

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA
DURHAM DIVISION
Civil Action 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.)

**DEFENDANTS' CONSENT
MOTION FOR LEAVE TO FILE A
SUR-REPLY**

Defendants hereby file this motion for leave to file a sur-reply to the reply brief filed by Plaintiffs in support of their motion for a preliminary injunction and show the Court as follows:

1. On December 24, 2013, Plaintiffs filed a motion for a preliminary injunction.
2. On January 17, 2014, Defendants filed a response to Plaintiffs' motion.
3. On February 3, 2014, Plaintiffs filed a reply brief that includes new evidence and arguments that do not merely rebut arguments offered in Defendants' response but instead go beyond the evidence and arguments presented in Plaintiffs' original filings in support of their motion for a preliminary injunction.

4. Plaintiffs' reply raises new factual allegations that could have been made in their original motion and were not. Defendants will be prejudiced if they are not given an opportunity to respond to these new allegations.

5. Plaintiffs therefor respectfully request that the sur-reply attached as Exhibit A to this motion be accepted by the Court.

6. Defendants have asked Plaintiffs' counsel for their position on this motion and can advise the Court that Plaintiffs have consented to the filing of the attached sur-reply.

7. A proposed Order granting this motion is attached.

WHEREFORE, for the reasons set forth herein, Defendants respectfully request that this motion be granted and their sur-reply be considered by the Court in ruling on Plaintiffs' motion for a preliminary injunction.

This the 7th day of February, 2014.

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EXHIBIT A

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA
DURHAM DIVISION
Civil Action 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.

**DEFENDANTS' SUR-REPLY IN
OPPOSITION TO PLAINTIFFS'
MOTION FOR A
PRELIMINARY INJUNCTION**

In their opening brief, plaintiffs made no mention of expert testimony by Dr. David W. Peterson offered by the plaintiffs in *Dickson et al. v. Rucho* (D.E. 19-1.) For this reason, defendants did not address Dr. Peterson's testimony in their response. Plaintiffs have now cited to selected testimony by Dr. Peterson in *Dickson* and argued that defendants response is flawed because defendants did not "highlight" Peterson's testimony. (D.E. 37, p. 6 n.5.)

Dr. Peterson, in fact, admitted in *Dickson* that he did not and could not conclude that race was the predominant motive in the drawing of the First and Twelfth Districts. (Deposition of Dr. David W. Peterson ("Peterson Dep."), pp. 86-91) (all cited excerpts from Dr. Peterson's deposition are attached hereto as

Ex. Q).¹ Rather, Dr. Peterson rendered the limited opinion that race “better accounts for” the boundaries of those districts than the political party of voters. (Peterson Dep. Ex. 286.) That is not the legal standard. The law instead requires that race *predominated*, and that *all* other considerations were subordinated to race. *Easley v. Cromartie*, 532 U.S. 234-42 (2001) (“*Cromartie II*”).

Plaintiffs also incorrectly infer that the United States Supreme Court relied on Dr. Peterson’s entire report in its decision in *Cromartie II* and that his report in that case was similar to his report in *Dickson*. (D.E. 37, p. 6, n. 5.) This is not accurate. In *Cromartie II*, Dr. Peterson’s report included two parts: (1) a “segment analysis” comparing vote tabulation districts (“VTDs”) included in the Twelfth District with contiguous VTDs that were excluded; and (2) an analysis comparing race with partisan voting behavior. 532 U.S. at 252. In *Cromartie II*, the Supreme Court reversed the district court’s decision that the Twelfth District was an illegal racial gerrymander. *Id.* at 237. The Supreme Court noted that the district court’s criticism of Dr. Peterson focused on Dr. Peterson’s segment analysis without addressing Dr. Peterson’s study on the voting behavior of African Americans. *Id.* at 252. The Supreme Court in *Cromartie II* concluded that the evidence before the district court did not prove a racial gerrymander “because race in this case correlates closely with political

¹ Exhibits A through P were filed in conjunction with Defendants’ Memorandum in Opposition to Plaintiffs’ Motion for a Preliminary Injunction. (See D.E. 30 through 33.)

behavior.” *Id.* at 257. The Court never addressed or relied upon Dr. Peterson’s segment analysis

In *Dickson*, Dr. Peterson’s testimony focused only on his test for “segment analysis.” In contrast to his report in *Cromartie II*, Dr. Peterson in *Dickson* elected not to study whether race correlated closely with political behavior. (Peterson Dep. 110-11.)

Moreover, in *Dickson*, Dr. Peterson’s statement that race better explains the challenged districts than politics conflicts with his own segment analysis. Out of twelve studies conducted by Dr. Peterson of the Twelfth District, six favored the race hypothesis and six did not favor it. (Peterson Dep. Ex. 286 ¶ 15.) Thus, Dr. Peterson’s own data demonstrated that, as between race and political party, his study was inconclusive. Moreover, in those instances in which Dr. Peterson’s data was unequivocal, the race-versus-party explanation was, at best, a tie. (Peterson Dep. pp. 100-01; Peterson Dep. Ex. 286 ¶ 16; Peterson Dep. Ex. 288 ¶ 16.) Dr. Peterson even conceded that the race and political hypotheses have *equal* support under his segment analysis and that one could therefore not better account for the boundary than the other. (Peterson Dep. pp. 100-01.)²

² More importantly, when limited to the information that the legislature’s mapdrawing consultant, Dr. Hofeller, actually used during the mapdrawing process (voting age population and election results for President Obama in 2008), Dr. Peterson’s own data showed that the *party* hypothesis is a *better* explanation for the boundaries of the Twelfth District. The same data showed that the race hypothesis and the party hypothesis are tied in the analysis for the First District. (Peterson Dep. pp. 113-15.)

The testimony by Dr. Peterson cited by the *Harris* plaintiffs is seriously flawed and has no probative value on whether race closely correlates with political behavior and, accordingly, whether race was the predominant motive for either the First or Twelfth Districts.

This the 7th day of February, 2014.

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EXHIBIT Q

Excerpts and Exhibits from the Deposition of Dr. David W. Peterson

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
DAVID W. PETERSON, Ph.D.

9:30 A.M.

MONDAY, JUNE 4, 2012

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1 you arrived at the R and the P labels; is that
2 correct?

3 **A. Yes, paragraphs 9 and 10.**

4 **Q.** And in paragraph 9 you said where the segment was
5 either Type B and not Type D or Type D and not
6 Type B -- excuse me. Strike that.

7 You said where a segment is Type B and not
8 Type D that it supports the proposition, the Race
9 Hypothesis, that it was chosen at least in part
10 because it serves to collect blacks into the 12th
11 District, correct?

12 **A.** I don't recall the first part of that question, but
13 what I say specifically is that a segment of the
14 type you describe supports the proposition that
15 Race Hypothesis, that it was chosen at least in
16 part because it serves to collect blacks under the
17 12th District.

18 **Q.** All right. And what exactly do you mean by "in
19 part"?

20 **A.** Well, there may have been other reasons for
21 choosing a boundary the way that it was chosen. A
22 boundary may be chosen for many different reasons
23 more or less simultaneously.

24 What I'm saying here is a Type R segment
25 supports the proposition that this particular

1 segment was chosen at least in part because it
2 serves to collect blacks in the 12th District and
3 it militates against the proposition that the
4 segment was chosen in part because it serves to
5 collect Democrats into the district.

6 Q. Right. Is there any way to measure what you mean
7 by "in part"?

8 A. Not that I know of.

9 Q. Is there any way to put any sort of percentage on
10 what you mean by how much, quote, "in part" means?

11 A. Not that I know of.

12 Q. It's certainly not possible using this analysis to
13 show whether race was the sole motivation for a
14 particular boundary?

15 A. No.

16 Q. Is it possible --

17 A. That is to say, I agree with that statement.

18 Q. Right. Thank you.

19 Are you -- when I say that the legal
20 question is whether race was the predominant
21 motive, are you familiar with that term,
22 "predominant motive"?

23 A. Yes.

24 Q. Can your analysis demonstrate whether race was,
25 quote, the "predominant motive"?

1 A. It cannot demonstrate it dispositively. It can
2 suggest but it can't demonstrate. It doesn't
3 constitute and cannot constitute an absolute proof
4 of that proposition.

5 Q. In your mind, what does the phrase "predominant
6 motive" mean?

7 MR. SPEAS: Objection to form.

8 THE WITNESS: I'm not sure I can give you
9 a good definition what it means to predominate.

10 What I can do is to interpret the results
11 of the segment analysis, and what it does is give
12 no hint that political considerations predominated
13 because by and large race seems to correlate better
14 with the boundary of the 12th District than does
15 political affiliation, and under those
16 circumstances one certainly could not conclude that
17 political considerations predominated in the
18 selection of the 12th District.

19 BY MR. STRACH:

20 Q. Right. That's assuming we know what you mean by
21 predominating. What do you mean by predominating?

22 A. If race is a better explanatory, provides a better
23 explanation for the route of the boundary better
24 than political affiliation by the segment analysis
25 measure, then certainly there is no indication that

1 political affiliation predominated over race
2 because race is a better explanation. Race
3 correlates more strongly with the boundary than
4 does political preference.

5 So I don't really need to have a very
6 precise definition of what it means to predominate.
7 All I have to do is to supply at least one
8 marginally better explanation than political
9 affiliation in order to conclude that political
10 affiliation does not predominate over that
11 alternative explanation.

12 Q. And you're able to do that simply between the --
13 because of the raw difference in the R segments
14 over the P segments?

15 A. That's right. By this particular way of measuring
16 the association between the boundary and race and
17 political affiliation I conclude that race provides
18 a better explanation than does political
19 affiliation.

20 Q. Okay. Again, by the raw difference in the totals
21 of R -- what you label R segments versus P
22 segments?

23 A. That's right, based on the segment analysis as I
24 have done it.

25 Q. But you are not able to determine through segment

1 analysis what the predominant motive was in drawing
2 the boundary?

3 **A. Not in any dispositive sense.**

4 Q. Any decision that one might make often might have
5 multiple motivations, right?

6 **A. Yes.**

7 Q. You certainly know that from your work in the
8 employment law area. So in constructing the
9 boundary of a district, how are you able to say
10 whether one factor motivated the map drawer more
11 than the other?

12 **A. I think I have explained what my analysis is.**

13 **Is there some particular point that needs**
14 **elaboration?**

15 Q. Is it a different question whether a particular
16 motive was a motivating factor in a decision versus
17 whether it was the predominant motive?

18 **A. I don't really understand the question.**

19 Q. Okay. With regard to your conclusion, let's try it
20 this way.

21 MR. SPEAS: Are you referring to a
22 particular paragraph?

23 MR. STRACH: Conclusion is paragraph 18.

24 BY MR. STRACH:

25 Q. I want to make sure I understand what you've

1 concluded and what you've not concluded.

2 **A. Fair enough.**

3 Q. And you have not concluded that racial
4 considerations predominated over any other
5 consideration; is that right?

6 **A. That is correct.**

7 Q. What you have concluded is that party affiliation
8 is not a better explanation for the boundary than
9 race?

10 **A. It's a little bit stronger than that. It's that**
11 **race is better than party affiliation according to**
12 **the measures in the segment analysis.**

13 Your phrasing admits of a possibility that
14 two explanations are equally balanced. My phrasing
15 recognizes that race is actually better than
16 political affiliation in accounting for the
17 boundary.

18 Q. Now, in this particular analysis the relevant
19 results are in the Table 1, correct, on page 6?

20 **A. Yes.**

21 Q. And if you add up all of the Ps and the Rs -- I
22 think you have four Ps, six Rs and two where they
23 were tied. Does that look correct to you?

24 **A. Let's see, I think this is all summarized in**
25 **paragraph 15. I'm sorry. The question was?**

1 accounts for the boundary definition of the 12th
2 Congressional voting district than do party
3 affiliation considerations.

4 Q. And when you say "on balance," that's on balance in
5 your judgment or is there any way to measure what
6 you mean by "on balance"?

7 A. The way to measure the way I mean "on balance" is
8 summarized largely in paragraph 15 where in four of
9 the 12 studies the number of segments support the
10 Political Hypothesis, there are two studies in
11 which there are equal numbers of Type R and Type P
12 segments and the other six studies there's more
13 support for the Race Hypothesis than for the
14 Political Hypothesis, and in each of those six the
15 imbalance is more pronounced than any of the four
16 studies favoring the Political Hypothesis.

17 Q. Is it fair to say looking at only the information
18 in paragraph 16 would lead one to conclude that
19 whether race or politics determined the boundary of
20 the 12th would be inconclusive?

21 A. If one looked only at paragraph 16, one would have
22 to conclude that the two -- the two hypotheses have
23 equal support.

24 Q. Right. And therefore, one could not better account
25 for the boundary than the other?

1 A. That's correct.

2 Q. All right. Now we just talked about the two
3 segments that were unequivocal in their support for
4 one hypothesis over the other.

5 A. Yes.

6 Q. Now, there were, I'm sure, a number of segments
7 that were P or R depending on the combination of
8 the data that was run.

9 A. Yes.

10 Q. Do you remember how many of those segments there
11 were?

12 A. Yes. That's what's shown in Table 1.

13 Q. So let me make sure I understand this. When you
14 ran registered Democrat data versus black
15 population data, you had eight divergent pairs that
16 supported the Party Hypothesis and six divergent
17 pairs that supported the Race Hypothesis for a
18 total of 14 divergent pairs?

19 A. Yes.

20 Q. Now, moving over and using the 2008 governor data,
21 there are 12 divergent pairs, correct?

22 A. Yes.

23 Q. Is there any way of knowing whether those 12
24 overlap any with the 14 in the one we just looked
25 at?

1 right?

2 **A. I haven't drawn maps.**

3 Q. So your perception of the value of each of these
4 measures is based on subjective theory in your mind
5 about what's valuable and what's not?

6 **A. In part, yes. It's also based in part on what data**
7 **are available.**

8 Q. If you'll take a look at the third affidavit. It
9 appears in the first paragraph you left out the
10 amount that you were being paid. It's got X's
11 there. Do you recall how much it was?

12 **A. We had not come to an agreement on what I was to be**
13 **paid for this affidavit.**

14 Q. We'll check with that later. I've got some
15 correspondence that I hope will answer that.

16 One of the elections that you use was the
17 presidential race from 2008, right?

18 **A. Yes.**

19 Q. And have you done -- I know in the Cromartie case
20 you gave an opinion regarding the extent to which
21 black voters are more likely to vote for Democrats;
22 is that correct?

23 **A. I may have. I don't recall specifically.**

24 Q. Have you done any similar analysis with respect to
25 which or regarding the degree to which voters for

1 President Obama in 2008 would likely be black
2 voters?

3 **A. No.**

4 **Q.** If you'll look in this table or in this affidavit
5 at Table P3.2. It's a table you constructed in
6 response to some information by Dr. Hofeller.

7 **A. Yes.**

8 **Q.** This particular table -- can you describe for me
9 what you did to construct it, how this differs,
10 say, from the table we looked at in the second
11 affidavit.

12 **A.** It's quite different from the table in the second
13 affidavit because it's based on Dr. Hofeller's
14 analysis in his -- I think it was his Appendix 2,
15 maybe, and it's Table P3.2 derives from Table P3.1
16 that's on the preceding page in Exhibit 287.

17 And the shaded portions of Table P3.1 are
18 my replication -- my and Chris Ketchie's
19 replication of Dr. Hofeller's data. And he based
20 his Appendix 2 analysis on the voting age
21 population and on general election data from the
22 2008 presidential election.

23 And in his table, his Appendix 2 analysis
24 he winds up comparing the two percentages shown in
25 the second to the last line of the table in the

1 preference that are used in the segment analysis.

2 When you do all 12 of the possible
3 comparisons, you get the results that are displayed
4 in Table 3.2.

5 It's true that Dr. Hofeller's analysis,
6 based as it is only on the voting age population
7 blacks and the percentage of -- or the change in
8 percentage of people who voted for Obama, that by
9 his analysis it provides stronger support for the
10 Party Hypothesis than for the Race Hypothesis, but
11 when you expand that to include the 11 other
12 comparisons possible, it turns out that there are
13 more instances in which the data support the Race
14 Hypothesis by his method of analysis than support
15 the Party Hypothesis.

16 Q. And so your table, though, shows that if the map
17 was drawn using the data that Dr. Hofeller said was
18 used, the percent Obama and the voting age
19 population, then this would support the Political
20 Hypothesis over the Race Hypothesis?

21 A. If you do the comparison the way that Dr. Hofeller
22 did, yes.

23 Q. Well, and if that data was the data that was used
24 in drawing the map, then that would support the
25 Political Hypothesis over the Race Hypothesis?

1 **A.** **If that was the only information that the map**
2 **drawer relied upon, yes. However, you might want**
3 **to look at Table P3.**

4 **Q.** I'm looking at your fourth affidavit which is your
5 analysis of the 1st Congressional District. And is
6 it fair for me to assume that the analysis you did
7 on the 12th District in terms of the way you
8 conducted the analysis is identical to the way you
9 did the analysis of the 1st Congressional District?

10 **A.** **Yes.**

11 **Q.** So all of the assumptions or limitations of the
12 analysis we've just discussed would apply equally
13 to the analysis of the 1st District?

14 **A.** **Yes.**

15 **Q.** If you will look at Table P5.1 on page 6 and,
16 again, if you look at the intersection of black
17 voting age population and the election data for the
18 presidential race in 2008, the intersection of
19 those two sets of data do not favor the Race or the
20 Political Hypothesis; is that true?

21 **A.** **They come in each with six segments in support.**

22 **Q.** Which means that neither hypothesis better accounts
23 for the boundary of the 1st District than the other
24 with regard to that comparison?

25 **A.** **That's correct.**

1 Q. And so if the map drawer used only voting age
2 population and statistics from the presidential
3 race to draw the 1st District, then this chart
4 would support the notion that neither race nor
5 politics better accounted for the boundary of that
6 district?

7 A. **If you focus only on that comparison, that's**
8 **correct.**

9 Q. If you'll look one more time at the colorful maps
10 that we handed to you earlier, I just wanted to
11 look at one more thing on there. If you'll look at
12 page 2 or at least the second page.

13 A. **Just for the record, that's Exhibit 285.**

14 Q. Yes. Thank you. Or what I call the colorful maps.
15 Again, as we've explained before, the dark
16 green are the precincts on the inside of the
17 boundary of the 12th District and the pink VTD is
18 the VTD on the outside of the boundary of the 12th
19 District. And if you can see in VTD Number 44 the
20 black voting age population is 2.03 percent and
21 that's compared with VTD 09 where the black voting
22 age population is 1.79 percent. Do you see those
23 that I'm looking at?

24 A. **Yes.**

25 Q. Now, because the black voting age population in

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.

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

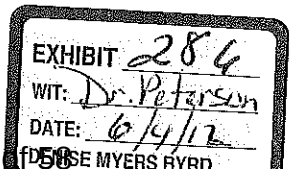
NORTH CAROLINA STATE CONFERENCE
OF BRANCHES OF THE NAACP *et al.*,

Plaintiffs,

v.

STATE OF NORTH CAROLINA *et al.*,

Defendants.



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.

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

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.

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.

- 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:					
	Race	Party	2008 Governor Race	Party	2008 President Race	Party	2010 US Senate 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.

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.

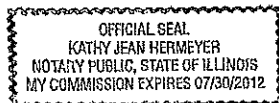
David W. Peterson
David Peterson

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)

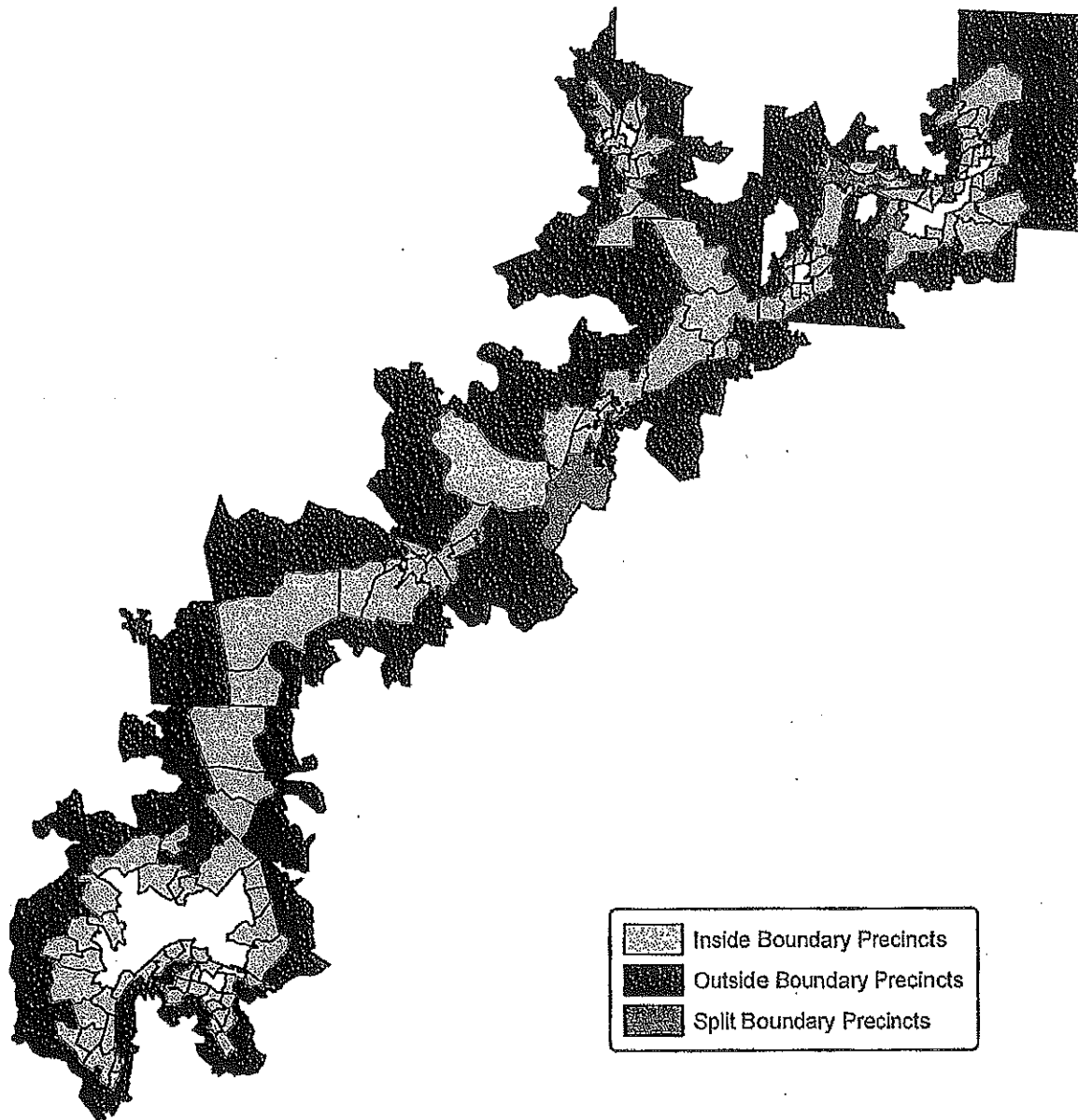


Kathy Jean Hermeyer
Notary Public

My Commission expires:

07 / 30 / 2012

Map 1. NC 12th Congressional District



0 10 20 40 60 Miles

Map Created By: Chris Ketchie, Policy Analyst, Southern Coalition for Social Justice

APPENDIX A

DAVID WEST PETERSON

1942 Rock Rest Road
Pittsboro, North Carolina 27312

Home: 919-542-6937
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

David W. Peterson

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.

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).

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.

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.

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.

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.

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.

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

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, <i>et al.</i> v. Wackenhut Services, <i>et al.</i>	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
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.

**FOURTH AFFIDAVIT OF PLAINTIFFS'
STATISTICAL EXPERT**

DAVID W. PETERSON, PhD

FIRST CONGRESSIONAL DISTRICT
SEGMENT ANALYSIS

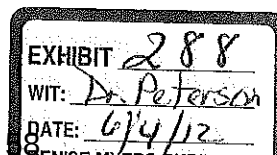
I, David Peterson, being first duly sworn, depose and say:

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. My qualifications and recent testimony are set forth in each of my First and Second Affidavits in this case.

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 1st Congressional Voting District defined by "Rucho-

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.,



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.

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 1st 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_1.csv, a data file created and conveyed to me by Chris Ketchie on May 8, 2012. The file was created by a computer script originally written by Damian Maddelena, but modified by me before Mr. Ketchie used it to create District_1.csv. The information contained in the data file is a table, each row of which pertains to a segment of the boundary of the 1st District, and indicates, among other things, the fraction of the people residing in the precinct just outside the 1st 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 1st District. The pertinent parts of the file are printed out in Appendix A. I also rely on a map 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.

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.

Review

5. I have studied the data and computer program mentioned above, discussed them 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 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 1 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

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.

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 1st 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 was chosen at least in part because it serves to collect blacks into the 1st 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 1st 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 253 segments to the border of the 1st 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.

⁴ While these 253 segments encompass very nearly the entire boundary of the 1st 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.

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;
- 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 1. The results are summarized in Table P5.1 and graphed in Figure P5.1.

15. In two 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 eight

Table P5.1. Tallies of District 1 Segments by Race and Party Types

	Registered Democrat		Voted for Democrat:					
	Race	Party	Race	Party	Race	Party	Race	Party
Black Population	15	5	8	9	8	8	11	8
Black Voting Age Population	15	4	7	8	6	6	9	6
Black Registered Voters	20	7	7	6	6	4	9	4

Source: District_1 DWP Edit.xlsx


studies, there is more support for the Race Hypothesis than for the Political Hypothesis, and in each of these eight, the imbalance is more pronounced than in either of the two 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.

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 P5.1 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 P5.1, 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 1st NC Congressional Voting District than do party affiliation considerations. There is no indication that party affiliation dominated racial considerations.

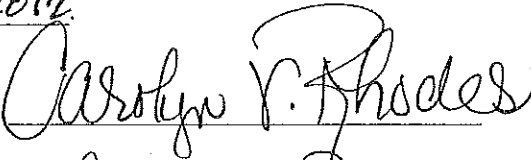

David W. Peterson

State of NORTH CAROLINA
County of DURHAM

I certify that the above person personally appeared before me this day, acknowledging to me that he voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated:

Date: May 8, 2012

Official Signature of Notary



Notary's Printed or Typed Name:

Carolyn V. Rhodes, Notary Public

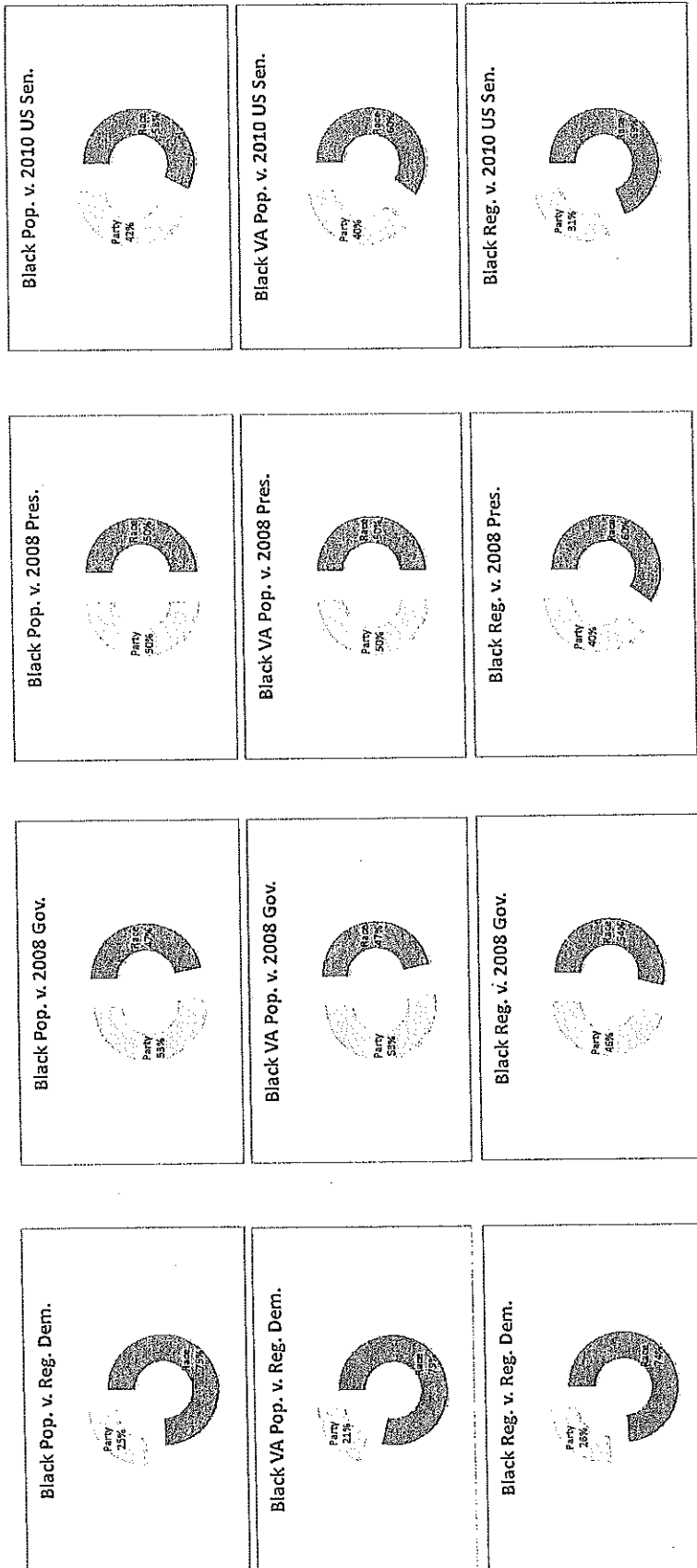
My Commission Expires:

April 20, 2013

(Official Seal)

**Carolyn V Rhodes
NOTARY PUBLIC
Durham County, NC**

Figure P5.1. Segment Analysis Results From Table P5.1.



Seq	InsidePrecinct	OutsidePrecinct	Inside Precinct			Outside Precinct			SEN10	PRES08	GOV08	DREG	BPOP	BVAP	BREG	DREG	GOV08	PRES08	SEN10
			BPOP	BVAP	BREG	DREG	BPOP	BVAP											
1	37013WASH1	37013CHOCO	0.47945	0.44852	0.43724	0.59823	0.72400	0.64358	0.54651	0.22347	0.22149	0.47142	0.23361	0.22347	0.22149	0.47142	0.52176	0.36252	0.32498
2	37013WASH1	37013WASH4	0.47945	0.44852	0.43724	0.59823	0.72400	0.64358	0.54651	0.25569	0.24387	0.50167	0.25569	0.24387	0.21882	0.50167	0.54210	0.43023	0.36521
3	37013WASH1	37013BEADM	0.47945	0.44852	0.43724	0.59823	0.72400	0.64358	0.54651	0.06343	0.05580	0.39964	0.06343	0.05580	0.05671	0.39964	0.16376	0.19636	
4	37013WASH1	37013WASHP	0.47945	0.44852	0.43724	0.59823	0.72400	0.64358	0.54651	0.20911	0.20061	0.49752	0.20911	0.20061	0.19339	0.49752	0.40211	0.33754	
5	37013PSW3	37013OLDP	0.65289	0.61181	0.67746	0.75873	0.82759	0.77360	0.71746	0.29968	0.29400	0.59680	0.29968	0.29400	0.34957	0.59680	0.59141	0.46943	0.45758
6	37013PSW3	37013WASH4	0.65289	0.61181	0.67746	0.75873	0.82759	0.77360	0.71746	0.25569	0.24387	0.50167	0.25569	0.24387	0.21882	0.50167	0.54210	0.43023	0.36521
7	37013WASH2	37013CHOCO	0.52730	0.49626	0.49579	0.61763	0.70109	0.66502	0.58333	0.23361	0.22347	0.47142	0.23361	0.22347	0.22149	0.47142	0.52176	0.36252	0.32498
8	37013WASH2	37013CHOCO	0.52730	0.49626	0.49579	0.61763	0.70109	0.66502	0.58333	0.18380	0.19373	0.52050	0.18380	0.19373	0.18191	0.52050	0.52181	0.31455	0.28918
9	37015C1	370415	0.49959	0.47769	0.45051	0.74630	0.66388	0.49076	0.41728	0.04277	0.04237	0.44885	0.04277	0.04237	0.02957	0.44885	0.42778	0.26180	0.23012
10	37015C1	370413	0.49959	0.47769	0.45051	0.74630	0.66388	0.49076	0.41728	0.23567	0.25956	0.55796	0.23567	0.25956	0.29129	0.55796	0.55796	0.44435	0.37176
11	37015MH	370416	0.58266	0.57213	0.57722	0.77595	0.73309	0.60469	0.61836	0.04277	0.04237	0.44885	0.04277	0.04237	0.02957	0.44885	0.42778	0.26180	0.23012
12	37015W1	37117W	0.66110	0.65281	0.61230	0.78819	0.76536	0.68018	0.61624	0.18380	0.19373	0.52050	0.18380	0.19373	0.18191	0.52050	0.52181	0.31455	0.28918
13	37015WH	370413	0.40669	0.39168	0.42449	0.64531	0.63373	0.51895	0.45305	0.04277	0.04237	0.44885	0.04277	0.04237	0.02957	0.44885	0.42778	0.26180	0.23012
14	370414	370415	0.42802	0.43561	0.42449	0.64531	0.63373	0.51895	0.45305	0.18571	0.19843	0.52050	0.18571	0.19843	0.23907	0.52050	0.55508	0.37370	0.37413
15	370414	370413	0.42802	0.43561	0.42449	0.64531	0.63373	0.51895	0.45305	0.04277	0.04237	0.44885	0.04277	0.04237	0.02957	0.44885	0.42778	0.26180	0.23012
16	370414	371438ELVID	0.42802	0.43561	0.42449	0.64531	0.63373	0.51895	0.45305	0.27126	0.28142	0.54249	0.27126	0.28142	0.30230	0.54249	0.54249	0.44435	0.37176
17	370412	370413	0.41670	0.38784	0.38307	0.58558	0.64645	0.54260	0.43853	0.23933	0.23955	0.47339	0.23933	0.23955	0.23376	0.47339	0.61300	0.37672	0.38462
18	370411	370416	0.55364	0.52483	0.52184	0.65646	0.72550	0.67853	0.58900	0.27126	0.28142	0.54249	0.27126	0.28142	0.30230	0.54249	0.54249	0.44435	0.37176
19	3704909	3704910	0.45141	0.42902	0.44881	0.62799	0.71363	0.54378	0.48505	0.33706	0.30414	0.43462	0.33706	0.30414	0.22035	0.43462	0.61152	0.47411	0.39043
20	3704909	37103P01	0.45141	0.42902	0.44881	0.62799	0.71363	0.54378	0.48505	0.22152	0.20671	0.49084	0.22152	0.20671	0.22035	0.49084	0.61152	0.47411	0.39043
21	37049N4	37049N3	0.32484	0.30660	0.35562	0.50069	0.69173	0.63151	0.51763	0.16952	0.14727	0.37326	0.16952	0.14727	0.14365	0.37326	0.54249	0.43277	0.34519
22	37049N4	37049N6	0.33569	0.30748	0.34636	0.54304	0.63194	0.43691	0.38154	0.27126	0.28142	0.54249	0.27126	0.28142	0.30230	0.54249	0.54249	0.43277	0.34519
23	3704907	3704910	0.33569	0.30748	0.34636	0.54304	0.63194	0.43691	0.38154	0.26348	0.25849	0.58712	0.26348	0.25849	0.29332	0.58712	0.58712	0.41636	0.40227
24	3704907	3704915	0.33569	0.30748	0.34636	0.54304	0.63194	0.43691	0.38154	0.11463	0.10811	0.50954	0.11463	0.10811	0.10829	0.44251	0.50954	0.24432	0.24496
25	3704907	3704913	0.33569	0.30748	0.34636	0.54304	0.63194	0.43691	0.38154	0.33295	0.33512	0.30455	0.33295	0.33512	0.30455	0.54494	0.63653	0.44828	0.41128
26	3704907	3704914	0.33569	0.30748	0.34636	0.54304	0.63194	0.43691	0.38154	0.43691	0.43691	0.38154	0.43691	0.43691	0.38154	0.43691	0.62018	0.51994	0.43520
27	3704907	3704904	0.33569	0.30748	0.34636	0.54304	0.63194	0.43691	0.38154	0.28431	0.30259	0.36316	0.28431	0.30259	0.36316	0.46842	0.62018	0.51994	0.43520
28	3704907	37103P04	0.33569	0.30748	0.34636	0.54304	0.63194	0.43691	0.38154	0.32734	0.32255	0.34255	0.32734	0.32255	0.34255	0.59146	0.61867	0.46403	0.40697
29	3704907	37103P05	0.33569	0.30748	0.34636	0.54304	0.63194	0.43691	0.38154	0.01925	0.01637	0.35807	0.01925	0.01637	0.01401	0.35807	0.51781	0.25360	0.19943
30	37049N2	3704903	0.66749	0.64397	0.63282	0.69323	0.80241	0.78195	0.73126	0.22152	0.20671	0.49084	0.22152	0.20671	0.22035	0.49084	0.61152	0.47411	0.39043
31	37049N2	37049N3	0.66749	0.64397	0.63282	0.69323	0.80241	0.78195	0.73126	0.16952	0.14727	0.37326	0.16952	0.14727	0.14365	0.37326	0.54249	0.43277	0.34519
32	37049N2	37049N6	0.66749	0.64397	0.63282	0.69323	0.80241	0.78195	0.73126	0.16952	0.14727	0.37326	0.16952	0.14727	0.14365	0.37326	0.54249	0.43277	0.34519
33	3704906	3704913	0.39270	0.35771	0.38328	0.57872	0.68669	0.55145	0.48333	0.08246	0.07560	0.44251	0.08246	0.07560	0.07254	0.44251	0.50954	0.24432	0.24496
34	3704906	3704904	0.39270	0.35771	0.38328	0.57872	0.68669	0.55145	0.48333	0.28431	0.30259	0.36316	0.28431	0.30259	0.36316	0.46842	0.62018	0.51994	0.43520
35	3704906	3704911	0.39270	0.35771	0.38328	0.57872	0.68669	0.55145	0.48333	0.08246	0.07560	0.44251	0.08246	0.07560	0.07254	0.44251	0.50954	0.24432	0.24496
36	3704906	37049N6	0.39270	0.35771	0.38328	0.57872	0.68669	0.55145	0.48333	0.16952	0.14727	0.37326	0.16952	0.14727	0.14365	0.37326	0.54249	0.43277	0.34519
37	3704908	3704910	0.33413	0.33469	0.40239	0.58765	0.66399	0.51406	0.46731	0.27126	0.28142	0.54249	0.27126	0.28142	0.30230	0.55439	0.61300	0.37672	0.38462
38	3704908	37103P01	0.33413	0.33469	0.40239	0.58765	0.66399	0.51406	0.46731	0.33706	0.30414	0.60449	0.33706	0.30414	0.34362	0.60449	0.66164	0.41432	0.44625
39	3704908	37103P05	0.33413	0.33469	0.40239	0.58765	0.66399	0.51406	0.46731	0.47451	0.49350	0.73388	0.47451	0.49350	0.52035	0.73388	0.73499	0.61747	0.58050
40	37049N1	3704921	0.47571	0.44071	0.41254	0.56043	0.71674	0.63891	0.47505	0.08503	0.08705	0.30043	0.08503	0.08705	0.09348	0.30043	0.48282	0.30992	0.24143
41	37049N1	3704903	0.47571	0.44071	0.41254	0.56043	0.71674	0.63891	0.47505	0.01925	0.01637	0.35807	0.01925	0.01637	0.01401	0.35807	0.51781	0.25360	0.19943
42	37049N1	3704923	0.47571	0.44071	0.41254	0.56043	0.71674	0.63891	0.47505	0.12520	0.12769	0.31156	0.12520	0.12769	0.13815	0.31156	0.49143	0.37189	0.27474
43	37049N1	3704911	0.47571	0.44071	0.41254	0.56043	0.71674	0.63891	0.47505	0.08246	0.07560	0.44251	0.08246	0.07560	0.07254	0.44251	0.50954	0.24432	0.24496
44	37049N1	3704916	0.47571	0.44071	0.41254	0.56043	0.71674	0.63891	0.47505	0.10571	0.10707	0.48052	0.10571	0.10707	0.10496	0.48052	0.30159	0.25622	0.39043
45	37049N5	37049N3	0.47932	0.45387	0.50541	0.61712	0.76720	0.6969											

district_1 DWP Edit.xlsx

1ST DISTRICT & 11th Precinct

Seq	Inside Precinct					Outside Precinct					Outside Precinct					Any Precincts				
	Inside Precinct	Outside Precinct	BPOP	BVAP	BREG	DREG	GOV08	PRES08	SEN10	BPOP	BVAP	BREG	DREG	GOV08	PRES08	SEN10				
95	3706910	3706909	0.27301	0.27500	0.28355	0.59357	0.54632	0.41622	0.46228	0.21679	0.21529	0.23897	0.59606	0.52145	0.40190	0.43697				
96	3706916	3706909	0.45091	0.44911	0.47037	0.69533	0.66263	0.61712	0.63836	0.21679	0.21529	0.23897	0.59606	0.52145	0.40190	0.43697				
97	3706916	3706908	0.45091	0.44911	0.47037	0.69533	0.66263	0.61712	0.63836	0.22170	0.20782	0.22010	0.40555	0.48265	0.46522	0.40515				
98	370731	370415	0.49578	0.50326	0.46879	0.68327	0.71277	0.63352	0.59709	0.18380	0.19373	0.18191	0.52050	0.52181	0.31455	0.28918				
99	370731	370735	0.49578	0.50326	0.46879	0.68327	0.71277	0.63352	0.59709	0.24740	0.24668	0.26234	0.65631	0.58605	0.43169	0.38173				
100	370731	370733	0.49578	0.50326	0.46879	0.68327	0.71277	0.63352	0.59709	0.38980	0.39497	0.41984	0.61358	0.64022	0.58550	0.55720				
101	370731	370732	0.49578	0.50326	0.46879	0.68327	0.71277	0.63352	0.59709	0.13379	0.12839	0.15392	0.63883	0.45271	0.32932	0.30070				
102	370731	370734N	0.49578	0.50326	0.46879	0.68327	0.71277	0.63352	0.59709	0.21026	0.21120	0.21415	0.44776	0.48144	0.42974	0.32759				
103	370734S	370735	0.46687	0.46711	0.47448	0.68998	0.68984	0.63158	0.60944	0.24740	0.24668	0.26234	0.65631	0.58605	0.43169	0.38173				
104	370734S	370734N	0.46687	0.46711	0.47448	0.68998	0.68984	0.63158	0.60944	0.21026	0.21120	0.21415	0.44776	0.48144	0.42974	0.32759				
105	37077ANNT	37181WATK	0.56519	0.59430	0.66445	0.76967	0.77919	0.77612	0.74221	0.03281	0.03571	0.03622	0.53521	0.34048	0.24178	0.30797				
106	37077SALM	37077SASS	0.31231	0.32106	0.32173	0.64530	0.52686	0.48142	0.44016	0.03281	0.03571	0.03622	0.53521	0.34048	0.24178	0.30797				
107	37077SALM	37181WATK	0.31231	0.32106	0.32173	0.64530	0.52686	0.48142	0.44016	0.14269	0.14142	0.14494	0.39887	0.41889	0.43356	0.39114				
108	37077TYHO	3706328	0.15271	0.15383	0.16267	0.46645	0.42815	0.36490	0.32849	0.33773	0.35681	0.37332	0.32854	0.37206	0.37056	0.45624				
109	37077TYHO	37077BERE	0.15271	0.15383	0.16267	0.46645	0.42815	0.36490	0.32849	0.09964	0.09990	0.10629	0.32854	0.37206	0.37056	0.45624				
110	37077TYHO	37077WILT	0.15271	0.15383	0.16267	0.46645	0.42815	0.36490	0.32849	0.32849	0.29591	0.28619	0.30711	0.53278	0.53394	0.47375				
111	37077TYHO	37077CRDM	0.15271	0.15383	0.16267	0.46645	0.42815	0.36490	0.32849	0.13144	0.13483	0.12740	0.44247	0.42757	0.35120	0.34649				
112	37077TYHO	37145MTT2	0.15271	0.15383	0.16267	0.46645	0.42815	0.36490	0.32849	0.33165	0.33773	0.35681	0.63313	0.56529	0.50919	0.45624				
113	37077WOEL	37077BERE	0.52507	0.51913	0.53067	0.72579	0.72338	0.68799	0.66894	0.30025	0.30153	0.35589	0.64016	0.60375	0.52776	0.52369				
114	37077WOEL	37077SASS	0.52507	0.51913	0.53067	0.72579	0.72338	0.68799	0.66894	0.09644	0.09990	0.10629	0.32854	0.37206	0.37056	0.30831				
115	37077CORI	37077WILT	0.29947	0.30472	0.36428	0.66819	0.56793	0.50136	0.48249	0.03281	0.03571	0.03622	0.53521	0.34048	0.24178	0.30797				
116	37077CORI	37181WATK	0.29947	0.30472	0.36428	0.66819	0.56793	0.50136	0.48249	0.35555	0.34918	0.37132	0.62627	0.56424	0.48820	0.47350				
117	37077CORI	37181KTTT	0.41329	0.43042	0.36082	0.60457	0.58897	0.55988	0.52568	0.14269	0.14142	0.14494	0.39887	0.41889	0.43356	0.39114				
118	37077BTRN	3706328	0.41329	0.43042	0.36082	0.60457	0.58897	0.55988	0.52568	0.29591	0.28619	0.30711	0.53278	0.53394	0.41889	0.47375				
119	37077BTRN	37077CRDM	0.41329	0.43042	0.36082	0.60457	0.58897	0.55988	0.52568	0.30465	0.27925	0.32019	0.70251	0.61310	0.39225	0.45843				
120	37079BULL	37079BEAR	0.33756	0.34187	0.40499	0.67577	0.64522	0.53217	0.50660	0.17142	0.16965	0.17177	0.38472	0.40206	0.28405	0.25392				
121	37079BULL	3719102	0.33756	0.34187	0.40499	0.67577	0.64522	0.53217	0.50660	0.37043	0.36310	0.41103	0.59632	0.62581	0.52929	0.54294				
122	37079BULL	37195PRST	0.33756	0.34187	0.40499	0.67577	0.64522	0.53217	0.50660	0.30465	0.27925	0.32019	0.70251	0.61310	0.39225	0.45843				
123	37079SHIN	37079BEAR	0.28298	0.27149	0.30801	0.64669	0.55762	0.39074	0.39060	0.15549	0.15816	0.17790	0.39765	0.41586	0.27959	0.23498				
124	37079SHIN	3719115	0.28298	0.27149	0.30801	0.64669	0.55762	0.39074	0.39060	0.30465	0.27925	0.32019	0.70251	0.61310	0.39225	0.45843				
125	37079SH1	37079BEAR	0.41909	0.40010	0.43020	0.73165	0.68455	0.54880	0.55556	0.30465	0.27925	0.32019	0.70251	0.61310	0.39225	0.45843				
126	37079SH1	37079MAUR	0.41909	0.40010	0.43020	0.73165	0.68455	0.54880	0.55556	0.47383	0.48173	0.41221	0.74261	0.63127	0.48588	0.47208				
127	37079SUGG	37079MAUR	0.39445	0.38219	0.40105	0.66178	0.61696	0.46712	0.46813	0.47383	0.48173	0.41221	0.74261	0.63127	0.48588	0.47208				
128	37079SUGG	37079HOO	0.39445	0.38219	0.40105	0.66178	0.61696	0.46712	0.46813	0.29838	0.29296	0.31277	0.61406	0.56203	0.40525	0.39433				
129	37079ARBA	37079BEAR	0.46440	0.43889	0.46593	0.68901	0.67618	0.54429	0.50389	0.30465	0.27925	0.32019	0.70251	0.61310	0.39225	0.45843				
130	37079ARBA	371071	0.46440	0.43889	0.46593	0.68901	0.67618	0.54429	0.50389	0.23554	0.20969	0.22972	0.45295	0.48751	0.32903	0.26501				
131	37091CM	370733	0.37690	0.38298	0.40839	0.67550	0.64396	0.56156	0.59903	0.38980	0.39497	0.41984	0.61358	0.64022	0.58550	0.55720				
132	37091CM	370732	0.37690	0.38298	0.40839	0.67550	0.64396	0.56156	0.59903	0.13379	0.12839	0.15392	0.63883	0.45271	0.32932	0.30070				
133	37091CO	370732	0.70737	0.68642	0.72100	0.79937	0.85430	0.81004	0.84266	0.13379	0.12839	0.15392	0.63883	0.45271	0.32932	0.30070				
134	37091WN	370732	0.66143	0.64878	0.70215	0.84158	0.83559	0.80577	0.76102	0.13379	0.12839	0.15392	0.63883	0.45271	0.32932	0.30070				
135	37091HV	370415	0.54046	0.52413	0.53974	0.77461	0.69231	0.60672	0.56069	0.13379	0.12839	0.15392	0.63883	0.45271	0.32932	0.30070				
136	37091HV	370732	0.54046	0.52413	0.53974	0.77461	0.69231	0.60672	0.56069	0.13379	0.12839	0.15392	0.63883	0.45271	0.32932	0.30070				
137	37107SH	3704910	0.11863	0.12593	0.13828	0.44687	0.46311	0.25470	0.22823	0.27126	0.28142	0.30230	0.55439	0.61300	0.37672	0.38462				
138	37107SH	37103P01	0.11863	0.12593	0.13828	0.44687	0.46311	0.25470	0.22823	0.08716	0.03706	0.34362	0.60449	0.41432	0.44625	0.44625				
139	37107SH	37107SW	0.11863	0.12593	0.13828	0.44687	0.46311	0.25470	0.22823	0.37116	0.37116	0.37116	0.37116	0.37116	0.37116	0.37116				
140	37107SH	37107C	0.11863	0.12593	0.13828	0.44687	0.46311	0.25470	0.22823	0.41151	0.39391	0.41926	0.60121	0.64237	0.49496	0.44802				
141	37107NH	37107I	0.40700	0.40516	0.46013	0.64773	0.64486	0.53213	0.50860	0.23554	0.20969	0.22972	0.45295	0.48751	0.32903	0.26501				

Seq	InsidePrecinct	OutsidePrecinct	Inside Precinct					Outside Precinct								
			BPOP	BVAP	BREG	DREG	GOV08	PRES08	SEN10	BPOP	BVAP	BREG	DREG	GOV08	PRES08	SEN10
142	37107MH	37107FC	0.40700	0.40516	0.46013	0.64773	0.64486	0.53213	0.50860	0.18447	0.17170	0.15250	0.43374	0.47678	0.27176	0.23333
143	37107MH	37107T2	0.40700	0.40516	0.46013	0.64773	0.64486	0.53213	0.50860	0.05893	0.05607	0.06908	0.43941	0.49664	0.23205	0.18993
144	37107MH	3719115	0.40700	0.40516	0.46013	0.64773	0.64486	0.53213	0.50860	0.15549	0.15816	0.17730	0.39765	0.41586	0.27959	0.23498
145	37107K7	37107SW	0.80886	0.79256	0.80761	0.78579	0.87275	0.84321	0.82378	0.08711	0.09290	0.09100	0.42085	0.48309	0.21534	0.22145
146	37107K7	37107FC	0.80886	0.79256	0.80761	0.78579	0.87275	0.84321	0.82378	0.41151	0.39391	0.41926	0.60121	0.64237	0.49496	0.44480
147	37107K9	37107FC	0.48844	0.46597	0.44915	0.66737	0.69421	0.55734	0.57561	0.18447	0.17170	0.15250	0.43374	0.47678	0.27176	0.23338
148	37107K9	37107K4	0.48844	0.46597	0.44915	0.66737	0.69421	0.55734	0.57561	0.28342	0.27450	0.21057	0.56595	0.59521	0.38649	0.38677
149	37107K1	37107SW	0.96298	0.96779	0.96559	0.84562	0.97735	0.98833	0.95918	0.08711	0.09290	0.09100	0.42085	0.48309	0.21534	0.22145
150	37107K1	37107N	0.96298	0.96779	0.96559	0.84562	0.97735	0.98833	0.95918	0.24761	0.22986	0.25093	0.54450	0.56061	0.33430	0.30958
151	37107K6	37107C	0.85644	0.83463	0.85060	0.83819	0.90353	0.88153	0.84615	0.41151	0.39391	0.41926	0.60121	0.64237	0.49496	0.44480
152	37107K8	37107SW	0.98276	0.98390	0.98182	0.91082	0.98788	0.99174	0.98399	0.08711	0.09290	0.09100	0.42085	0.48309	0.21534	0.22145
153	37107K3	37107N	0.61090	0.57300	0.60671	0.69736	0.78322	0.71059	0.69732	0.24761	0.22986	0.25093	0.54450	0.56061	0.33430	0.30958
154	37107K3	37107FC	0.61090	0.57300	0.60671	0.69736	0.78322	0.71059	0.69732	0.18447	0.17170	0.15250	0.43374	0.47678	0.27176	0.23338
155	37107K3	37107K4	0.61090	0.57300	0.60671	0.69736	0.78322	0.71059	0.69732	0.28342	0.27450	0.21057	0.56595	0.59521	0.38649	0.38677
156	37107K5	37107K4	0.60108	0.57028	0.54803	0.73048	0.77811	0.66897	0.67544	0.30137	0.28682	0.29936	0.61146	0.62802	0.38679	0.41045
157	37117HM	37117PP	0.58963	0.56728	0.57684	0.74134	0.77196	0.64590	0.62529	0.30137	0.28682	0.29936	0.61146	0.62802	0.38679	0.41045
158	37117W2	37117PP	0.53602	0.50372	0.52728	0.71313	0.75786	0.62797	0.61354	0.32079	0.31520	0.34872	0.60511	0.66189	0.44699	0.46288
159	37117W2	37117CR	0.53602	0.50372	0.52728	0.71313	0.75786	0.62797	0.61354	0.30137	0.28682	0.29936	0.61146	0.62802	0.38679	0.41045
160	37117R2	37117PP	0.64910	0.63346	0.64957	0.77076	0.77539	0.68695	0.63748	0.55425	0.54106	0.57555	0.74929	0.71373	0.62665	0.58154
161	37117R2	37117CR	0.64910	0.63346	0.64957	0.77										

1st District Ballot Precincts

Seq	InsidePrecinct	OutsidePrecinct	Inside Precinct					Outside Precinct					SEN10	PRES08	SEN10	PRES08
			BPOP	BVAP	BREG	DREG	GOV08	PRES08	SEN10	BPOP	BVAP	BREG				
189	371270002	371270026	0.47607	0.48299	0.47239	0.60911	0.61998	0.56189	0.53938	0.09536	0.09210	0.08556	0.35810	0.33255	0.21737	0.20982
190	371390MH	37139NIX	0.27564	0.27241	0.30070	0.49350	0.59651	0.48642	0.46818	0.17568	0.17565	0.18656	0.42128	0.48502	0.36287	0.35260
191	371390MH	37143NICANO	0.27564	0.27241	0.30070	0.49350	0.59651	0.48642	0.46818	0.17568	0.17565	0.18656	0.42128	0.48502	0.36287	0.35260
192	371390MH	37143NEW-HO	0.27564	0.27241	0.30070	0.49350	0.59651	0.48642	0.46818	0.17568	0.17565	0.18656	0.42128	0.48502	0.36287	0.35260
193	371393-A	37139NIX	0.49706	0.47580	0.49041	0.63053	0.73090	0.66703	0.61588	0.17138	0.17792	0.18038	0.43707	0.48539	0.36708	0.40336
194	371391-A	37029CH	0.43541	0.42458	0.39174	0.56838	0.68706	0.63710	0.58643	0.14338	0.14773	0.18358	0.44503	0.48871	0.34395	0.33731
195	37143PARKVI	37143BELVID	0.33074	0.32313	0.33389	0.58292	0.61675	0.48870	0.45455	0.18571	0.19843	0.23907	0.57580	0.55508	0.37370	0.37413
196	37143PARKVI	37143NICANO	0.33074	0.32313	0.33389	0.58292	0.61675	0.48870	0.45455	0.18571	0.19843	0.23907	0.57580	0.55508	0.37370	0.37413
197	37143PARKVI	37143BETHEL	0.33074	0.32313	0.33389	0.58292	0.61675	0.48870	0.45455	0.18571	0.19843	0.23907	0.57580	0.55508	0.37370	0.37413
198	37143PARKVI	37143NEW-HO	0.33074	0.32313	0.33389	0.58292	0.61675	0.48870	0.45455	0.18571	0.19843	0.23907	0.57580	0.55508	0.37370	0.37413
199	37143EAST-H	370416	0.53689	0.49869	0.46786	0.68715	0.70255	0.61486	0.52670	0.23933	0.23933	0.23933	0.74929	0.55508	0.37370	0.37413
200	37143EAST-H	37143BETHEL	0.53689	0.49869	0.46786	0.68715	0.70255	0.61486	0.52670	0.23933	0.23933	0.23933	0.74929	0.55508	0.37370	0.37413
201	37143WEST-H	37143BELVID	0.26985	0.25325	0.23516	0.58906	0.64505	0.46167	0.40432	0.18571	0.19843	0.23907	0.57580	0.55508	0.37370	0.37413
202	371470301	371470401	0.48477	0.48381	0.59058	0.69876	0.74817	0.68736	0.65302	0.54255	0.54106	0.57555	0.74929	0.55508	0.37370	0.37413
203	371471504	371470101	0.65913	0.57753	0.59717	0.66535	0.78946	0.80108	0.79564	0.14339	0.12285	0.12119	0.35696	0.43424	0.36064	0.29624
204	371471501	371471508	0.75236	0.76761	0.77282	0.82294	0.92387	0.93569	0.91614	0.10813	0.09088	0.09742	0.37836	0.55820	0.57724	0.49111
205	371471101	37013CHOCO	0.34403	0.33245	0.36240	0.57748	0.60854	0.49592	0.43381	0.11565	0.11159	0.10717	0.39995	0.39086	0.24038	0.19613
206	371471101	371471102B	0.34403	0.33245	0.36240	0.57748	0.60854	0.49592	0.43381	0.11565	0.11159	0.10717	0.39995	0.39086	0.24038	0.19613
207	371471101	371471102B	0.34403	0.33245	0.36240	0.57748	0.60854	0.49592	0.43381	0.11565	0.11159	0.10717	0.39995	0.39086	0.24038	0.19613
208	371470901	370650801	0.32670	0.31909	0.32976	0.57738	0.56645	0.45719	0.42857	0.30619	0.30156	0.32428	0.59736	0.54069	0.42222	0.43594
209	37181WH2	37181WATK	0.52235	0.48525	0.46000	0.75222	0.62500	0.58104	0.53070	0.03281	0.03571	0.03622	0.53521	0.60375	0.52776	0.52369
210	37181WH2	37181WATK	0.52235	0.48525	0.46000	0.75222	0.62500	0.58104	0.53070	0.03281	0.03571	0.03622	0.53521	0.60375	0.52776	0.52369
211	37181MIDD	371815CRK	0.46817	0.47635	0.49467	0.69162	0.73905	0.68124	0.62667	0.35555	0.34918	0.37132	0.62627	0.56424	0.48820	0.47350
212	37181MIDD	371815CRK	0.46817	0.47635	0.49467	0.69162	0.73905	0.68124	0.62667	0.35555	0.34918	0.37132	0.62627	0.56424	0.48820	0.47350
213	37181MIDD	371815CRK	0.46817	0.47635	0.49467	0.69162	0.73905	0.68124	0.62667	0.35555	0.34918	0.37132	0.62627	0.56424	0.48820	0.47350
214	37181MIDD	371815CRK	0.46817	0.47635	0.49467	0.69162	0.73905	0.68124	0.62667	0.35555	0.34918	0.37132	0.62627	0.56424	0.48820	0.47350
215	37181SH2	37181KIT	0.39385	0.37879	0.39385	0.37879	0.39385	0.37879	0.39385	0.37879	0.39385	0.37879	0.39385	0.37879	0.39385	0.37879
216	37181SH2	37181KIT	0.39385	0.37879	0.39385	0.37879	0.39385	0.37879	0.39385	0.37879	0.39385	0.37879	0.39385	0.37879	0.39385	0.37879
217	37181HTOP	37181WATK	0.57929	0.57311	0.58435	0.76284	0.73684	0.69586	0.67991	0.35555	0.34918	0.37132	0.62627	0.56424	0.48820	0.47350
218	37181HTOP	37181KIT	0.57929	0.57311	0.58435	0.76284	0.73684	0.69586	0.67991	0.35555	0.34918	0.37132	0.62627	0.56424	0.48820	0.47350
219	37181EH2	371815CRK	0.53968	0.51012	0.58592	0.75983	0.76376	0.70159	0.69737	0.40530	0.38786	0.43219	0.67232	0.64626	0.56093	0.54514
220	371856	37069912	0.60665	0.58085	0.66897	0.81331	0.80075	0.76989	0.78218	0.34700	0.34122	0.36124	0.58915	0.60328	0.51974	0.51351
221	371856	371815CRK	0.60665	0.58085	0.66897	0.81331	0.80075	0.76989	0.78218	0.34700	0.34122	0.36124	0.58915	0.60328	0.51974	0.51351
222	37187LM	37013PANTE	0.57430	0.55391	0.58574	0.78456	0.77952	0.66849	0.62587	0.31975	0.33693	0.34039	0.57498	0.52768	0.37546	0.34219
223	37187LM	370416	0.57430	0.55391	0.58574	0.78456	0.77952	0.66849	0.62587	0.31975	0.33693	0.34039	0.57498	0.52768	0.37546	0.34219
224	37187LM	370958M	0.57430	0.55391	0.58574	0.78456	0.77952	0.66849	0.62587	0.31975	0.33693	0.34039	0.57498	0.52768	0.37546	0.34219
225	37187LM	37187SK	0.57430	0.55391	0.58574	0.78456	0.77952	0.66849	0.62587	0.31975	0.33693	0.34039	0.57498	0.52768	0.37546	0.34219
226	3719117	3719123	0.74654	0.68279	0.84024	0.78178	0.92235	0.94977	0.92217	0.24480	0.23143	0.26976	0.41156	0.51658	0.46753	0.38277
227	3719117	3719128	0.74654	0.68279	0.84024	0.78178	0.92235	0.94977	0.92217	0.24480	0.23143	0.26976	0.41156	0.51658	0.46753	0.38277
228	3719117	3719109	0.74654	0.68279	0.84024	0.78178	0.92235	0.94977	0.92217	0.24480	0.23143	0.26976	0.41156	0.51658	0.46753	0.38277
229	3719117	3719116	0.74654	0.68279	0.84024	0.78178	0.92235	0.94977	0.92217	0.24480	0.23143	0.26976	0.41156	0.51658	0.46753	0.38277
230	3719126	3719128	0.37738	0.38603	0.47893	0.58407	0.64156	0.60767	0.52031	0.28254	0.25594	0.29123	0.45260	0.51885	0.44096	0.36123
231	3719126	3719116	0.37738	0.38603	0.47893	0.58407	0.64156	0.60767	0.52031	0.28254	0.25594	0.29123	0.45260	0.51885	0.44096	0.36123
232	3719127	3719128	0.54569	0.55123	0.66459	0.67817	0.77778	0.75873	0.75279	0.28254	0.25594	0.29123	0.45260	0.51885	0.44096	0.36123
233	3719127	3719116	0.54569	0.55123	0.66459	0.67817	0.77778	0.75873	0.75279	0.28254	0.25594	0.29123	0.45260	0.51885	0.44096	0.36123
234	3719111	3719105	0.46032	0.41910	0.41675	0.58088	0.57697	0.54534	0.46542	0.13691	0.13647	0.13264	0.33631	0.27050	0.23002	0.23002
235	3719111	3719106	0.46032	0.41910	0.41675	0.58088	0.57697	0.54534	0.46542	0.13691	0.13647	0.13264	0.33631	0.27050	0.23002	0.23002

Seq	Inside Precinct			Outside Precinct												
	BPOP	BVAP	BREG	DREG	GOV08	PRES08	SEN10	BPOP	BVAP	BREG	DREG	GOV08	PRES08	SEN10		
236	3719110	3719109	0.74354	0.71095	0.70472	0.71734	0.76167	0.77617	0.67651	0.23763	0.25870	0.14162	0.37446	0.37227	0.27651	0.22272
237	3719110	3719105	0.74354	0.71095	0.70472	0.71734	0.76167	0.77617	0.67651	0.13691	0.13647	0.13264	0.32120	0.33651	0.27050	0.23002
238	3719119	3719123	0.66680	0.72304	0.84347	0.80918	0.91262	0.93950	0.92507	0.24480	0.23143	0.26976	0.41156	0.51658	0.46753	0.38277
239	3719107	3719115	0.21594	0.21927	0.22991	0.41991	0.44991	0.36293	0.32447	0.15549	0.15816	0.17730	0.39765	0.41586	0.27959	0.23498
240	3719107	3719102	0.21594	0.21927	0.22991	0.41991	0.44991	0.36293	0.32447	0.17142	0.16965	0.17177	0.38472	0.40206	0.28405	0.25392
241	3719107	3719106	0.21594	0.21927	0.22991	0.41991	0.44991	0.36293	0.32447	0.28703	0.28170	0.30227	0.47731	0.50459	0.42083	0.37739
242	3719122	3719123	0.34151	0.30729	0.29114	0.54661	0.53375	0.47619	0.40362	0.24480	0.23143	0.26976	0.41156	0.51658	0.46753	0.38277
243	3719121	3719123	0.55685	0.52717	0.51018	0.64310	0.65011	0.64377	0.59043	0.24480	0.23143	0.26976	0.41156	0.51658	0.46753	0.38277
244	3719112	3719106	0.36341	0.33697	0.34776	0.50390	0.55475	0.49976	0.46119	0.28703	0.28170	0.30227	0.47731	0.50459	0.42083	0.37739
245	3719113	3719123	0.46420	0.47842	0.53916	0.58817	0.68198	0.67033	0.66521	0.24480	0.23143	0.26976	0.41156	0.51658	0.46753	0.38277
246	3719113	3719114	0.46420	0.47842	0.53916	0.58817	0.68198	0.67033	0.66521	0.14154	0.13996	0.11634	0.36433	0.33782	0.25770	0.19351
247	37195PRWC	37195PRWK	0.72220	0.72408	0.80197	0.81308	0.88930	0.88929	0.87838	0.16341	0.15679	0.14799	0.50836	0.40278	0.35104	0.34457
248	37195PRWE	37195PRTO	0.58120	0.56553	0.60922	0.70013	0.73954	0.71190	0.69333	0.39253	0.37450	0.41223	0.58035	0.56588	0.51829	0.47936
249	37195PRWN	37195PRST	0.83682	0.85178	0.91952	0.87192	0.94448	0.95460	0.94251	0.37043	0.36310	0.41273	0.43709	0.37648	0.27787	0.29570
250	37195PRWH	37195PRBL	0.78490	0.79903	0.93657	0.86323	0.96237	0.95799	0.96507	0.13310	0.12703	0.14082	0.43709	0.37648	0.27787	0.29570
251	37195PRWH	37195PRST	0.78490	0.79903	0.93657	0.86323	0.96237	0.95799	0.96507	0.37043	0.36310	0.41103	0.59632	0.62581	0.52929	0.54294
252	37195PRWI	37195PRBL	0.53782	0.51473	0.56969	0.69483	0.69666	0.67734	0.67542	0.13310	0.12703	0.14082	0.43709	0.37648	0.27787	0.29570
253	37195PRWR	37195PRTO	0.64443	0.66299	0.84594	0.81927	0.90843	0.92874	0.92119	0.39253	0.37450	0.41223	0.58035	0.56588	0.51829	0.47936

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA
DURHAM DIVISION
Civil Action 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.)

**ORDER GRANTING
DEFENDANTS' CONSENT
MOTION FOR LEAVE TO FILE A
SUR-REPLY**

On December 24, 2013, Plaintiffs filed a motion for a preliminary injunction and supporting memorandum of law. Defendants filed a response to Plaintiffs' motion on January 17, 2014. Plaintiffs filed a Reply on February 3, 2014.

The matter is now before the court on Defendants' Consent Motion for Leave to File a Sur-Reply. For the reasons stated in Defendants' motion, the Court finds that there is good cause to allow Defendants leave to file a Sur-Reply in Opposition to Plaintiffs' Motion for a Preliminary Injunction.

IT IS THEREFORE ORDERED that the Sur-Reply attached to Defendants' motion as Exhibit A is deemed filed with the Court and will be considered by the Court in ruling on Plaintiffs' motion for a preliminary injunction.

This the ____ day of February, 2014.

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