of Forensic Economics*, Vol. XVIII, No. 1, Winter 2005, pp. 11-62, and also in Peterson, David W., *Why Did They Do That? An Introduction to Forensic Decision Analysis*, Lulu Press, 2007. Segment Analysis was used by defendants in the North Carolina redistricting litigation arising from the 1990 census (*Hunt, Governor of North Carolina, et al. v. Cromartie et al.*, 526 U.S. 541 (1999) and *Easley, Governor of North Carolina, v. Cromartie, et al.*, 532 U.S. 234 (2001)).

[2] "Rucho-Lewis Congress 3" was enacted as Session Law 2011-403 by the North Carolina General Assembly on July 28th, 2011.

2

Exhibit 1 to Second Declaration of John M. Devaney

Conclusions

3. I reviewed the steps undertaken in the Segment Analysis and determined that the calculations were correctly done. The analysis indicates that racial considerations better account for the boundary definition of the 12th NC Congressional Voting District than do party affiliation considerations. There is no indication that party affiliation dominated racial considerations.

Sources

4. The information on which my opinion is based is primarily District_12.csv, a data file created and conveyed to me by Chris Ketchie on November 28, 2011. The file was created by a computer script originally written by Damian Maddelena, but modified by me just before Mr. Ketchie used it to create District_12.csv. The information contained in the data file is a table, each row of which pertains to a segment of the boundary of the 12th District, and indicates, among other things, the fraction of the people residing in the precinct just outside the 12th District who are black, as well as the fraction of the population who are democrats. The analogous information is provided for people living in the neighboring precinct just inside the 12th District. The pertinent parts of the file are printed out in Appendix C. I also rely on 23 maps provided to me by Mr. Ketchie, which I used to identify instances in which the precincts involved in this study touch one another at just a single point.

Review

5. I have studied the data and computer program mentioned above, discussed them at length with Mr. Ketchie, and verified a sample of the calculations. I believe they properly execute the studies described below.

Segment Analysis Rationale

6. Segment Analysis rests on the observation that if the boundary of a voting district is chosen with the object of encompassing large numbers of black residents, then at least some portion of that boundary must separate a geographic region with a large representation of black residents from a region with a smaller representation, the region with the larger representation being included within the voting district. The analogous observation holds with respect to political affiliation – a voting district defined with the object of collecting democrats within must

3

Exhibit 1 to Second Declaration of John M. Devaney

on at least some portion of its boundary separate a geographic region with a large representation of democrats from one with a smaller representation, the area with the larger representation being inside the voting district. Segment analysis breaks down the border of a voting district into many pieces, and examines whether, based on the race and political behavior of residents just inside and outside each segment, the overall pattern suggests that, as between race and political affiliation, one consideration dominated the other in the process that defined the voting district.

Analysis

7. The boundary of District 12 was divided into the segments corresponding to the precincts inside and out that form its border. Each such segment separates a precinct inside the district from a precinct outside the district. Map 1 depicts the precincts involved in this process. For each segment, we noted whether the proportion of residents of the inside precinct who are black is greater than the proportion of residents of the outside precinct who are black. We called segments for which this relationship holds "Type B". We also, for each segment, noted whether the proportion of residents of the inside precinct who are democrats is greater than the proportion of residents of the outside precinct who are democrats. We called segments for which this relationship holds "Type D".[3]

8. If a segment is of Type B, it lends support to the proposition that it was chosen at least in part because it serves to aggregate black people into the 12th District. Similarly, a Type D segment lends support to the proposition that it was chosen at least in part because it serves to aggregate democrats into the District. A segment that is both of Type B and of Type D, lends support to both propositions, and therefore is of no help in distinguishing which consideration may have dominated. Likewise, a segment that is neither of Type B nor of Type D reveals nothing about which of the two propositions may have dominated in the choice of that segment by the legislature.

9. The remaining segments are either a) Type B and not Type D or else b) Type D and not Type B. A segment of the first sort supports the proposition (the Race Hypothesis) that it

---

[3] Included in the study are all segments having positive length; all segments of zero length (which occur where an inside precinct touches an outside precinct at only a single point) are excluded.

4

Exhibit 1 to Second Declaration of John M. Devaney

was chosen at least in part because it serves to collect blacks into the 12th District, and it militates against the proposition (the Political Hypothesis) that the segment was chosen because it serves to collect democrats into the District. We call such a segment a Race (or Type R) segment, because it supports the Race Hypothesis over the Political Hypothesis.

10. A segment of the second sort (Type D and not Type B) has an analogous interpretation. Such a segment supports the proposition (the Political Hypothesis) that it was chosen at least in part because it serves to collect democrats into the 12th District, and it militates against the proposition (the Race Hypothesis) that the segment was chosen because it serves to collect blacks into the District. We call such a segment a Party (or Type P) segment.

11. In all, there are 330 segments to the border of the 12th District.[4] But whether a given segment is of Type R, of Type P, or of neither type depends on just how one measures the racial composition of residents in a precinct, as well as how one measures the party preferences of a precinct's residents.

12. We used three different measures of the racial composition of the residents of each precinct:
   a. the proportion of people living in the precinct who, in the 2010 US Census, reported their race as black or partially black;
   b. the proportion of the people of voting age living in the precinct who, in the 2010 US Census, reported their race as black or partially black; and
   c. the proportion of registered voters living in the precinct who are registered as blacks.

13. We used four different measures of party preference for the residents of each precinct:
   a. the proportion of registered voters living in the district who are registered as democrats;

---

[4] While these 330 segments encompass very nearly the entire boundary of the 12th District, there are a few gaps. These occur when the district line cuts through a precinct rather than following the precinct boundary. These gaps could not be included in the analysis because data on voting behavior are not available at the sub-precinct level.

5

b. the proportion of people living in the district and voting for Governor in 2008 who voted for the democratic gubernatorial candidate;

c. the proportion of people living in the district and voting for President in 2008 who voted for the democratic presidential candidate; and

d. the proportion of people living in the district and voting for US Senator in 2010 who voted for the democratic senatorial candidate.

14. We used each of the three measures of race cited in ¶12 above in conjunction with each of the four measures of party preference cited in ¶13 above, producing a total of twelve different segment analyses of the boundary of District 12. The results are summarized in Table 1 and graphed in Figure 1.

Table 1. Tallies of District 12 Segments by Race and Party Types

| | Registered Democrat | | Voted for Democrat: | | | | | |
| | | | 2008 Governor | | 2008 President | | 2010 US Senate | |
	Race	Party	Race	Party	Race	Party	Race	Party
Black Population	6	8	5	7	7	4	10	6
Black Voting Age Population	7	7	6	6	8	3	11	5
Black Registered Voters	4	6	4	6	6	3	11	7

Source: District_12 DWP Edit.xlsx

15. In four of the twelve studies the number of segments supporting the Political Hypothesis exceeds the number of segments supporting the Race Hypothesis. There are two studies in which there are equal numbers of Type R and Type P segments. In the other six studies, there is more support for the Race Hypothesis than for the Political Hypothesis, and in each of these six, the imbalance is more pronounced than in any of the four studies favoring the Political Hypothesis.

16. While the classification of a segment as Type R or Type P depends on just how one characterizes its precincts' racial and political populations, there are just two segments which are unequivocal across all twelve studies – one of these is invariably of Type R, the other of Type P.

6

17. The studies above may be compared with a similar study undertaken of North Carolina's 12th Congressional District in the wake of the 1990 census and the ensuing litigation cited in Footnote 1 above. In that case, the dozen studies analogous to those depicted in Table 1 resulted in seven instances favoring the Political Hypothesis, three favoring the Race Hypothesis, and two ties. Thus, while this earlier study on balance favored the Political Hypothesis, the results in Table 1, in contrast, favor the Race Hypothesis.

Conclusions

18. I reviewed the steps undertaken in the Segment Analysis and determined that the calculations were correctly done. The analysis indicates that racial considerations better account for the boundary definition of the 12th NC Congressional Voting District than do party affiliation considerations. There is no indication that party affiliation dominated racial considerations.

This, the _4th_ day of _January_ , 2012.

David Peterson
David Peterson

COUNTY OF _Bureau_
STATE OF _Illinois_

I, _Kathy Jean Hermeyer_ , a Notary Public of the County and State aforesaid, hereby certify that _David W. Peterson_ personally known to me to be the affiant in the foregoing affidavit, personally appeared before me this day and having been by me duly sworn deposes and says that the facts set forth in the above affidavit are true and correct.

Witness my hand and official seal this the _4th_ day of _January_ , _2012_ .

(SEAL)

OFFICIAL SEAL
KATHY JEAN HERMEYER
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 07/30/2012
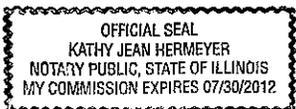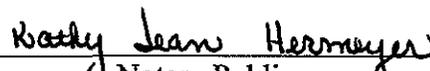
Kathy Jean Hermeyer
Notary Public

My Commission expires:

_07_ / _30_ / _2012_ .

7

Map 1.
NC 12th Congressional District
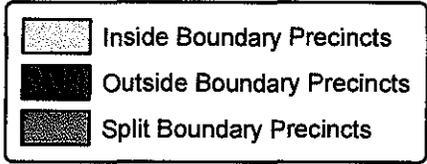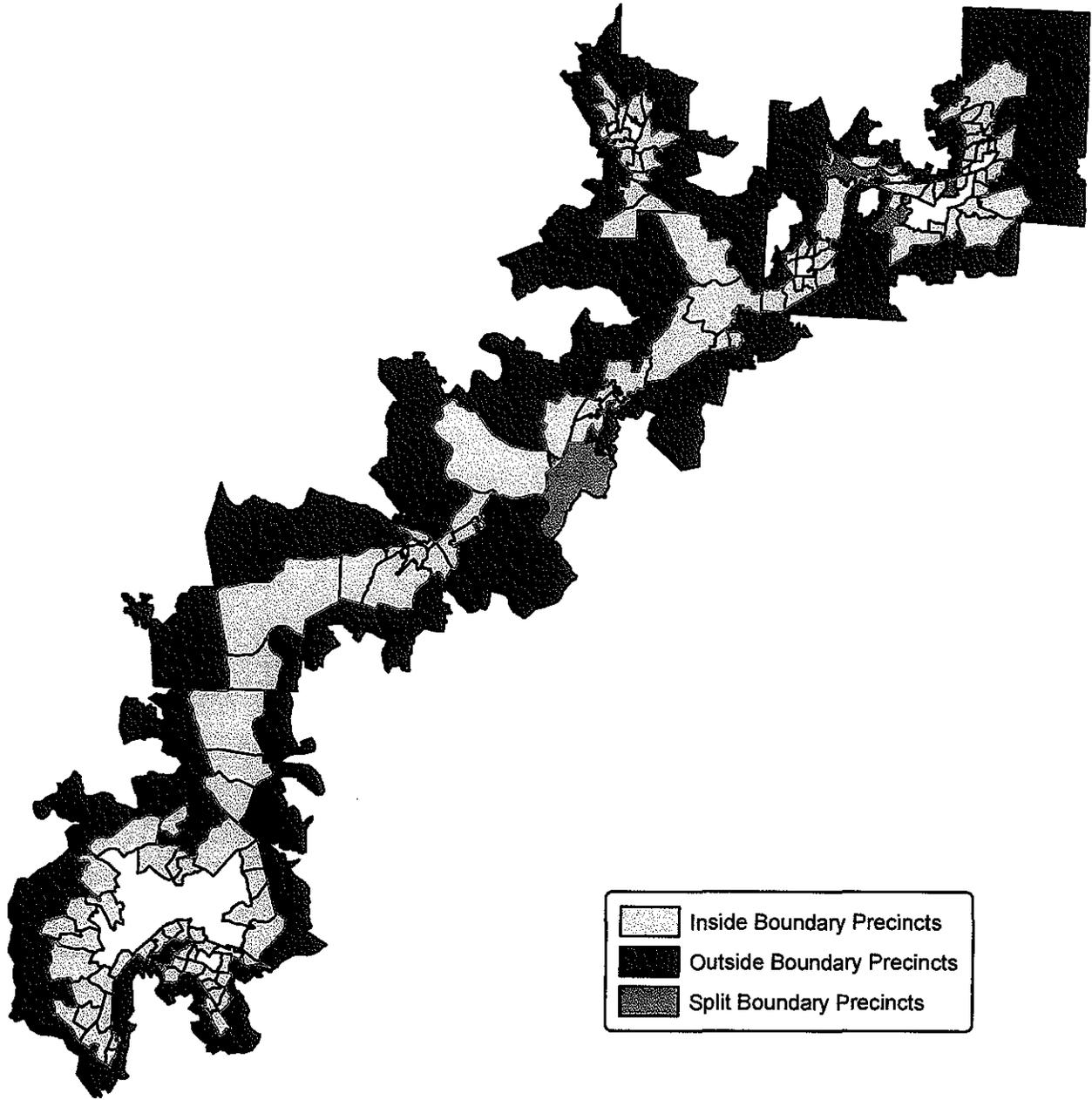
Legend:
- Inside Boundary Precincts
- Outside Boundary Precincts
- Split Boundary Precincts

0   10   20   40   60
Miles

Exhibit I to Second Declaration of John M. Devaney

DAVID WEST PETERSON

1942 Rock Rest Road   Home: 919-542-6937
Pittsboro, North Carolina 27312   Office: same

Higher Education:

        B.S., University of Wisconsin at Madison, 1962
        M.S., Stanford University, 1963
        Ph.D., Stanford University, 1965, all in Electrical Engineering

Employment History:

1960	Engineering Trainee, General Electric Company
1961-62	Research Assistant, Computer Laboratory, Department of Electrical Engineering, University of Wisconsin
1962-63	Member, Technical Staff, Hughes Aircraft Company
1963-65	Research Assistant, Systems Laboratory, Stanford University
1965-67	Mathematician and Hybrid Simulation Project Officer, U.S. Army Electronics Command, Fort Monmouth, N.J.
1967-70	Assistant Professor of Quantitative Methods, Northwestern University Graduate School of Management
1970-73	Associate Professor of Managerial Economics and Decision Sciences, Northwestern University Graduate School of Management
1971-72	Research Fellow, International Institute of Management, Berlin
1973	Visiting Lecturer, Systems Engineering, University of Illinois at Chicago Circle (spring quarter)
1973-84	Professor, Graduate School of Business Administration, Duke University, Durham, N.C.
1979-2000	President, PRI Associates, Durham, N.C.
1982-86	Senior Lecturer, Duke Law School
1984-89	Adjunct Professor, Graduate School of Business Administration, Duke University, Durham, N.C.
1989-94	Adjunct Professor, Institute for Statistics and Decision Sciences, Duke University, Durham, N.C.
2000-02	Senior Vice President, Peopleclick, Inc., Raleigh, N.C.
2002-present	Independent Consultant

Various consulting activities undertaken for the U.S. Public Health Service, U.S. Army
Electronics Command, and numerous private corporations, law firms and governmental
agencies, largely on matters related to the use of statistics in litigation.

David W. Peterson

Languages:

> English (native)
> German (working knowledge)
> Some French, Russian and Mandarin

Professional Memberships:

> Institute for Electrical and Electronic Engineers
> The American Statistical Association

Professional Publications:

Technical articles published in internationally circulated journals, treating topics in the theory and application of mathematical modeling in areas such as radio propagation, control of economic systems, optimization of static and dynamic systems, statistical decision making, the measurement of employment opportunity equality, and the detection of computer code theft.

Professional Speaking Engagements:

Technical papers read at meetings of the IEEE Man, Systems and Cybernetics Group, the Econometric Society, The Institute for Management Sciences and the American Statistical Association. Many semi-technical engagements in the U.S., Europe and the Middle East, generally pertaining to mathematical modeling applications in management. Speaker at seminars for lawyers dealing with statistical applications in litigation.

General Background:

While at Stanford University I was involved in a project whose chief aim was to analyze radar return data to discriminate among different types of vehicles entering the atmosphere. Problems of primary concern in this project were data processing speed and discrimination accuracy.

While at Fort Monmouth I was involved in two major projects. The first was the construction and analysis of a mathematical model describing very-low-frequency electromagnetic propagation in the earth-atmosphere-ionosphere system, and another model for such propagation in the lithosphere.

The second major project on which I worked while at Fort Monmouth was the simulation of various helicopter fire control systems on a large scale hybrid computer. In this project I was responsible for the construction of a mathematical model of a fire control computer, for the stochastic subroutines associated with the simulation, and for various subroutines involving the generation of certain artificial images for the benefit of the pilot. The system simulated was comprehensive in that it included the pilot and a gunner (both of them live) and a cockpit with a

A - 2

visual display consisting of a television-scanned terrain belt on which were superimposed artificially-generated data relating target size and location to the trajectories of tracer rounds. The challenge in this task was to simulate the aircraft flight dynamics, the tracer round trajectories and the feel of the aircraft on the pilot and co-pilot controls, to within acceptable tolerances, subject to limitations on computer memory and computational speed.

At Northwestern I taught courses in mathematical programming, elementary probability and statistics, computer programming and applications, and optimal control to graduate students in management, attracting some students from economics, computer science and industrial engineering.

My early research interests were in establishing a logical-mathematical foundation for information theory, and the construction and analysis of dynamic econometric models. A year spent at the International Institute of Management in Berlin enabled me to bring to publishable form the results of several investigations in these areas, as well as to make personal and professional acquaintances in several European and Middle Eastern communities.

While at Duke my activities in the early years were directed toward improving the quality and volume of research of junior faculty, to developing an expanded Ph.D. program, to revising the MBA curriculum, and to exploring and developing bases on which Graduate School of Business Administration faculty and students can interact with faculty and administrators in various other departments. I developed a special interest in the application of statistical methods to the measurement of the equality with which an employer extends employment opportunities to employees of differing age, sex or ethnicity. These activities led to several publications, speaking engagements and consulting assignments, and to the formation of PRI Associates.

PRI Associates' main business was statistical consultation, though it also designed, developed and sold software that employers used to help manage their affirmative action activities. Our consultations usually were with attorneys involved in litigation, and the subject matter spanned a wide variety of issues, including political redistricting, census-taking, employment discrimination and high-tech intellectual property disputes.

In August 2000 I sold PRI Associates to PeopleClick, Inc. Leaving PeopleClick in 2002, I have since consulted as a sole proprietor with a variety of clients, aided on occasion by an informal network of colleagues.

A - 3

Exhibit 1 to Second Declaration of John M. Devaney

David W. Peterson

Other Work Experience:

     a.   the formulation of a plan for a national health data information center, and for its process of creation

     b.   the design of a computer-based inventory management system for a $50M per year mail-order firm

     c.   the provision of statistical advice to researchers studying the effects on costs and services of a merger of nine hospitals in Arizona

     d.   the provision of criticism, advice and encouragement to researchers establishing a methodology for evaluating the effects of different types of care extended to elderly Americans

     e.   consultation with legal teams on the structuring of statistical data presented at judicial proceedings involving employment discrimination, jury selection, anti-trust damages, political redistricting processes, census taking, and high tech intellectual property issues

     f.   formation of PRI Associates, Inc., providing statistical consultation services on matters pertaining to the use of statistical methods in litigation, and on matters related to software development

Bibliography:

1.   Ilt–Inverse LaPlace Transform, IBM 1620 Digital Computer Program, IBM Program Information Department Library File Number 6.0.164, September, 1964.

2.   Discriminant Functions – Properties, Classes, and Computational Techniques, Ph.D. thesis, Rept. SU-SEL-021, Technical Report 6761-2, Stanford Electronics Laboratories, Stanford, California, April 1965.

3.   A Theorem on Decision Boundaries, *Proceedings of the 12th Annual Conference of Army Mathematicians*, Dartmouth College, Hanover, New Hampshire, June 22-23, 1966 with K. A. Belser.

4.   A Method of Finding Linear Discriminant Functions for a Class of Performance Criteria, *IEEE Transactions on Information Theory*, IT-12, No. 3, July, 1966, pp. 380-387, with R. L. Mattson.

5.   A Theorem on Single Sample Confidence Intervals, 13th Annual Conference of Army Mathematicians, Fort Monmouth, New Jersey, June 7-8, 1967. Also, *Proceedings of the IEEE*, Vol. 55, No. 9, September 1967, pp. 1637-1638, (Correspondence).

A - 4

Exhibit 1 to Second Declaration of John M. Devaney

David W. Peterson

6. The Mathematics of Information – A Critique, paper read at the U.S. Army Electronics Command Advanced Planning Briefing and Technical Symposium, Fort Monmouth, New Jersey, March 7, 1968.

7. A Model for Electromagnetic Propagation in the Lithosphere, *Proceedings of the IEEE*, Vol. 56, No. 5, May 1968, pp. 799-804, with F. H. Schwering and S. B. Levin.

8. A Proposed Method for Predicting the Phase Behavior of a VLF Radio Signal, *Journal of Atmospheric and Terrestrial Physics*, Vol. 31, 1969, pp. 225-232.

9. Using the Maximum Principle and a Hybrid Computer for Production Planning, with Robert R. Gann, *Proceedings of the American Institute for Decision Sciences Meeting*, New Orleans, Louisiana, October 1969.

10. Some Convergence Properties of a Nearest Neighbor Decision Rule, Record of the IEEE Systems Science and Cybernetics Conference, October, 1968, San Francisco, also *IEEE Transactions on Information Theory*, Vol. IT-16, No. 1, January 1970, pp. 26-31.

11. A Stabilizing Transformation for Numerical Solution of Maximum Principle Problems, with R. Gann, *IEEE Transactions on Automatic Control* (correspondence), Vol. 15, No. 6, December 1970, pp. 686-687.

12. A Sufficient Maximum Principle, *IEEE Transactions on Automatic Control* (correspondence), February 1971, Vol. 16, No. 1, pp. 85-86.

13. Optimal Control and Monetary Policy, with E. M. Lerner, *International Economic Review*, Vol. 12, No. 2, June 1971.

14. The Response of Prices and Income to Monetary Policy: An Analysis Based Upon a Differential Phillips Curve, with E. M. Lerner and E. J. Lusk, *Journal of Political Economy*, Vol. 19, No. 4, July/August 1971, pp. 857-866.

15. Equitability in Multi-Agent Dynamic Systems: The Case of Two Agents and Four States, presented at the European Econometric Society Meeting, Barcelona, September 1971, published in revised form in the *Nigerian Journal of Quantitative Economics*, Vol. 1, No. 1, March 1975, pp. 33-58.

16. Equitability in Multi-Agent Dynamic Systems: The Case of m Agents and nm States, *Proceedings of the Joint Conference on Major Systems*, Sponsored by IEEE Systems, Man and Cybernetics Group and by ORSA, Anaheim, California, October 1971.

17. Comments on "Economics of Information Systems," by Jacob Marschak, in *Frontiers of Quantitative Economics*, M. Intriligator, ed., North-Holland Publishing Company, Amsterdam, 1971, pp. 107-108.

Exhibit 1 to Second Declaration of John M. Devaney

David W. Peterson

18. The Economic Significance of Auxiliary Functions in Optimal Control, presented at the Econometric Society North American Meeting, August 1971, *International Economic Review*, Vol. 14, No. 1, February 1973, pp. 1-19.

19. A Review of Constraint Qualifications in Finite Dimensional Spaces, *SIAM Review*, Vol. 15, No. 3, July 1973, pp. 639-654.

20. Some Relationships Between Hierarchical Systems Theory and Certain Optimization Problems, with Y. M. I. Dirickx and L. P. Jennergren, presented at the IEEE Systems, Man and Cybernetics Group Conference, Washington, D. C., October 1972; *IEEE Transactions on Systems, Man and Cybernetics*, Fall 1973.

21. On Sensitivity in Optimal Control Problems, *Journal of Optimization Theory and Applications*, Vol. 13, No. 1, January 1974, pp. 56-73.

22. Toward a Mathematical Definition of Information, *Proceedings of the Sixth Annual Southeastern Symposium on System Theory*, February 1974.

23. On Dynamic Behavior of the Regulated Firm, with James Vander Weide, presented at the Econometric Society Winter Meetings, 1974, revised March 1975.

24. Transferring Ideas from Engineering to the Social Sciences, *Proceedings of the IEEE*, Vol. 63, No. 3, pp. 354-359, March 1975.

25. Trader-Commodity Parity Theorems, with D. Graham, P. Jennergren, and R. Weintraub, *Journal of Economic Theory*, Vol. 12, No. 3, June 1976.

26. A Note on the Optimal Investment Policy of the Regulated Firm, with J. H. Vander Weide, *Atlantic Economic Journal*, Vol. IV, No. 3, Fall 1976, pp. 51-55.

27. A Strategy which Maximizes the Geometric Mean Return on Portfolio Investments, with S. F. Maier and J. H. Vander Weide, *Management Science*, Vol. 23, No. 10, June 1977, pp. 1117-1123.

28. A Monte Carlo Investigation of Characteristics of Optimal Geometric Mean Portfolios, with Steven F. Maier and James H. Vander Weide, invited paper, presented at a joint session of the Econometric Society and the American Finance Association Winter Meeting, 1974, revised and published in the *Journal of Financial and Quantitative Analysis*, June 1977, pp. 215-233.

29. Quadraticity and Neutrality in Discrete Time Stochastic Linear Quadratic Control, with Carole Aldrich, *Automatica*, Vol. 13, 1977, pp. 307-312.

30. The Coordination of Short-Run Decision Making with Long-Range Planning, with D. Loughridge and W. Damon, *Omega*, Vol. 4, No. 6, 1977, pp. 1-12.

31. On the Estimation of the Racial and Sexual Composition of the Labor Force Available to an Employer, in *Perspectives on Availability*, Equal Employment Advisory Council, August 1978.

A - 6

Exhibit 1 to Second Declaration of John M. Devaney

David W. Peterson

32. A Review of Direct Sufficiency Conditions in Optimal Control Theory, with J. Zalkind, *International Journal of Control*, Vol. 28, No. 4, 1978, pp. 589-610.

33. An Analytic Framework for Evaluating Rolling Schedules, with K. Baker, *Management Science*, Vol. 25, No. 4, April 1979, pp. 341-351.

34. *Use of Statistics in Equal Employment Opportunity Litigation*, with Walter B. Connolly, Jr., New York Law Journal Seminars Press, February 1980 (1982, 1983, 1985, 1987, 1988, 1989, 1991, 1992, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2007).

35. Pitfalls in the Use of Regression Analysis for the Measurement of Equal Employment Opportunity, *Journal on Policy Analysis and Information Systems*, Vol. 5, No. 1, March 1981, pp. 43-65.

36. An Empirical Bayes Estimate of Market Risk, with S. F. Maier and J. H. Vander Weide, *Management Science*, Vol. 28, No. 7, July 1982, pp. 728-737.

37. Measurement Error, Regression and Equal Employment Opportunity, in *Statistical Evidence of Discrimination*, D. H. Kaye and M. Aickin, eds., Marcel Dekker, New York, 1986.

38. Measuring Pass-Fail Employment Test Impact Disparities, presented at the joint National Meeting of ORSA/TIMS, October 1982.

39. A Regression Specification Test Based on Observation Exchanges, presented at the American Statistical Association meetings, August 1984, Philadelphia, PA. Revised June 1985.

40. *Law and Contemporary Problems*, Vol. 46, Autumn 1983, No. 4, Special Editor for the Symposium on Statistical Inference in Litigation.

41. Data Acquisition and Analysis, in *Statistical Evidence in Litigation*, David W. Barnes and John Conley, Little, Brown, Boston 1986.

42. Trial by Regression: Detecting and Measuring Disparate Treatment in Employment Discrimination Litigation, presented at the American Statistical Association meetings, August 1986, Chicago, IL.

43. The Role of Experts in Software Infringement Cases, with John M. Conley, *Georgia Law Review*, Vol. 22, No. 2, Winter 1988, pp. 425-468. Reprinted in *Computer Law & Practice*, Vol. 5, No. 3, pp. 99-110 (Part 1) and Vol. 5, No. 4, pp. 147-153 (Part 2).

44. Court-Imposed Methodological Constraints: An Employment Discrimination Example, with John M. Conley, presented at the American Statistical Association meetings, August 6-9, 1990.

45. The Employment Discrimination Case of Bayes v. Fisher, presented at the Second International Conference on Forensic Statistics, Arizona State University, Tempe, AZ, May 19-21, 1993.

A - 7

David W. Peterson

46. When Ethical Systems Collide: The Social Scientist and the Adversary Process, with John M. Conley, in Kniffka, Hannes, *Recent Developments in Forensic Linguistics*, Peter Lang, Frankfurt am Main, 1996, pp. 345-358.

47. Review of Daniel L. Rubinfeld's Reference Guide on Multiple Regression in the Federal Judicial Center's 1994 Reference Manual on Scientific Evidence, *Jurimetrics*, Vol. 36, No. 2, Winter 1996, pp. 213-216.

48. Science of Gatekeeping: The Federal Judicial Center's New Reference Manual on Scientific Evidence, with John M. Conley, *North Carolina Law Review*, Vol. 74, No. 4, April 1996, pp. 1183-1223.

49. Pay Discrimination Models, *Journal of Forensic Economics*, 12(2), 1999, pp. 111-124.

50. Of Cherries, Fudge and Onions: Science and its Courtroom Perversions, with John M. Conley, *Law and Contemporary Problems*, Vol. 64, No. 4, Autumn 2001, pp. 213-240.

51. In Quest of the Perfect P-Value, *Journal of Forensic Economics*, 15(1), 2002, pp. 75-80.

52. Cohort Analysis: A Regression Plain and Fancy, *Journal of Forensic Economics*, 16(2), 2003, pp. 153-176. Correction, *JFE*, 18(2-3), 2005, p. 263. Reply to comment, *JFE*, 19(3), 2006, pp. 325-332.

53. On Forensic Decision Analysis, *Journal of Forensic Economics*, 18(1), 2005, pp. 11-62.

54. A Fresh Look at Pay Discrimination, *Chance*, Vol. 19, No. 2, Spring 2006.

55. *Why Did They Do That? An Introduction to Forensic Decision Analysis*, Lulu Press, Morrisville NC, 2007.

56. Putting Chance to Work: Reducing the Politics in Political Redistricting, *Chance*, Vol. 21, No. 1, 2008, pp. 22-26.

57. Review of *Statistics in the Law* by Joseph B. Kadane, *Journal of the American Statistical Association*, 104(486), June 2009, p. 868.

Newsletter Articles:

1. Measurement of Age Discrimination, *Personnel Research Report*, Vol. 1, No. 1, July 1981.

2. Measurement Error, Regression, and Equal Employment Opportunity, *Personnel Research Report*, Vol. 1, No. 2, October 1981.

3. Notes on Statistical Proof: Rebuttal and Cumulative Impact, *Personnel Research Report*, Vol. 1, No. 3, January 1982.

A - 8

Exhibit 1 to Second Declaration of John M. Devaney

David W. Peterson

4. Age Profiles and Workforce Reductions: Some Basic Relationships, *Personnel Research Report*, Vol. 2, No. 1, July 1982.

5. Statistical Models and Employer Discretion, *Personnel Research Report*, Vol. 2, No. 2, October 1982.

6. Binomial v. Hypergeometric Employee Selection Models, *Personnel Research Report*, Vol. 2, No. 4, April 1983.

7. Preponderance of Evidence, P-values and Standard Deviations, *Personnel Research Report*, Vol. 3, No. 1, October 1983.

8. Age Patterns in Employee Flow, *Personnel Research Report*, Vol. 3, No. 2, April 1984.

9. Testing the Plausibility of A Regression, *Personnel Research Report*, Vol. 3, No. 3, July 1984.

10. Workforce Reductions: A Time for Preventive Statistics, *PRI Report*, Vol. 4, No. 3, October 1985.

11. Data Acquisition for Litigation (Part 1 & II), *PRI Report*, Vol. 5, No. 1, April 1986, Vol. 5, No. 3, March 1987.

12. Underutilization: The Small Group and Large Group Problems, and a Proposed Solution to Both, *PRI Report*, Vol. 5, No. 2, July 1986.

13. Calculating Mitigated Lost Earnings, *PRI Report*, Vol. 5, No. 4, June 1987.

14. Using Computers to Prepare Evidence, *PRI Report*, Vol. 6, No. 1, October 1987.

15. Samples, Populations and the Whole Universe, *PRI Report*, Vol. 6, No. 2, July 1988.

16. Lost Future Income: Calculating Expected Present Values, *PRI Report*, Vol. 6, No. 3, October 1988.

17. Detecting Discrimination in Peremptory Challenges, *PRI Report*, Vol. 6, No. 4, December 1990.

18. One Tail or Two? Or Does it Really Matter?, *PRI Report*, Vol. 7, No. 1, June 1991.

19. The Worst of Ten is Pretty Bad, *PRI Report*, Vol. 8, No. 1, July 1997.

20. Standard Deviation Calculations: A Refinement for Small Numbers, *PRI Report*, Vol. 8, No. 3, May 1998.

21. What Does a Regression Analysis Really Show?, *PRI Report*, Vol. 8, No. 4, November 1998.

22. Compensation Analysis à la OFCCP, *PRI Report,* Vol. 9, No. 2, March 2000.

A - 9

David W. Peterson

23. Compensation Analysis: Accounting for Employer Latitude in Setting Pay, *The Report,* Vol. 1 No. 1, February 2001.

24. A Regression Example for Those Who Still Believe in it, *The Report,* Vol. 1 No. 3, August 2001.

25. Normal Equivalent Standard deviations, *The Report,* Vol. 1 No. 4, March 2002.

Patents

1. *Verifiable, Auditable Voting System Maintaining Voter Privacy,* U.S. Patent 7,451,928 B2, Granted November 18, 2008.

2. *Automated Voting District Generation Using Preexisting Geopolitical Boundaries,* Filed January 24, 2007, (with Claire Ellis Osgood), Pending.

November 9, 2010
Pittsboro NC

A - 10

APPENDIX B

Cases in which David W. Peterson has Testified at Trial or by Deposition

Since January 1, 2005

Case Name	Depo or Trial	Date	Venue
DAG Petroleum Suppliers, LLC *v.* BP p.l.c. and BP Products North America, Inc.	Deposition	7/26/06	Chicago, IL
O'Neal, *et al. v.* Wackenhut Services, *et al.*	Deposition Deposition	6/16/05 4/3/06	Raleigh, NC Raleigh, NC
Anniemarie Harrison-Gray and Beverly Hatcher, Class Agents, v. Eric K. Shinseki, Secretary, U.S. Department of Veterans Affairs, Agency	Deposition	8/6/09	Washington, DC

Updated 12/20/2011

```
STATE OF NORTH CAROLINA  IN THE GENERAL COURT OF JUSTICE
                             SUPERIOR COURT DIVISION
COUNTY OF WAKE                     11 CVS 16896
                                   11 CVS 16940


MARGARET DICKSON, et al.,         )
                                  )
            Plaintiffs,           )
    vs.                           )
ROBERT RUCHO, in his              )
official capacity only as         )
the Chairman of the North         )
Carolina Senate                   )
Redistricting Committee,          )
et al.,                           )
                                  )
            Defendants.           )
                                  )
_____   )
NORTH CAROLINA STATE              )
CONFERENCE OF BRANCHES OF         )
THE NAACP, et al.,                )
                                  )
            Plaintiffs,           )
    vs.                           )
STATE OF NORTH CAROLINA,          )
et al.,                           )
                                  )
            Defendants.           )
                                  )
```


        DEPOSITION OF THOMAS HOFELLER, Ph.D.

_____

                    9:31 A.M.

            THURSDAY, JUNE 28, 2012

_____

                 POYNER SPRUILL
            301 FAYETTEVILLE STREET
                  SUITE 1900
              RALEIGH, NC 27601

By: Denise Myers Byrd, CSR 8340, RPR

```
 1              A P P E A R A N C E S

 2


 3   For the Plaintiffs, NAACP:

 4              SOUTHERN COALITION FOR SOCIAL JUSTICE
                BY:  ANITA EARLS, ESQ.
 5                   ALLISON RIGGS, ESQ.
                     CHRIS KETCHIE, Policy Analyst
 6              1415 West Highway 54
                Suite 101
 7              Durham, NC  27707
                (919) 323-3380
 8              anita@southerncoalition.org
                allison@southerncoalition.org
 9


10              FERGUSON STEIN CHAMBERS GRESHAM & SUMTER
                BY:  ADAM STEIN, ESQ.
11              312 West Franklin Street
                Chapel Hill, NC  27516
12              (919) 933-5300


13
     For the Plaintiffs, Margaret Dickson, et al.:
14
                POYNER SPRUILL
15              BY:  EDWIN M. SPEAS, JR., ESQ.
                301 Fayetteville Street
16              Suite 1900
                Raleigh, NC  27601
17              (919) 783-2881
                espeas@poynerspruill.com
18


19   For All Defendants:

20              N.C. DEPARTMENT OF JUSTICE
                BY:  ALEXANDER McC. PETERS,
21                   SPECIAL DEPUTY ATTORNEY GENERAL
                114 W. Edenton Street
22              Raleigh, NC  27603
                (919) 716-6900
23              apeters@ncdoj.gov

24

25
```

Exhibit 2 to Second Declaration of John M. Devaney

```
 1

 2

 3   For the Legislative Defendants:

 4               OGLETREE DEAKINS
                 BY:  THOMAS A. FARR, ESQ.
 5               4208 Six Forks Road
                 Suite 1100
 6               Raleigh, NC  27609
                 (919) 789-3174
 7               thomas.farr@ogletreedeakins.com

 8
                 DALTON L. OLDHAM, ESQ.
 9               1119 Susan Street
                 Columbia, SC  29210
10               803-772-7729

11

12                        --o0o--

13

14

15               INDEX OF EXAMINATION

16                                              Page

17   By Ms. Earls..........................       9

18                        --o0o--

19

20

21

22

23

24

25
```

```
 1                THOMAS HOFELLER, Ph.D.,

 2   having been first affirmed by the Certified Shorthand

 3   Reporter and Notary Public to tell the truth, the whole

 4   truth and nothing but the truth, testified as follows:

 5                      EXAMINATION

 6   BY MS. EARLS:

 7   Q.   Good morning, Dr. Hofeller.  As we introduced

 8        ourselves before the deposition, my name is Anita

 9        Earls.  I represent the NAACP, several other

10        organizations and a large number of citizens in

11        North Carolina who have filed suit challenging the

12        legislative and Congressional redistricting maps.

13                 Would you state your name for the record,

14        please.

15   A.   Thomas Brooks Hofeller.

16   Q.   And, Dr. Hofeller, you've been deposed before, I

17        take it.

18   A.   Yes.

19   Q.   Can you give me a rough estimate of how many times

20        you've had your deposition taken.

21   A.   Probably 10 or 12 times.

22   Q.   And how many times have you testified in court?

23   A.   About the same.  I would say, 10 or 12 times.  It's

24        all on my resume.

25   Q.   I ask mainly to clarify that you know it's
```

Exhibit 2 to Second Declaration of John M. Devaney

p. 4 of 15

```
 1      assisting the chairs in setting up the databases

 2      they needed?

 3  A.  Yes.

 4  Q.  And does this accurately reflect the work that

 5      ultimately was done?

 6  A.  Yes.

 7  Q.  And to your knowledge, was it done properly?

 8  A.  It appears so to me and on time, I might add.

 9  Q.  Very good.

10           MS. EARLS:  This is a good place to take a

11      break.

12           (Brief Recess:  10:32 to 10:45 a.m.)

13  BY MS. EARLS:

14  Q.  I have a few more questions about this data

15      project.  And I want to understand you were merging

16      election returns from the North Carolina -- well,

17      not you personally, but the point of the project

18      was to merge election returns from the

19      North Carolina Board of Elections and voter

20      registration data with the -- eventually with the

21      PL 94-171 Census data; is that correct?

22  A.  Yes.

23  Q.  And that would allow you when you're drawing --

24      would allow anyone using that database -- and just

25      so I'm clear, in the work that you were doing in
```

Exhibit 2 to Second Declaration of John M. Devaney

1   North Carolina, were you using Maptitude?

2 A.   Yes.

3 Q.   And the state legislative system used Maptitude?

4 A.   Yes, although a different version thereof.

5 Q.   And the Maptitude that you were using, was that

6   on -- was that a personal copy or was that on a

7   computer in some other place?

8 A.   It was a stand-alone copy, yes. My computer,

9   essentially.

10 Q.   What version of Maptitude were you using? You said

11   it was different from the legislature's.

12 A.   The legislative version had been modified to run on

13   the state's system and interface with outside

14   software to do maps and reports and things such as

15   that, but the part of the system that actually did

16   the line drawing was -- the core of it was

17   Maptitude.

18 Q.   So the project to merge the election returns and

19   voter registration data with the Census data would

20   allow someone using Maptitude, when they're drawing

21   maps, to determine the voter registration data for

22   the districts that they were drawing; is that

23   correct?

24 A.   Yes.

25 Q.   And it would allow someone to look at election

```
 1        returns in the district that they were drawing?

 2   A.   Well, not only for the districts they were drawing,

 3        but if you selected a certain area that you wanted

 4        to move, you could tell what the characteristics of

 5        that work was too.

 6   Q.   And by characteristics, when we're referring to

 7        election returns, you mean specifically what the

 8        vote totals were -- whether a primary or general

 9        election what the vote totals were for the various

10        candidates?

11   A.   And also the demographics, yes.

12   Q.   When you say demographics, what are you referring

13        to?

14   A.   The Census data.

15   Q.   And what data -- what demographic data does the PL

16        94-171 file give?

17   A.   It's a breakdown of the racial and ethnic data by

18        all units of Census geography, essentially.

19   Q.   And it gives you voting age population as well; is

20        that correct?

21   A.   Yes.

22   Q.   In this project of being able to merge the data, am

23        I correct that the Census data, as you said, goes

24        to all levels of geography so you have -- down to

25        the Census block you can tell the race and voting
```

Exhibit 2 to Second Declaration of John M. Devaney

1   age and total population data for every Census

2   block in the state?

3   A.   There is a record in the PL 94 data for every piece

4   of geography up and down the whole hierarchy and

5   that would be incorporated in part in the

6   redistricting system.

7   Q.   And the smallest level of geography is the Census

8   block level?

9   A.   It is.

10 Q.   The election data, when you receive it from the

11   Board of Elections, does not go down to the Census

12   block level, does it?

13 A.   No.

14 Q.   The Board of Elections keeps their election returns

15   by precinct; is that correct?

16 A.   They keep it by precinct and I think also by VTD.

17 Q.   And what's the difference between precinct and VTD?

18 A.   Well, the VTD is a unit which is established in

19   partnership -- in a partnership between the state

20   government and the Census Bureau for the state's

21   convenience to report out demographic data.

22   It's a level of hierarchy which requires

23   the states' participation across the nation to

24   identify those -- the boundaries of those pieces of

25   geography to the Bureau so they can incorporate

Exhibit 2 to Second Declaration of John M. Devaney

```
 1   STATE OF NORTH CAROLINA    )
                                )   C E R T I F I C A T E
 2   COUNTY OF WAKE             )

 3

 4              I, DENISE L. MYERS, Court Reporter and

 5      Notary Public, the officer before whom the foregoing

 6      proceeding was conducted, do hereby certify that the

 7      witness(es) whose testimony appears in the foregoing

 8      proceeding were duly sworn by me; that the testimony

 9      of said witness(es) were taken by me to the best of

10      my ability and thereafter transcribed under my

11      supervision; and that the foregoing pages, inclusive,

12      constitute a true and accurate transcription of the

13      testimony of the witness(es).

14              I do further certify that I am neither

15      counsel for, related to, nor employed by any of the

16      parties to this action, and further, that I am not a

17      relative or employee of any attorney or counsel

18      employed by the parties thereof, nor financially or

19      otherwise interested in the outcome of said action.

20      This the 6th day of June 2012.

21

22

23
                        Denise L. Myers
24                      My commission expires 9/14/2013

25
```

Exhibit 2 to Second Declaration of John M. Devaney

```
STATE OF NORTH CAROLINA   IN THE GENERAL COURT OF JUSTICE
                                SUPERIOR COURT DIVISION
COUNTY OF WAKE                       11 CVS 16896
                                     11 CVS 16940


MARGARET DICKSON, et al.,        )
                                 )
           Plaintiffs,           )
    vs.                          )
ROBERT RUCHO, in his             )
official capacity only as        )
the Chairman of the North        )
Carolina Senate                  )
Redistricting Committee,         )
et al.,                          )
                                 )
           Defendants.           )
_____  )
NORTH CAROLINA STATE             )
CONFERENCE OF BRANCHES OF        )
THE NAACP, et al.,               )
                                 )
           Plaintiffs,           )
    vs.                          )
STATE OF NORTH CAROLINA,         )
et al.,                          )
                                 )
           Defendants.           )
                                 )
```

         DEPOSITION OF THOMAS HOFELLER, Ph.D.

                    VOLUME II
_____

                    9:31 A.M.

              FRIDAY, AUGUST 10, 2012
_____

                  POYNER SPRUILL
              301 FAYETTEVILLE STREET
                    SUITE 1900
                 RALEIGH, NC 27601

By: Denise Myers Byrd, CSR 8340, RPR

```
 1              A P P E A R A N C E S

 2


 3   For the Plaintiffs, NAACP:

 4               SOUTHERN COALITION FOR SOCIAL JUSTICE
                 BY:  ANITA EARLS, ESQ.
 5                    ALLISON RIGGS, ESQ.
                      CHRIS KETCHIE, Policy Analyst
 6               1415 West Highway 54
                 Suite 101
 7               Durham, NC  27707
                 (919) 323-3380
 8               anita@southerncoalition.org
                 allison@southerncoalition.org
 9


10   For the Plaintiffs, Margaret Dickson, et al.:

11               POYNER SPRUILL
                 BY:  EDWIN M. SPEAS, JR., ESQ.
12               301 Fayetteville Street
                 Suite 1900
13               Raleigh, NC  27601
                 (919) 783-2881
14               espeas@poynerspruill.com

15
     For All Defendants:
16
                 N.C. DEPARTMENT OF JUSTICE
17               BY:  ALEXANDER McC. PETERS,
                      SPECIAL DEPUTY ATTORNEY GENERAL
18               114 W. Edenton Street
                 Raleigh, NC  27603
19               (919) 716-6900
                 apeters@ncdoj.gov
20

21   For the Legislative Defendants:

22               OGLETREE DEAKINS
                 BY:  THOMAS A. FARR, ESQ.
23               4208 Six Forks Road
                 Suite 1100
24               Raleigh, NC  27609
                 (919) 789-3174
25               thomas.farr@ogletreedeakins.com
```

Exhibit 2 to Second Declaration of John M. Devaney

```
 1              THOMAS HOFELLER, Ph.D.,

 2   having been previously affirmed by the Certified Shorthand

 3   Reporter and Notary Public to tell the truth, the whole

 4   truth and nothing but the truth, testified as follows:

 5                    FURTHER EXAMINATION

 6   BY MS. EARLS:

 7   Q.    Good morning, Dr. Hofeller.  This is the

 8         continuation of your deposition that we started on

 9         Thursday, June 28th.

10              So I will remind you that you're still

11         under oath and all of the things I said at the

12         beginning of that day, including to ask you if you

13         need a break, let me know.

14              And if there are any documents that would

15         help you answer a question that I ask, please let

16         me know.  We have all of the exhibits that we used

17         on that day here again.

18              And I certainly want to thank you for

19         coming back.  And I don't have a lot more, but I do

20         have some areas that we were not able to cover that

21         day.

22              Let me start by explaining that your

23         testimony identified four main areas of involvement

24         in North Carolina's redistricting following the

25         2010 Census:  The gathering data before the Census
```

1   give me a moment. I'm trying to understand how

2   this works.

3   BY MS. EARLS:

4   Q.   But going back to the precinct that we're looking

5   at now, Precinct 09-03 in Wake county, when you

6   were deciding how to divide this precinct, you

7   didn't have a political data thematic on the block

8   level that would help you decide how to divide

9   Precinct 09-03?

10   A.   No.

11   Q.   We have the -- we can pull up a similar map for the

12   state legislative districts, but I would only want

13   to do that if you did anything significantly

14   different between the House map or the Senate map.

15   So when you were -- we've been looking at the

16   Senate map.

17   When you were drawing the House map, did

18   you do anything significantly different?

19   A.   In that precinct?

20   Q.   Not in that precinct but in drawing the districts

21   in Wake county or --

22   A.   It would depend on which district.

23   Q.   I'm sorry. What would depend on which district?

24   A.   It would depend on what type of a district was and

25   what I was looking for when I was drawing that

Exhibit 2 to Second Declaration of John M. Devaney

```
 1        particular district.

 2   Q.   So --

 3   A.   So -- never mind.

 4   Q.   Can you give me an example of how -- what you were

 5        looking at on the screen would vary depending on

 6        which district you were drawing?

 7   A.   Again, I might be looking at a city limit line.  I

 8        might be looking at street patterns.  I might be

 9        looking at incumbent residences.  I might be

10        looking at politics.  I might be looking at race

11        ethnicity.

12                  So the displays could vary depending on

13        what I was trying to do and how important it was to

14        have them up.

15   Q.   But the information available to you at the Census

16        block level, which is the level that's shown here

17        in this portion of Senate District 14 and 18, that

18        was only the PL 94 data; is that right?

19   A.   Yes, the 2010 Census Bureau redistricting data set.

20   Q.   Okay.  Thank you.

21   A.   You're welcome.

22   Q.   Did we mark this as an exhibit.  I think that's all

23        I have.

24             MR. FARR:  What exhibit was the last one?

25             MR. PETERS:  Exhibit 511.
```

Exhibit 2 to Second Declaration of John M. Devaney

p. 14 of 15

```
 1  STATE OF NORTH CAROLINA    )
                               )   C E R T I F I C A T E
 2  COUNTY OF WAKE             )

 3

 4              I, DENISE L. MYERS, Court Reporter and

 5      Notary Public, the officer before whom the foregoing

 6      proceeding was conducted, do hereby certify that the

 7      witness(es) whose testimony appears in the foregoing

 8      proceeding were duly sworn by me; that the testimony

 9      of said witness(es) were taken by me to the best of

10      my ability and thereafter transcribed under my

11      supervision; and that the foregoing pages, inclusive,

12      constitute a true and accurate transcription of the

13      testimony of the witness(es).

14              I do further certify that I am neither

15      counsel for, related to, nor employed by any of the

16      parties to this action, and further, that I am not a

17      relative or employee of any attorney or counsel

18      employed by the parties thereof, nor financially or

19      otherwise interested in the outcome of said action.

20      This the 21st day of August 2012.

21

22

23
                            Denise L. Myers
24                          My commission expires 9/14/2013

25
```