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1. I have been asked to review the expert reports submitted by Sean Trende, Thomas Fetzer, and Janet Thornton. In the sections that follow, I provide a summary of the methodological and substantive limitations of these reports.

I. The Expert Report of Sean Trende

2. Below, I address the two opinions expressed in Mr. Trende’s expert report starting with his second opinion, concerning voting reforms and turnout, which appears to be the primary focus of his report.

A. “Opinion 2” in Mr. Trende’s Report

Overview

3. Mr. Trende’s second opinion is that “the data do not consistently support the turnout effects predicted by the plaintiffs.” Decl. of Sean P. Trende, Apr. 25, 2014 (“Trende Rep.”), at 15. Broadly speaking, Mr. Trende makes several errors in this section that render his opinion methodologically invalid. I address the theoretical framework, methodology, and conclusions of his report in turn below.

4. Broadly, Mr. Trende attacks a straw man turnout “theory” that I do not employ in my expert report. My report is chiefly concerned with early voting usage, not overall voter turnout, and the possibility that reductions to early voting may differentially affect voters of different racial groups. Mr. Trende constantly substitutes a supposed “theory” of turnout when one does not exist, without considering my main point: that there exist differential usage
rates of early voting by African-American and White voters, and that, therefore, reductions to early voting will affect these groups differently.

5. Mr. Trende’s report also suffers from a series of methodological defects. First, Mr. Trende neglects to weight his data correctly. He notes that data derived from the Current Population Survey is “imperfect” (¶ 70), but then relies almost exclusively on that data for much of his analysis, without appropriately weighting the data to correct for the very biases in the data that he identifies in paragraph 70 of his report.

6. Second, Mr. Trende inappropriately employs a single variable approach to measure the relationship between voting reforms and turnout. He correctly notes (¶ 64) that voter turnout is a complex phenomenon, impacted by both laws and campaigns, but then attempts to use turnout data to explain the effect (or supposed non-effect) of a single variable—the number of legal reforms adopted by states—in states such as Mississippi and North Carolina. Given the multitude of factors that affect turnout, one cannot simply compare states’ relative turnout levels to determine the effects of a single variable without, at a minimum, making certain that major determinants of turnout—including campaign competitiveness pointed to by Mr. Trende—are also in the model.

7. Third, Mr. Trende has not conducted a valid time series analysis. Rather than measuring turnout over a series of time, he simply cherry picks data points, estimating two regression models of turnout, the first comparing the presidential years of 2000 and 2012 and the second comparing the two midterm years of 1998 and 2010. A valid statistical analysis of these data would consider all of the relevant intervening time points (e.g., for Presidential elections, 2000, 2004, 2008, and 2012; and for midterms, 1998, 2002, 2006, and 2010). As noted above, the analysis fails to consider at all that these data constitute a time series of elections and that laws are adopted over time (not all at once).

8. Fourth, he employs an overly stringent 5% statistical significance threshold even though he is estimating a model with only 33 cases and includes multiple controls, further undercutting the ability to extract statistically significant patterns, and fails to report any of his statistical estimates, making it impossible to evaluate the scientific validity of his results.

9. Finally, Mr. Trende’s alternate explanation for the increase in African-American turnout in North Carolina (namely, campaign effects and demographic changes) is not supported by evidence. While such changes undoubtedly have some effects on turnout, they cannot fully explain changes in voting patterns—and, in particular, changes in early voting usage—that have occurred in North Carolina in recent years.
10. I treat each of these concerns, and several others, in detail below.

Flaws in Mr. Trende’s Theory of Turnout

11. Mr. Trende makes multiple references to a theory of voter turnout or voter participation, purportedly drawing these from multiple expert reports, including my own. The problem is that there is no general theory of voter turnout in my expert report—my report is concerned with differential usage rates of early in-person voting by African-American and White North Carolinians. The point of my report is that African Americans use the early in-person voting option at higher rates than White voters, and are relatively more likely to cast those early in-person votes during the first week of early in-person voting. African Americans are also more likely to take advantage of same-day registration during the early voting period than are White voters. Therefore, there will be a disparate impact on African Americans if the period of early in-person voting is shortened and if same-day registration is eliminated.

12. Mr. Trende’s report does not call those conclusions into question. That is, even if Mr. Trende were correct that the addition of reforms like early voting and same-day registration has a negligible effect on turnout (and, as I explain below, his analysis is methodologically and factually flawed in a number of respects, rendering it unreliable), it is not methodologically sound simply to assume that the removal of those same reforms will have little to no impact on voters in terms of the burdens they face in participating, or on turnout more generally, particularly after voters have become habituated to reliance upon these channels of participation. His analysis is simply directed at a different question than the one with which we are presented here.

Mr. Trende’s Analysis of Turnout Data – General Comments on Data Sources and Methodology

13. Leaving aside the theoretical flaw underpinning his analysis, Mr. Trende’s assertion that there is no relationship between turnout and what he terms “permissive” voting reforms, based on series of comparisons of overall turnout in various states, is not supported by the data in his own report. The quantitative analysis purportedly underlying his conclusion is severely flawed and would not withstand peer review, for several reasons.

14. First, Mr. Trende’s report relies exclusively on unweighted survey response data from the Current Population Survey (“CPS”). Mr. Trende notes, however, that the CPS data is “admittedly imperfect” in several respects (¶ 70). Because CPS survey respondents are not always a representative sample, fail to answer all questions, and/or sometimes misreport answers to survey questions, the results should be weighted properly. Imperfections in the data are precisely why, when I used CPS data in my report, I utilized scientifically validated response correction weights. See Amended Rule 26(A)(2)(B)
Expert Report & Decl. of Paul Gronke, PhD, Apr. 14, 2014 ("Gronke Rep.") at 6 n.10. This is a relatively simple procedure and conforms to prevailing standards among political scientists. It is unclear why Mr. Trende failed to weight his data appropriately. Furthermore, it is unclear why Mr. Trende did not examine actual validated elections data from North Carolina’s State Board of Elections (or other states). As a peer reviewer, if I were to receive a paper based exclusively on unweighted CPS data, I would return it to the author asking him or her to re-submit the paper after properly weighting the data.

15. Next, although Mr. Trende acknowledges that voter turnout is a complex phenomenon, impacted both by laws and by campaigns (a point that any political scientist would agree with), he then proceeds to employ an overly simplistic model of turnout throughout much of his report, contradicting his own methodological assertion.

16. For example, in Mr. Trende’s report section titled “The Current Population Survey, and a Comparison of Two States” (p. 17), he makes much of a comparison of overall voter turnout trends (not early voting) in Mississippi and North Carolina. Trende admits this “is not meant as a dispositive analysis” (¶ 81), but by his own standards, it is a useless exercise. There are many, many differences between Mississippi and North Carolina, including the many demographic changes experienced by North Carolina and detailed by Mr. Trende himself. These differences confound Mr. Trende’s simplistic attempt to measure the turnout effects of the legal reforms in North Carolina by comparing the two states’ respective turnout rates.

17. Mr. Trende commits the same fallacy in the next section, “Historic African American Participation Nationally, and within North Carolina” (p. 21). Here we learn that African-American participation has been increasing over time nationally as well as in North Carolina (see Figure 9). In fact, Mr. Trende points out that 84% of the variance in African-American participation over time in North Carolina is “explained” by the national trend (¶ 90).

18. There are two problems with this analysis that render it essentially meaningless. First, the “national trend” used as an independent variable in the regression referred to in paragraph 90 contains North Carolina itself in its total. That is, he compares data from North Carolina to another a pool of data that includes North Carolina itself, thus inflating the correlation.

19. Second and more seriously, the regression coefficient produced by a bivariate (one variable) regression is really nothing more than a correlation

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1 I can only assume this is a regression analogous to the one described in paragraph 87, but he does not state this explicitly in paragraph 90.
(the regression coefficient is a simple mathematical transformation of the correlation coefficient). This is not a multivariate analysis that attempts to control for other variables that could potentially affect turnout, confounding his analysis. The national trend does not “explain” the North Carolina trend, if by “explain” Mr. Trende means “causes,” as per conventional scientific usage. The trends are correlated, but correlation does not imply causation. And, even if Mr. Trende is correct that 84% of the trend is “caused” by national trends, a remaining 16% is not explained by national trends, and may be caused by voting law changes. An analysis along these lines does not comport with prevailing standards in the field of political science.

Mr. Trende’s Comparison of Mississippi and North Carolina Data

20. Turning more directly to Mr. Trende’s two-state comparison between Mississippi and North Carolina, even leaving aside the basic methodological flaws (described above), Mr. Trende’s claim that “African American participation increased in Mississippi at a similar rate” to that of North Carolina between 2000 and 2012 (¶ 78) is not based on a valid scientific comparison and would be unacceptable in a peer review setting. As explained below, Mr. Trende suppresses important patterns in the data revealing substantial deviations between patterns in the two states.

21. Although Mr. Trende's Figure 6 does not set forth precise numbers, the unweighted CPS data regarding African-American turnout on which he relies can be summarized as follows:

<table>
<thead>
<tr>
<th></th>
<th>2000 African-American Turnout</th>
<th>2012 African-American Turnout</th>
<th>Total Change</th>
<th>Rate of Increase</th>
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<tr>
<td>Mississippi</td>
<td>58.5%</td>
<td>82.3%</td>
<td>+23.8 percentage points</td>
<td>40.7%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>47.6%</td>
<td>78.8%</td>
<td>+31.2 percentage points</td>
<td>65.5%</td>
</tr>
</tbody>
</table>

2 If the Y and X variables are first standardized (divided by their standard errors), then b (the regression coefficient) will be identical to r (Pearson’s correlation).
22. Contrary to Mr. Trende’s assertions, these numbers reveal substantial differences in both the total growth and the growth rate in African-American turnout in North Carolina, as compared to that in Mississippi. Between 2000 (before the provisions at issue were adopted) and 2012, African-American turnout grew 31.2 percentage points in North Carolina, as compared to only 23.8 percentage points in Mississippi. Thus, total growth in African-American turnout in North Carolina was 131% that of Mississippi. Moreover, the percent increase of African-American turnout in North Carolina from 2000 to 2012 was 65.5%, as compared to only 40.7% in Mississippi. In other words, the growth rate of African-American turnout in North Carolina was 160% of that of Mississippi. These are substantial differences between North Carolina and Mississippi in the growth in African-American turnout from 2000 to 2012, and not at all a “similar rate” as asserted by Mr. Trende.

23. Furthermore, even if we accept the validity of Mr. Trende’s approach, adding just one additional state illustrates how Mr. Trende appears to have cherry picked states. Let’s imagine a “State C.” It is located in the South, and, like Mississippi, it has a large African-American population. And, by Mr. Trende’s own categorization contained in his Exhibits 3-7, it scores a “0” on the number of voting reforms, just like Mississippi. Therefore, if Mr. Trende’s theory of registration and turnout is accurate, and voting laws make no difference and national trends explain everything, then trends in African-American turnout in “State C” should follow Mississippi closely.

24. As shown in the chart below, “State C” happens to be located just to the east of Mississippi. State C is called “Alabama,” and African-American registration and African-American turnout in that state do not track or converge on the Mississippi totals. Registration and turnout in Alabama tracked Mississippi in 2000 and 2004 and has lagged badly in 2008 and 2012.
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<tbody>
<tr>
<td>Mississippi</td>
<td>58.5%</td>
<td>66.6%</td>
<td>73.1%</td>
<td>82.3%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>47.6%</td>
<td>62.9%</td>
<td>66.9%</td>
<td>78.8%</td>
</tr>
<tr>
<td>Alabama</td>
<td>57.2%</td>
<td>64.2%</td>
<td>62.9%</td>
<td>63.2%</td>
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</table>

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<tr>
<td>Mississippi</td>
<td>73.7%</td>
<td>76.2%</td>
<td>81.9%</td>
<td>90.4%</td>
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<tr>
<td>North Carolina</td>
<td>62.9%</td>
<td>70.4%</td>
<td>70.9%</td>
<td>83.7%</td>
</tr>
<tr>
<td>Alabama</td>
<td>72.0%</td>
<td>73.2%</td>
<td>70.1%</td>
<td>68.8%</td>
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Sources:  
http://www.census.gov/hhes/www/socdemo/voting/publications/p20/2008/Table%2004b.xls  
http://www.census.gov/hhes/www/socdemo/voting/publications/p20/2012/Table04b.xls
25. There are scientifically accepted standards for conducting “small N” case study comparisons. Mr. Trende provides no account of why he believes that Mississippi is a valid case to compare North Carolina. Contrast this with the method I used to select Alabama: I chose a state that had the same value on the key independent variable (number of legal changes) and is otherwise as similar to Mississippi as possible (this is described as a “most similar” design by the Seawright and Gerring methodology).

26. I do not otherwise suggest that this simplistic approach is the best way to examine the relative impact of national trends and election law changes on turnout, but I wanted to adhere to Mr. Trende’s approach reflected in his section titled “The Current Population Survey Data, and a Comparison of Two States.” The addition of Alabama to the charts demonstrates that national trends do not account for the changes in registration and in turnout in North Carolina, Alabama, and Mississippi. There is no reason that we should not conclude that changes to voting laws are a reasonable suspect.

27. In any event, as noted above, there are many reasons that Mississippi and North Carolina may or may not have followed a particular trajectory in terms of turnout. Ultimately, his two-state comparison based on incorrectly weighted data is invalid and would not be acceptable in a peer review setting,

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at least not without substantially more explanation about how and why these
two cases were chosen for comparison.

Mr. Trende’s Regression Analysis of African-American Turnout and the
Permissiveness of State Voting Laws (Figure 11).

28. Mr. Trende next relies on turnout data from approximately 30 states and
conducts several regression analyses (¶¶ 117-25, 135) to argue that the
adoption of various voting reforms in those states had no effect on turnout.
This analysis is similarly flawed for a number of reasons and would not be
acceptable in a peer review setting. There is a series of problems with the
analysis, described below.

29. First, he chooses the endpoints of long intervals—2000 and 2012 (Fig. 11)
and 1998 and 2010 (Fig. 12)—without examining any data during the
intervening years. These data constitute a pooled cross sectional time series,
and there are no analyses that I am aware of that try to explain a 12-year
trend by just examining the end points. The most recent work on the subject,
for example, runs regression models that include each year of turnout data.
For example, the Giammo and Brox paper cited by Trende in his report
controls for time-specific effects in this manner. Indeed, every scholarly
work with which I am familiar that examines voter turnout considers the
over-time nature of the data. Appropriate accounting for time dependent
processes in statistical data is perhaps the first lesson taught in basic
statistics classes on time series.

30. Second, different voting law reforms have different effects, yet Mr. Trende’s
first regression analysis (¶¶ 121-22) treats different reforms as if they can be
expected to have the same impact (¶ 121), which elides significant
differences between different types of change. For example, in recent
Presidential elections in North Carolina, several thousand voters have taken
advantage of out-of-precinct balloting; over 90,000 have taken advantage of
same-day registration; and over 2 million have taken advantage of early
voting. It is unreasonable to treat these very different reforms as though
they are interchangeable. Yet Mr. Trende counts each as a single, fungible
reform—that is, a state that has adopted out of precinct voting (e.g., Kansas,
see Trende Rep. Fig. 11, Ex. 4) is treated identically to a state that has
adopted early voting (e.g., Florida, see Trende Rep. Fig. 11, Ex. 5), despite
very significant differences in the type and magnitude of these changes.


31. There is also significant variation between individual types of reforms. Some states offer same day registration during the early voting period or during a specified portion of it, while others offer same day registration on Election Day itself. States that offer in-person early voting vary tremendously in terms of the number of early voting locations or length of time during which early voting is available. Mr. Trende does not attempt to account for these differences, which are substantial. The Election Assistance Commission’s Election Administration and Voting Survey is one source that describes the substantial variation in how many early voting locations are available in different states (see Table 41, pgs. 78-79 in the 2012 report).6 Texas, which offers 12 days of early voting according to Mr. Trende’s Exhibit 5, reported to the EAC that there were 860 non-election office early voting locations in its 254 counties. Nevada, which offers 14 days of early voting, provides 123 non-election office and 13 election office early voting locations for 13 counties. Compare these two states to Oklahoma, a state that provides for just four days of early voting and limits early voting to a single location in each of 77 counties. These are substantial differences, and they are differences that we know are related to different rates of early voting.

32. Compounding these errors, Mr. Trende then does not distinguish as to when different states adopted different reforms. Mr. Trende ignores in much of his analysis the fact that many of these laws were adopted decades ago (e.g., no-excuse absentee voting in California or early in-person voting in Texas), a decade ago (early in-person voting in Florida and Georgia), or very recently (16 year old pre-registration), with newer laws being adopted since 2012 (e.g., online voter registration). This is a problem because Mr. Trende’s analysis assumes each law will have the same impact (each counts as “1” in his indices) and assumes that a law in place for years will show the same relationship with turnout as a law adopted last week, even though the presence of early voting in a state for an additional ten years could produce very different effects. Witness, for example, the steady growth in early voting usage in North Carolina since 2000. See Gronke Rep. Exhibit Six (pg. 15). It is unreasonable to expect reforms to have the same impact on turnout regardless of how long they have been in effect.

33. These basic methodological flaws—which ignore data from intervening years; elide major differences between types of reforms; ignore variations within each type of reform; and ignore the time in which reforms have been in place—render his first regression analysis unsuitable for a peer-reviewed publication.

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34. I note that Mr. Trende claims to control for certain variables in his first regression, but he does not adequately explain his methodology. For example, he claims to control for whether elections were contested (¶ 122), but it is impossible to evaluate the validity of his methodology because he does not explain which states he considered to be contested or why. He claims to control for lower levels of African-American turnout in 2000 (¶ 124), but it is entirely unclear why this is a valid factor to control for.

35. Mr. Trende performs a second regression analysis that does correctly allow for the notion that different types of reforms have a differential impact (¶ 125), but still suffers from many of the same flaws. Once again, Mr. Trende does not account for the fact that some states had adopted early in-person voting prior to 2000, some adopted changes in 2002, some in 2004, and still others in 2008. Surely, voters and campaigns did not all adjust at the same rate and at the same time to the changes in the voting regime, yet Mr. Trende's analysis simply assumes that they did. For states that adopted early voting prior to 2000, the impact of the legal change is probably underestimated by this analysis. For states that adopted the legal change very recently, the effect is probably overestimated (the reason is that a state that adopted a change in 2006, for example, is treated the same as a state that adopted the change in 1996). It is impossible to conclude anything from this analysis about the relationship of changes in the legal regime and voter turnout.

36. Furthermore, his second regression—focusing on the effect of individual reforms—is difficult to evaluate because, for some reforms, there are too few cases from which to draw scientifically valid inferences. For example, only two states other than North Carolina implemented same day registration between 2000 and 2012 (see NCSL - Iowa (2007); DC (2010)). Generally speaking, it is difficult to draw statistically valid inferences about the effect of a voting reform from three cases, particularly without adequate controls for other variables that could confound the analysis.

37. Aside from the methodological flaws in his regression analyses, I also note that they also appear to suffer from erroneous factual assumptions, mischaracterizing the number of voting reforms implemented in various states between 2000 and 2012, which further cast doubt the validity of Mr. Trende's results. I have not attempted a comprehensive evaluation of Mr. Trende's chart, but some basic errors include the following:

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7 Mr. Trende apparently counts one additional state as implementing same day registration during the period in question – California – but is mistaken for reasons explained below. The NCSL data are reported at http://www.ncsl.org/research/elections-and-campaigns/same-day-registration.aspx.
California. Mr. Trende lists California as having adopted three permissive voting laws between 2000 and 2012. See Figure 11. These three reforms are Out-of-Precinct voting (see Trende Exhibit 4, identifying California as “CT” instead of “CA”); In-Person Early Voting (see Trende Exhibit 5); and Same Day Registration (See Trende Exhibit 6). This is an error. As Mr. Trende’s own report indicated (see id.) although California passed a Same Day Registration bill in 2012, it has not yet been implemented; as of 2012, California had not yet conducted a statewide election using Same Day Registration. Mr. Trende erroneously overcounts the number of reforms in implemented in California, treating it as one of only three jurisdictions to adopt three or more voting reforms, tied for the second-highest number of reforms adopted. Given California’s relatively middling growth in African-American participation of 6.6% during the years in question, Mr. Trende’s overcount of the number of reforms implemented in California skews his results, possibly causing him to underestimate the effect of the voting reforms at issue.

Ohio. Mr. Trende lists Ohio as having adopted only a single voting reform between 2000 and 2012: early voting (see Trende Rep. Exhibit 5). Up until this year, however, the early voting period in Ohio began prior to the registration cut-off date, creating a de facto one-week period of same day registration in the state. Ohio has therefore been treated as a same day registration state in academic literature on the subject, including work cited by Mr. Trende himself. Given the strong growth in African-American turnout in Ohio between 2000 and 2012 (16.6%, or sixth highest among the states he analyzes), Mr. Trende’s undercount of the number of Ohio’s reforms further skews his results, again possibly causing him to underestimate the effect of the voting reforms at issue.

38. And, finally, even ignoring these flaws, Mr. Trende’s analysis does not support his conclusions. Most notably, he finds a positive correlation between voting reforms and turnout, and that North Carolina had the largest increase in African-American turnout between 2000 and 2012. He states

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9 Compare Ohio Rev. Code § 3509.01(B)(2) (permitting ballots to be available 35 days before Election Day, amended in 2014), with 3503.19(A) (setting forth the registration cutoff on the 30th day before Election Day).

that the differences are not statistically significant, but applies an overly stringent standard for statistical significance given the low number of cases involved. Conventional statistical significance levels are based on the assumption that the statistical distribution of the statistics is normally distributed. The chance of detecting an effect if an effect is present is very difficult with small samples. This does not mean that the researcher abandons the practice of significance testing, but while there is nothing invalid about using a 5% significance level it does make it much more likely that a statistically significant relationship will fail to be recognized.

Mr. Trende’s Alternate Explanation for Turnout

39. Mr. Trende acknowledges that African-American turnout and African-American early voting usage have increased in North Carolina since 2000, but attributes those trends exclusively to the 2008 and 2012 Obama campaigns, and their efforts to take advantage of certain “demographic trends.” See Trende Rep. ¶¶ 105-114. This claim is problematic in several respects.

40. First, Mr. Trende tries to demonstrate the effects of campaigns by presenting early voting data, but excluding the 2008 and 2012 elections. It is not methodologically sound to wholly discard elections as outliers and exclude them from analysis entirely because an African-American was on the ballot for President. Of course, I would not deny that these elections were of historical significance. However, we have evidence from my co-authored article on Florida, as well as from work published by Profs. Robert Stein and Greg Vonnahme, that voting behavior is “learned” and becomes a “habit.” As explained in my report, the 2008 elections are best understood as accelerating an existing trend towards early voting by African-American voters. See Gronke Rep. ¶ 21. Mr. Trende himself acknowledges that campaigns adapt to changes in voting laws, but he offers no explanation as to why, then, we should exclude the very two elections that every expert involved in this case agrees are important in understanding early voting rates in North Carolina.

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11 It would have been helpful to have something more systematic to refer to than quotes from Obama’s chief of staff and field director, neither of which referred specifically to North Carolina and neither of which referred to mobilization efforts directed at African Americans. See Trende Rep. ¶¶ 105-109.

41. Finally, the best guideposts for what may happen in future elections is to examine the most recent analogous elections (i.e., to compare presidential election years to other presidential elections years; midterms to other midterms; primaries in presidential years to other primaries in presidential years, etc.). Voting patterns in the last two presidential elections are highly probative of what we may see in the next presidential election, and cannot simply be discarded.

42. Moreover, Mr. Trende fails to explain increased utilization of early voting by African Americans in North Carolina prior to the 2008 general election (Gronke Rep. Exhibits Six & Seven (pgs. 15 & 17)). The earlier adoption rates in North Carolina make the state somewhat distinctive (as shown in Gronke Rep. Exhibits Six, Seven, & Nine (pgs. 15, 17 & 20)), and makes it clear that, while the 2008 campaign may have had the effect of increasing early voting turnout among African Americans, the legal regime had a separate and independent effect.

43. Mr. Trende’s analysis also cannot explain why African-American rates of early voting exceeded white rates in the 2010 primary and general elections (Gronke Rep. Exhibit Ten, pg. 22), or the growth in African-American early voting usage between the last two midterms (from 2006 to 2010), which vastly outstripped the growth in white early voting usage rates during the same period. See Gronke Rep. ¶ 27.

44. Moreover, contrary to Trende’s claims, trends in early voting cannot be explained by factors such as “demographic trends” among “whites in urban areas” (¶ 114). As noted in my report, African Americans utilize early voting at higher rates than White voters. There is no evidence that early voting rates are an isolated occurrence, taking place in large, urban counties. This is a statewide phenomenon.

45. In the tables below, I took Mr. Trende’s theory of early voting in North Carolina (¶ 101) to be that large, urban counties that have become significantly more Democratic were exposed heavily to mobilization efforts by the Obama campaign and should show far higher takeup rates of early in-person voting than other counties not subject to the same trends.

46. In the charts below, I have identified the two counties listed by Mr. Trende (Durham and Mecklenberg) and compare them with three additional counties—Buncombe, Edgecombe, and Guilford. These counties were chosen using the comparative case study method. I chose counties that were very similar to or very different from Durham and Charlotte on key characteristics identified by Mr. Trende and Dr. Janet R. Thornton. These are called the “most similar” and “most different” methods of case selection. If, as Mr. Trende posits, African-American early voting is a result of in-migration and
growth in urban counties, then rural counties that did not experience in-migration should not display high levels of African American early voting. Similarly, Prof. Thornton posits a correlation between the percentage of African Americans in a county and the level of early voting. Therefore, there should be a low level of African-American early voting in a county with low levels of African-American residents.

47. As the demographic table shows, Buncombe (located in the western corner of the state) is approximately the same size as Durham County but far less urban (Buncombe's population density per square mile is one-third Durham's). Buncombe has a very low percentage of African-American voters and thus would presumably not be targeted by a campaign that, as Mr. Trende notes, is focused on African-American turnout. Edgecombe County is located in the northeast section of the state that has not been impacted much by the growth trends in the Research Triangle or Charlotte area. It is much smaller than Mecklenberg or Durham counties, but has a higher proportion of African Americans. This is a poor, rural county in a region that North Carolinians refer to as “down east.” Finally, I have selected Guilford County, which contains the city of Greensboro, to provide a comparison to an urban county with comparable levels of African Americans, but one that has not experienced the same level of in-migration as have Durham and Mecklenberg counties.

13 The Research Triangle area is an area traditionally understood as bounded by the cities of Durham, Raleigh, and Chapel Hill and three universities (Duke, NC State, and UNC). It has been a hotbed of technology growth and in-migration into the state. Mecklenberg County contains Charlotte, the largest city in the state, and Charlotte has experienced substantial population growth and in-migration as a result of the banking industry.
48. The next table compares early voting rates among African Americans from the 2006 general through the 2012 general elections. If Mr. Trende’s (and Dr. Thornton’s) explanations of early voting usage were true, then there should be far lower takeup rates among African Americans in Buncombe, Edgecombe, and Guilford Counties when compared to Durham and Mecklenberg Counties.

49. The data could not be clearer, and contradict claims that, first, the rise in early voting did not begin until the general election of 2008, and, second, that the rise in early voting was concentrated in Democratically leaning urban counties such as Durham and Mecklenberg. All counties experienced substantial increases in early voting prior to the 2008 general election. High rates of early voting continued in the 2010 general election, when Obama was not on the ticket, as well as in the 2012 general election. There is, in short, little evidence that the African American preference for early voting is a mobilization effect and one limited to elections where Obama is on the ticket.

Demographic Characteristics for Five NC Counties

<table>
<thead>
<tr>
<th>County</th>
<th>Total Population</th>
<th>Density (persons per sq. mile)</th>
<th>Percent African American</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buncombe</td>
<td>247,912</td>
<td>362.9</td>
<td>6.50%</td>
</tr>
<tr>
<td>Durham</td>
<td>288,133</td>
<td>935</td>
<td>38.80%</td>
</tr>
<tr>
<td>Edgecombe</td>
<td>55,574</td>
<td>111.9</td>
<td>57.60%</td>
</tr>
<tr>
<td>Guilford</td>
<td>506,610</td>
<td>756.4</td>
<td>33.50%</td>
</tr>
<tr>
<td>Mecklenberg</td>
<td>990,977</td>
<td>1755.5</td>
<td>31.80%</td>
</tr>
<tr>
<td>Statewide</td>
<td>9,848,060</td>
<td>196.1</td>
<td>22%</td>
</tr>
</tbody>
</table>

Source: US Census State and County "Quick Facts" (http://quickfacts.census.gov/qfd/states/37000.html)
Levels of Early Voting, by Race, in Five North Carolina Counties

<table>
<thead>
<tr>
<th></th>
<th>African American</th>
<th>White</th>
<th>African American</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durham</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006 General</td>
<td>6.06%</td>
<td>9.68%</td>
<td>12.77%</td>
<td>20.51%</td>
</tr>
<tr>
<td>2008 Primary</td>
<td>28.45%</td>
<td>22.05%</td>
<td>25.19%</td>
<td>19.73%</td>
</tr>
<tr>
<td>2008 General</td>
<td>76.61%</td>
<td>66.88%</td>
<td>66.30%</td>
<td>41.78%</td>
</tr>
<tr>
<td>2010 Primary</td>
<td>12.04%</td>
<td>10.45%</td>
<td>6.38%</td>
<td>2.69%</td>
</tr>
<tr>
<td>2010 General</td>
<td>32.68%</td>
<td>29.28%</td>
<td>30.92%</td>
<td>27.98%</td>
</tr>
<tr>
<td>2012 Primary</td>
<td>31.13%</td>
<td>37.48%</td>
<td>15.68%</td>
<td>17.95%</td>
</tr>
<tr>
<td>2012 General</td>
<td>75.24%</td>
<td>64.75%</td>
<td>69.64%</td>
<td>47.74%</td>
</tr>
<tr>
<td>Mecklenberg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buncombe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006 General</td>
<td>18.77%</td>
<td>36.47%</td>
<td>7.13%</td>
<td>12.85%</td>
</tr>
<tr>
<td>2008 Primary</td>
<td>31.31%</td>
<td>29.13%</td>
<td>29.77%</td>
<td>16.69%</td>
</tr>
<tr>
<td>2008 General</td>
<td>73.98%</td>
<td>66.82%</td>
<td>77.47%</td>
<td>53.42%</td>
</tr>
<tr>
<td>2010 Primary</td>
<td>17.95%</td>
<td>22.58%</td>
<td>36.10%</td>
<td>22.32%</td>
</tr>
<tr>
<td>2010 General</td>
<td>31.97%</td>
<td>43.29%</td>
<td>39.86%</td>
<td>28.67%</td>
</tr>
<tr>
<td>2012 Primary</td>
<td>21.17%</td>
<td>31.97%</td>
<td>29.36%</td>
<td>19.23%</td>
</tr>
<tr>
<td>2012 General</td>
<td>69.62%</td>
<td>64.78%</td>
<td>74.27%</td>
<td>50.41%</td>
</tr>
<tr>
<td>Edgecombe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006 General</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guilford</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006 General</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Source: State of North Carolina SEIMS files

50. Thus, it is not reasonable to suggest that changes in the liberal urban electorate in the Research Triangle or Charlotte areas would result in higher rates of early in person voting among African Americans in a portion of the state that was not affected by these changes. Mr. Trende’s alternative explanation of the rates of early voting in North Carolina is not supported by a more carefully designed comparative case study analysis.

Mr. Trende’s Characterization of Academic Literature on Voting Reforms and Turnout

51. Although it is not essential to the conclusions in my report, I note that Mr. Trende’s review of the literature on voting reforms and turnout is highly selective, and/or otherwise does not support his conclusions.

52. Mr. Trende cites six academic articles and one blog post in his report concerning the effects of early voting on turnout. See Trende Rep. ¶¶ 145-149.

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53. Before turning to the conclusions that Mr. Trende draws from this literature, I make two observations. First, Mr. Trende does not cite a single article that disputes the long-standing academic consensus that same-day registration has a positive effect on turnout, with notable gains among African-American voters. See Gronke Rep. ¶ 43. In fact, of the articles that Mr. Trende cites, each of the four that considers same-day registration concludes that it has a positive effect on turnout. See Larocca and Klemanski (2011) at 93; Burden et al. (2009); Burden et al. (2014); Crowell (2014). To summarize, the academic literature on same day registration points to a scholarly consensus that same day registration improves turnout. There is no dissent on this issue.

54. Second, I note that, in contrast to several of the academic articles cited in my report, see ¶¶ 17-20 & n.25, none of the articles cited by Mr. Trende purports to consider whether the availability of early in-person voting has had different effects on members of different racial and ethnic groups.

55. Turning more specifically to Mr. Trende's interpretation of the academic literature on early voting, I disagree with his assertion that “[m]ost scholarly literature suggests that parties likely ‘cannibalize’ their Election Day turnout with early voting.” (¶ 147). To the contrary, as I stated in my initial declaration, the consensus among political scientists is that a number of “[s]tudies reported that early in-person voting reforms have increased turnout modestly, when examined from the 1990s through the early 2000s.” Gronke Rep. ¶ 14. It is not particularly surprising that the first generation of early voting scholarship, relying as it did on limited elections and sparse data, found little consistent evidence of a turnout effect. However, as is common in a new area of research, the sophistication of the studies and scientific conclusions has evolved. More recent work has noted ever higher usage


15 With respect to the literature cited by Mr. Trende, there is an inaccuracy in the review. The Burden et al. 2009 article cited by Trende is an early, working paper version of the Burden et al. 2014 article. The 2014 article included additional years of data, but in structure and presentation, is obviously a later version of the 2009 piece reaching the same conclusions. Comparing the 2009 working paper and the 2014 journal article, most of the section headers are identical; Figure 4 and Figure 1 (respectively) are identical; Figure 1 and Figure 2 (respectively) are identical; Figures 2 and 3 (2009) and Figure 3 (2014) are similar (2014 reflects the additional years of data). It is not normal scientific practice to cite two versions of the same article when characterizing the scholarly literature.
rates of early in-person voting; see Gronke Rep. ¶¶ 15-20, including two new book-length treatments of voter turnout, Leighley and Nagler (2013) and Springer (2014).\footnote{Jan E. Leighley & Jonathan Nagler, 2013, Who Votes Now? Demographics, Issues, Inequality, and Turnout in the United States, Princeton, NJ: Princeton University Press; Springer 2014, supra note 5.} While it is true, as I noted in my initial report, that some papers have suggested a contrary conclusion, see Gronke Rep. ¶ 20, Mr. Trende ignored or failed to consider the totality of the work in the field, and the balance of scholarly literature suggesting that early in-person voting has a positive effect on turnout.

56. His review of the literature is oddly selective in this regard. Trende ¶ 146 cites Larocca and Klemanski’s (2011) review of the literature as demonstrating a “more-or-less consistent” finding of a “neutral-to-negative impact on turnout.” My 2004 piece\footnote{Gronke 2004, supra note 18.} is the basis of this quote, and it is important to realize that the scholarly consensus at that point was best described as neutral—not negative—and was based at the time on a very small number of states that had adopted early voting. In particular, Mr. Trende simply ignored or failed to consider the most recent academic work analyzing data from 2008 and subsequent elections, which indicates that early in-person voting has come to be relied on disproportionately by African-American voters, and can be used to increase turnout among historically low-participation groups. See Gronke Rep. ¶¶ 15-20 & n.25.

57. Mr. Trende’s selective review of the literature is inappropriate for an objective analysis and is methodologically inappropriate, particularly given that there are easily accessible review articles\footnote{E.g., Stein & Vonnahme 2010, supra note 15.} that provide a more complete overview of the scholarly literature and the conclusions that have been reached to date. Two important conclusions from Stein and Vonnahme (2010) that are directly pertinent to this case are: “[I]t suggests that election reforms might have a greater long-term effect such that the full effect might not be immediately realized. And . . . we might additionally expect voters to settle into a particular mode of voting. That is, theoretical models might suggest that voting is not only habit-forming generally, but voters might also stay with a particular mode of voting (e.g., early, absentee) across elections.”\footnote{Id. at 185.}

I note briefly that Mr. Trende cites two papers that I authored, one presented at a conference 10 years ago in 2004,\footnote{Gronke 2004, supra note 18.} and one published seven years ago in
The citation for my 2007 article is incomplete and misleading. In that 2007 article, I did report a “relatively large, negative, and stable coefficient associated with EIP [early in-person] voting,” but the rest of the pertinent text was not cited by Mr. Trende: “The five states with EIP voting in 2004 were Arkansas, Nevada, Tennessee, Texas, and West Virginia. Since 1998, these five states have an average turnout of 44%, while all other states have an average turnout of 51%. Perhaps these five states have some characteristics that are not contained in our model and which lead them to both limit their convenience voting reforms to EIP voting (there are few states that allow early voting but which still require a reason for an absentee ballot) and which also lead them to have lower than average turnout.”

I further stated that the empirical evidence is positive that early in-person voting “stimulates turnout,” if “only slightly.” As I noted in my initial report, these papers accurately stated my views and conventional wisdom pre-2008, but the “2008 Presidential and subsequent elections overturned the conventional wisdom concerning the modest use of early voting.” Gronke Rep. ¶ 15.

B. “Opinion 1” in Mr. Trende’s Report

58. I now turn back to Mr. Trende’s first opinion, that the “voting reforms contained in HB589 place the state within the mainstream of American voting laws.” Trende Rep. at 4. His argument apparently is that if a state has a record of innovations in voting laws that operate well and encourage turnout, that this state should abolish these laws in order to return to the “mainstream.” This argument ignores the historical trend in improving access to the ballot box in the United States, ignores how many of the reforms have been adopted by states over the past decade, and ignores that different states have different characteristics and are differently situated along a variety of factors, such that it is misleading to suggest that states are more or less “permissive,” based on the sheer number of “reforms” they have enacted in recent years. There is far too much variability in the mix of laws and regulations regarding elections in our federalized election system in the United States to expect a precise match to North Carolina’s mix of laws.

21 Gronke et al. 2007, supra note 18.
22 Id. (emphasis added).
23 Id. at 642.
59. In paragraphs 26-44, Mr. Trende discusses the length of time states provide for early voting, focusing in particular on differences in the length of time of early voting, calculated as the difference between the opening day and closing day of early voting reported by Dr. Charles Stewart, and information that Mr. Trende obtained by reviewing state statutes and by calling state elections offices.

60. Since Dr. Stewart apparently relied on a resource provided at a website that I maintain (http://earlyvoting.net), it is important to understand some differences between what Dr. Stewart reports and what Mr. Trende reports. Dr. Stewart’s Figure 11 represents the “opening and closing dates of early voting”—the information that I report in my “early voting calendar.” My resource does not represent the precise number of days of early voting, but the length of the early voting period from start to finish. For example, I do not subtract a day if early voting is not allowed on a Sunday. This leads to differences in the calculations between Dr. Stewart and Mr. Trende (see, e.g., Trende Rep. ¶ 42). Dr. Stewart understands what data he is using, as noted in his figures (“opening and closing days,” Fig. 11), but the distinction is lost on Mr. Trende.

61. Mr. Trende helpfully includes states that have recently changed their laws (e.g., Minnesota); the resource at my web page does not represent that it is has been updated to 2014. Mr. Trende admits that a number of states have to be categorized by judgment calls—for example, he takes the figure of 14 days for Kansas because this is what the Secretary of State’s office “suggested that most counties begin” and because this is the period used by Johnson County, the most populous county. In my calendar, I chose the first legal date allowable for early voting. It is also correct that Virginia does not allow no-excuse early voting de jure but a conversation with any county official in Virginia would have helped Mr. Trende understand that Virginia has substantial early voting de facto. The “out of state” requirement is heavily utilized in Fairfax, Prince Charles, and other counties by commuters who travel to the District of Columbia.26

62. However, even with the adjustments, Mr. Trende’s data can be used to reach exactly the same conclusion as Dr. Stewart’s. As shown in Figure 1 of Mr. Trende’s report, North Carolina ranks almost exactly in the middle of early voting states under current law, and will rank as the fifth shortest under the

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26 “Working and commuting” and “[b]usiness outside of County/City of residence on election day” are both valid excuses to vote absentee by mail or in person in Virginia. See Virginia Board of Elections, Absentee Ballot Application Form, http://sbe.virginia.gov/Files/Forms/VoterForms/VirginiaAbsenteeBallotApplication.pdf.
new law.

II. **Expert Report of Thomas Fetzer**

63. I turn next briefly to the expert declaration of Mr. Thomas Fetzer, former mayor of Raleigh, former chair of the North Carolina Republican Party, and currently a political lobbyist. Mr. Fetzer claims that early in-person voting substantially increases campaign costs (¶ 9) and may result in uninformed voting (¶¶ 7-8). However, empirical data and other comments I have heard from local and national vote mobilization experts indicates that the reality is more nuanced.

64. First, in terms of uninformed voting, this is a concern that is commonly raised with respect to early voting, and this concern can be easily put to rest. A decade or more of research on voters who cast a ballot prior to election day shows that the early voter is the decided voter, a voter who tends to be more partisan, more informed, and more committed to the candidate of their choice. Voters do not make a decision to cast an early vote casually; it is only done when they are sufficiently confident in their choice. This has been shown in the American and in the comparative contexts.²⁷

65. Second, research has shown that free media coverage increases with the rise of early voting. Dunaway and Stein (2013) show that the volume and content of campaign news coverage of Senatorial and gubernatorial races was higher in states with early voting periods.²⁸ Increased free media coverage will offset some of the increased advertising costs that Mr. Fetzer attributes to early voting.

66. Third, Mr. Fetzer note that the bulk of campaign advertising occurs in the few weeks before the election (¶ 5), and this is the same time that early voting is occurring. He refers later (¶ 9) to advertising occurring months before an election, but it is not clear why any campaign would do this, nor how 15 days of early voting changes this calculation.

67. In terms of efficiency, it is true that the voter mobilization period under early voting is longer, but it need not be more expensive and can be far more


efficient. Vote mobilizers I have spoken to liken voter mobilization to a giant
checklist. Once you cast a ballot, your name is checked off of the list and you
are not contacted again. This is precisely what happens in a state like North
Carolina that has historically been so effective and efficient in making its
early voting turnout information immediately (and freely—unlike other
states) available to candidates as well as to non-partisan get-out-the-vote
(GOTV) organizations. This allows campaigns to be more efficient, by
targeting resources only at those voters who have yet to cast a ballot. All one
needs is an Internet connection and a bit of computer savvy.

68. Furthermore, a recent national study has shown that early voting actually
allows campaigns to partition the electorate, focusing early voting
mobilization efforts on dependable voters, while redirecting their Election
Day mobilization at less dependable, unreliable voters who make up a
significantly larger portion of the Election Day electorate. To quote the
authors: “[W]e reasoned that campaigns focus their direct mobilization
efforts particularly on low-participation types residing in swing states and
that early voting swing states afford campaigns a much longer window of
time to engage in direct mobilization.29

69. In sum, there is no systematic evidence that compels the conclusion that
early voting necessarily increases the costs of campaigns.

III. The Expert Report of Janet R. Thornton

70. Finally, the expert report of Dr. Janet R. Thornton provides useful
information about the geographic location of early voting locations, but her
claims are irrelevant to the conclusions that I reached in my expert
declaration.

71. As noted in the beginning of this report, I forwarded no theory of overall
voter turnout. I agree with Dr. Thornton (¶ 14) that “factors besides the
availability of one-stop voting appear to influence voter participation.” No
one questions this, but that does not contradict a claim that one-stop voting
may increase turnout.

72. Yet Dr. Thornton, similar to Mr. Trende, proceeds to forward a model of
turnout based on a single variable—voting laws—contradicting her own
statement that turnout is a multi-faceted, multi-causal process. In paragraph
18, she makes the remarkable claim that “everything else being the same,
then one would expect that if the election processes were the same then the

Early Voting,” paper presented at the Annual Meeting of the Midwest Political
Science Association, Chicago, IL.
voter participation rates between the groups would be similar from one election to the next.” But everything else was not the same—2008 and 2012 were Presidential contests, and 2010 was a midterm contest. Furthermore, she fails to recognize that it was early voting rates that remained higher among African Americans, not overall turnout.

73. In paragraph 27, Dr. Thornton reverses causality. She discovers that census tracts with early voting sites also have a higher proportion of African Americans among the voting population. I find this unsurprising, since many counties choose to place a single early voting location in the county seat, an area that in North Carolina often has concentrations of lower-income and minority populations. This is purely a correlational claim, however, and does not demonstrate that early voting rates are solely a product of geographic proximity.

74. Dr. Thornton’s Figure 4 actually supports my conclusions, because it demonstrates what I claim in my expert declaration—African Americans show a strong preference for voting during the first week of early voting and on the weekends.

75. Dr. Thornton’s paragraph 31 is not coherent—showing the partisan makeup of counties with early voting locations has no relationship to turnout or to early voting usage. The final sentence is not supported by the information contained in the paragraph or map.

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

DATED this 2nd day of May, 2014.

Paul Gronke, PhD
## General Information

| Court | United States District Court for the Middle District of North Carolina; United States District Court for the Middle District of North Carolina |
| Federal Nature of Suit | Civil Rights - Voting[441] |
| Docket Number | 1:13-cv-00660 |