

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

FAIR FIGHT ACTION, INC., *et al.*,

Plaintiffs,

v.

BRAD RAFFENSPERGER, *et al.*,

Defendants.

Civ. Act. No. 18-cv-5391 (SCJ)

**PLAINTIFFS' MEMORANDUM OF LAW IN SUPPORT OF THEIR
MOTION TO EXCLUDE THE EXPERT TESTIMONY OF
SEAN P. TRENDE**

TABLE OF CONTENTS

TABLE OF AUTHORITIES..... i

I. INTRODUCTION..... 1

II. FACTUAL BACKGROUND..... 2

A. Long Lines Have A Disparate Impact on Black Georgians.....2

B. Dr. Graves Verified and Confirmed the BPC/MIT Report.....4

C. Mr. Sean Trende’s “Opinions” Do Not Address The Issues.....5

III. LEGAL STANDARD.....5

IV. ARGUMENT6

A. This Court Should Exclude Mr. Trende’s Testimony Because He Is Not Qualified to Rebut Dr. Graves’ Research Methodology.....7

B. This Court Should Exclude Mr. Trende’s Opinions Because He Has Not Reliably Applied His Methods to This Case.....13

C. This Court Should Exclude Mr. Trende’s Opinions Because It Will Not Assist This Court As The Trier of Fact.20

CONCLUSION.....22

Table of Authorities

	Page(s)
 Federal Cases	
<i>In re Abilify Products Litig.</i> , 299 F. Supp. 3d 1291 (N.D. Fla. 2018)	15
<i>Allison v. McGhan Med. Corp.</i> , 184 F.3d 1300 (11th Cir. 1999)	6
<i>Coggon v. Fry’s Elecs., Inc.</i> , No. 1:17-CV-03189, 2019 WL 2137465 (N.D. Ga. Feb. 6, 2019).....	6
<i>Daubert v. Merrell Dow Pharms., Inc.</i> , 509 U.S. 579 (1993).....	6, 20
<i>Eastland v. Tenn. Valley Auth.</i> , 704 F.2d 613 (11th Cir. 1983)	15, 16
<i>United States v. Frazier</i> , 387 F.3d 1244 (11th Cir. 2004)	7
<i>Matrixx Initiatives, Inc. v. Siracusano</i> , 563 U.S. 27 (2011).....	15
<i>McCorvey v. Baxter Healthcare Corp.</i> , 298 F.3d 1253 (11th Cir. 2002)	6
<i>Trilink Saw Chain, LLC v. Blount, Inc.</i> , 583 F. Supp. 2d 1293 (N.D. Ga. 2008).....	7
 Court Rules	
Federal Rule of Evidence 702.....	5, 6

Record Citations

Plaintiffs’ Amended Complaint, ECF No. 41 2
 Graves Report 1, ECF No. 1664
 Trende Report, ECF No. 19512, 14

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<https://www.realclearpolitics.com/about.html> (last visited June 18,
 2020)10

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<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi%3A10.7910/DVN/ZSBZ7K>3

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<https://www.theatlantic.com/ideas/archive/2020/06/getting-tough-protests-counterproductive/613090/>10

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Digital Research & Education, *What are the Differences Between One-Tailed and Two-Tailed Tests?*,
<https://stats.idre.ucla.edu/other/mult-pkg/faq/general/faq-what-are-the-differences-between-one-tailed-and-two-tailed-tests/> (June 20,
 2020)16, 17

How Our Anti-American Education System Made Riots Inevitable,
 The Federalist (June 16, 2020),
<https://thefederalist.com/2020/06/16/how-our-anti-american-education-system-made-riots-inevitable/>11

Hyun-Chul Cho & Shuzo Abe, *Is Two-Tailed Testing for Directional Research Hypotheses Tests Legitimate?*20

National Review8

RealClear Politics Commentary (June 17, 2020),
[https://www.realclearpolitics.com/articles/2020/06/17/americas_ch
oice_chicago_or_maga_country_143472.html](https://www.realclearpolitics.com/articles/2020/06/17/americas_choice_chicago_or_maga_country_143472.html)..... 11

RealClear, <http://www.realclearmediagroup.com/about/> (last visited
June 20, 2020)..... 9, 10

Science Editors, *White Paper on Publication Ethics* (2012)..... 8

Steve Cortes, *America’s Choice: Chicago or Maga Country* 11

The Weekly Standard 8

Welcome to the ‘Great Awakening’, CNN Opinion (June 14, 2020),
[https://www.cnn.com/2020/06/12/opinions/great-awakening-
empathy-solidarity-george-floyd-jones/index.html](https://www.cnn.com/2020/06/12/opinions/great-awakening-empathy-solidarity-george-floyd-jones/index.html) 11

I. INTRODUCTION

Plaintiffs will present evidence at trial that voters of color in Georgia routinely face long lines at the polls, placing a disparate burden on their right to vote. Besides offering evidence through the real-life experiences of Georgians, Plaintiffs will provide expert testimony that Black voters face disproportionately long wait times to vote. A 2019 nationwide report from the Bipartisan Policy Center and the Massachusetts Institute of Technology (the “BPC/MIT Report”) found that, on average, Black and Latinx voters waited longer to vote in the 2018 election than did white voters. The BPC/MIT Report showed that wait times in one Georgia county were the longest of the over 3,000 polling places surveyed nationwide.

The BPC/MIT Report is the sort of evidence on which experts rely. It is credible because it analyzed a robust, nationwide dataset and was a bipartisan effort backed by MIT. Plaintiffs obtained the underlying Fulton County data used in the BPC/MIT Report and provided it to Stephen C. Graves, Ph.D., an MIT professor for over four decades, to evaluate. Dr. Graves independently examined the Fulton County data and confirmed the BPC/MIT Report’s findings were accurately stated for Fulton County. (ECF No. 166). Dr. Graves found the Fulton County dataset was consistent with the BPC/MIT Report’s finding that average wait times grow as the percentage of Black voters in a precinct increases.

Enter Defendants' expert, Sean P. Trende, the subject of this motion. Mr. Trende is Defendants' rebuttal expert to Dr. Graves. Mr. Trende does not have a Ph.D., but is working on obtaining one soon. Nor is Mr. Trende a professor. He is a former lawyer, now a political commentator for a right-leaning media company. Mr. Trende's opinions and testimony should be excluded. First, Mr. Trende is not qualified to opine as a rebuttal expert on Dr. Graves' study design and conclusions. Second, Mr. Trende has not applied the correct methodology to the problem at hand. Third, Mr. Trende's opinions are irrelevant because they are not a rebuttal of any opinion that Dr. Graves offers.

II. FACTUAL BACKGROUND

A. Long Lines Have A Disparate Impact on Black Georgians.

Defendants' failures in Georgia elections, shown most recently on June 9, 2020, have resulted in long lines to vote. Those long lines disproportionately affect voters of color. *See* Am. Compl. for Declaratory & Injunctive Relief ¶ 130, ECF No. 41. One particularly helpful study in demonstrating the impact on voters of color is the November 2019 BPC/MIT Report, which compiled data from 3,119 individual polling places across the country to measure wait times at the polls during the 2018 midterms. *See* Expert Report of Stephen C. Graves (the "Graves Report") Attach. (BPC/MIT Report) at 1, ECF No. 166 at 12. It concluded that

Black and Latinx voters wait longer, on average, to vote than whites. Graves Report Attach. (BPC/MIT Report) at 4, ECF No. 166 at 15.

This result is not surprising: statistical correlations between a voter's race and the wait time to vote have consistently confirmed anecdotal observations that Black and Latinx voters are more likely than whites to endure long lines to vote. *See, e.g., 2018 CCES Common Content Dataset*, Harvard.edu CCES (2018), <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi%3A10.7910/DVN/ZS BZ7K>. What makes the BPC/MIT Report unique, however, is that prior statistical analyses of race and wait times have relied on public opinion surveys that are susceptible to several limitations. The BPC/MIT Report, in contrast, used direct observational data from over 3,000 polling locations to track the length of lines. Using this data, the BPC/MIT Report found:

Consistent with past studies, the more voters in a precinct who are non-white, the longer the wait times. In precincts with 10% or less non-white voters, the average wait time was 5.1 minutes, the median was 3.6. In precincts with 90% or more non-white voters, the average and median climb to 32.4 and 13.3 minutes, respectively.

Graves Report Attach. (BPC/MIT Report) at 21, ECF No. 166 at 29. Of particular relevance to this case, the BPC/MIT Report found that lines disproportionately affected voters of color and included direct observation data from Fulton County,

Georgia, which showed Georgia had the longest lines of any jurisdiction in the study. Graves Report 1, ECF No. 166 at 3.¹

B. Dr. Graves Verified and Confirmed the BPC/MIT Report.

Because the BPC/MIT Report used a large, national dataset to obtain its results, Plaintiffs wanted to ensure that nothing unique about Georgia causes it to buck the larger national trend of Black voters spending more time in lines. To do so, Plaintiffs obtained from Fulton County the same underlying data the County had provided to BPC/MIT and then provided that data to Dr. Graves.

Dr. Graves is the Abraham J. Siegel Professor of Management at MIT Sloan School of Management and has forty-three years of experience analyzing operation management problems, including how to minimize lines in service operations. Graves Report Attach. (Curriculum Vitae (“CV”) of Stephen C. Graves), ECF No. 166 at 52. He testified that “I’m primarily interested in the study of operations in terms of design, planning, improvement of operations, and that can be in the context of manufacturing systems, service systems, distribution systems, logistics systems.” Graves Dep. 11:18-23 (excerpts attached as Exhibit 2). He has also published a slew of peer-reviewed works. *Id.*

¹ The reference in Dr. Graves’ report to “Georgia” is a reference to Fulton County in particular, as Fulton County was the only county in Georgia to submit data for the BPC/MIT Report.

Dr. Graves independently verified the Fulton County data, confirmed the BPC/MIT Report's findings are accurately stated for Fulton County, and found the Fulton County dataset to be consistent with the BPC/MIT Report's conclusion that average voter wait time grows as the percentage of Black voters in a precinct increases. Dr. Graves' initial report did not seek to address whether the Fulton County subset of the larger national dataset could, by itself, demonstrate a statistically significant relationship between the percentage of Black voters and the wait time at a polling site. Resp. Pls.' Expert Stephen C. Graves to Expert Report Defs.' Expert Sean P. Trende ("Graves Resp.") 1, ECF No. 208.

C. Mr. Sean Trende's "Opinions" Do Not Address the Issues.

Defendants have tendered Mr. Trende as a rebuttal expert to Dr. Graves. Calling Mr. Trende a "rebuttal" expert is a misnomer, however, because the essence of his opinion is that the Fulton County data Dr. Graves examined do not demonstrate a statistically significant relationship between wait times and the share of Black registered voters in any given precinct. Dr. Graves never asserted that he found any such relationship, however. Dr. Graves was examining the Fulton County data to see if the data supported the BPC/MIT Report's findings.

III. LEGAL STANDARD

Federal Rule of Evidence 702 "allows a qualified expert to give opinion testimony when it is necessary to help the trier of fact understand the issues, the

opinion is based on sufficient facts or data, it was produced using reliable principles and methods, and those principles and methods were reliably applied to the facts of the case.” *Coggon v. Fry’s Elecs., Inc.*, No. 1:17-CV-03189, 2019 WL 2137465 (N.D. Ga. Feb. 6, 2019); *see* Fed. R. Evid. 702. The trial judge serves as the “gatekeeper,” ensuring that “speculative, unreliable expert testimony” is not admitted. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589 (1993); *McCorvey v. Baxter Healthcare Corp.*, 298 F.3d 1253, 1256 (11th Cir. 2002).

To protect against misleading expert testimony, the Eleventh Circuit Court of Appeals requires a three-part inquiry for admissibility: (1) the expert must be qualified to testify on the matter addressed; (2) the expert’s conclusions must be supported by reliable methodologies; and (3) the testimony must assist the trier of fact through applying scientific, technical, or specialized expertise. *Allison v. McGhan Med. Corp.*, 184 F.3d 1300, 1309 (11th Cir. 1999). The burden of satisfying this inquiry rests with the party offering the expert. *Id.* at 1306.

IV. ARGUMENT

This Court should exclude the testimony of Mr. Trende for three reasons: First, Mr. Trende is not qualified to engage in peer review of Dr. Graves’ methodology. Second, Mr. Trende’s analysis is not the product of reliable principles and methods. Third, Mr. Trende’s analysis will not be helpful to this

Court as trier of fact, both because it attempts to disprove a claim Dr. Graves never made and answers a question of no import.

A. This Court Should Exclude Mr. Trende’s Testimony Because He Is Not Qualified to Rebut Dr. Graves’ Research Methodology.

A trial court must ensure an “expert’s” experience provides an appropriate foundation for asserting expert opinions. *United States v. Frazier*, 387 F.3d 1244, 1262 (11th Cir. 2004). “The burden of establishing qualification[s], reliability, and helpfulness rests on the proponent of the expert opinion.” *Id.* at 1260. An expert whose testimony does not “stay within reasonable confines of [her] subject area” should be disqualified. *Trilink Saw Chain, LLC v. Blount, Inc.*, 583 F. Supp. 2d 1293, 1304 (N.D. Ga. 2008) (internal citations omitted) (disqualifying expert who, though qualified in testing procedures, instead testified on consumer surveys and market research). Here, Defendants cannot show that Mr. Trende is qualified to comment on Dr. Graves’ analysis.

Mr. Trende is working on, but has not completed, his Ph.D. and is not a professor. As Mr. Trende himself states, “I wouldn’t call myself a political scientist” “[b]ecause I’m not a political science professor.” Trende Dep. 22:8-9 (complete deposition attached as Exhibit. 1). Besides being a student, Mr. Trende writes political commentary for RealClear Media, a right-leaning media company. ECF No. 195-1 (CV of Sean P. Trende). Mr. Trende also had a relatively brief career as a lawyer. *Id.*

Mr. Trende has never generated or reviewed academic research. He has never been asked to peer review the work of others, perhaps because he himself has never had a peer-reviewed publication or even developed a hypothesis for peer review. Trende Dep. 21:18-24. One full page of Mr. Trende's three-page CV is blank other than to cite to his work writing political commentary for RealClearPolitics. ECF No. 195-1 at 3. The "Publications from Last 10 Years" section of his CV lists only three pieces of commentary published in two conservative news magazines, *National Review* and *The Weekly Standard*, and an article on franchise law he co-authored while a practicing attorney. *Id.* at 4. Mr. Trende has also authored portions of a few political books, such as a chapter for the book "Trumped." *Id.* at 1.

Simply put, Mr. Trende is an aspiring academic who has never designed a research question suitable for peer review and academic publication and has no experience reviewing the research design of others and assessing their methodology.² He may well achieve that status and experience, but he is not there yet.

² Plaintiffs are not arguing that an expert witness must always have a Ph.D., hold a tenure-track professorship, or have a certain number of peer-reviewed studies. But here, where Mr. Trende is offered to rebut the research methodology of a prominent professor, Mr. Trende should be experienced in peer reviewing such methodology. *Cf.* Council on Science Editors, *White Paper on Publication Ethics*, 2.32 (2012) (imposing an ethical obligation on peer reviewers to make clear the

Mr. Trende's qualifications stand in sharp contrast to those of Dr. Adrienne Jones, whom Defendants have sought to exclude "at this early point in her career." ECF No. 386, 9. Dr. Jones does have an M.Phil. and Ph.D. in Political Science and has taught political science for seventeen years. *Id.* at 7, 9. Defendants request Dr. Jones' exclusion contending that she has too few peer-reviewed papers, *id.* at 9, (Mr. Trende has none) and, unlike Dr. Jones, Mr. Trende intends in this case to engage in peer review of a Professor's research methodology. The only possible theory Defendants can advance that Mr. Trende is not demonstrably less qualified than Dr. Jones is that he has testified as an expert. But the argument that prior expert testimony is itself qualifying is one the Fourth Circuit has correctly labelled "absurd." *See Thomas J. Kline, Inc. v. Lorillard, Inc.*, 878 F.2d 791, 800 (4th Cir. 1989). Mr. Trende's experience writing for a right-leaning media company does not establish expertise.

The closest Mr. Trende comes to having expertise relevant is that he regularly pens election-related online content for RealClearPolitics, a right-leaning political site owned by RealClear Media.³ RealClearPolitics is best known for

limitations of their experience to the editor offering the assignment and to refuse if they do not have adequate experience to provide an authoritative assessment.).

³ *See* RealClear, <http://www.realclearmediagroup.com/about/> (last visited June 20, 2020).

polling data aggregation,⁴ and Mr. Trende’s work on that site consists largely of averaging and reporting on poll results and using those poll results to rate the competitiveness of various political races around the country. Trende Dep. 43:10-25. He has also been described as the “right hand man” of RealClear Media’s co-founder, John McIntyre. Trende Dep. 47:23-25.

Although RealClearPolitics purports to “present balanced and non-partisan analysis,” its claim to being “balanced” is that it operates as a news aggregator, alternating “liberal” and “conservative” takes.⁵ But even a cursory review of the site’s material shows the site’s editors use this “balance” to alternate mainstream and uncontroversial center-left commentary with far-right commentary, often written by RealClearPolitics’ own staff or published by affiliated media holdings.

For example, on June 17, 2020, RealClearPolitics was running a “left of center” article from *The Atlantic* pointing out that police-provoking confrontations with protesters is often counterproductive, along with a “balancing” article by a RealClearPolitics contributing writer asserting that Democrats’ inadequate support for school vouchers will turn the United States into a third-world nation.⁶ The day

⁴ *See id.*

⁵ About RealClearPolitics, <https://www.realclearpolitics.com/about.html> (last visited June 18, 2020).

⁶ Compare Daniel J. Myers, *Getting ‘Tough’ on Protests is Counterproductive*, *The Atlantic* (June 17, 2020), <https://www.theatlantic.com/ideas/archive/2020/06/getting-tough-protests->

before, RealClearPolitics “balanced” an article by CNN Host Van Jones stating that it was heartening that more white Americans are now recognizing the existence of racism with an article from *The Federalist* proclaiming the cause of recent riots is that the Common Core education standards emphasize slavery as a shameful part of American history.⁷

Mr. Trende’s efforts with RealClearPolitics do not qualify him to critique academic research design. Mr. Trende describes the work as often mechanical. For example, Trende explains that to the extent RealClearPolitics engages in statistical meta-analyses, all it is doing is taking the average of polling data. Trende Dep. 43:20-44:3. Likewise, when Mr. Trende categorizes the competitiveness of a gubernatorial race, he typically uses predefined cutoffs based on polling data to define whether a race is a toss-up. *Id.* 46:16-47:1.

Mr. Trende’s other possible claim to expertise is that he has been retained as an expert in other cases relating to elections. Those engagements do not mean he is

counterproductive/613090/, with Steve Cortes, *America’s Choice: Chicago or Maga Country*, RealClear Politics Commentary (June 17, 2020), https://www.realclearpolitics.com/articles/2020/06/17/americas_choice_chicago_or_maga_country_143472.html.

⁷ Compare Van Jones, *Welcome to the ‘Great Awakening’*, CNN Opinion (June 14, 2020), <https://www.cnn.com/2020/06/12/opinions/great-awakening-empathy-solidarity-george-floyd-jones/index.html>, with Inez Feltscher Stepman, *How Our Anti-American Education System Made Riots Inevitable*, *The Federalist* (June 16, 2020), <https://thefederalist.com/2020/06/16/how-our-anti-american-education-system-made-riots-inevitable/>.

now, or ever was, properly qualified. *See Kline*, 878 F.2d at 800. 1989) (“[I]t would be absurd to conclude that one can become an expert simply by accumulating experience in testifying.”).

Additional reasons caution against inferring much from Mr. Trende’s prior expert work. First, although Mr. Trende has apparently been retained as an expert in six prior lawsuits, most of those suits relate to redistricting, not to undue burdens on the right to vote. As Mr. Trende acknowledged tacitly in his deposition, his work has little or nothing to do with whether he is qualified to testify, other than in the general sense that those cases benefited from an expert having a general background in statistics. Trende Dep. 32:1-8 (opining that his prior testimony might be relevant because there’s “a broader approach to statistics” that is “related to all of American politics”). Second, Mr. Trende rarely was used as a testifying expert, so the Court was not called upon to assess Mr. Trende’s qualifications. Third, Mr. Trende mentions in his report only three cases in which he was actually asked to testify, and in at least two of those three cases, a court excluded at least part of Mr. Trende’s opinion. Trende Report, ECF No. 195 at 5-6.

Given he is not qualified to give expert testimony in this case, the Court should exclude Mr. Trende’s testimony.

B. This Court Should Exclude Mr. Trende’s Opinions Because He Has Not Reliably Applied His Methods to This Case.

This Court should also exclude Mr. Trende’s opinions because all three of the tests he conducted used a methodology inappropriate for the research question at hand.

The essence of Mr. Trende’s rebuttal opinion is that the Fulton County data Dr. Graves examined does not demonstrate a statistically significant relationship between wait times and the share of Black registered voters in each precinct.⁸ But Mr. Trende’s opinion is not a rebuttal of Dr. Graves because Dr. Graves never used the Fulton County data to establish a statistically significant relationship. Mr. Trende, by attempting to calculate the significance of that relationship, not only misinterprets Dr. Graves’ opinion but also relies on bad methodology, painting a misleading picture.

The Fulton County data unambiguously shows that, on average, the precincts reviewed had longer than average wait times as the percentage of Black voters increased. What Mr. Trende has done is take the Fulton County data and generate “p-values.” A p-value asks what the odds are there is no relationship

⁸ Mr. Trende performed three separate calculations; a p-value for Professor Graves’ regression, a weighted-t test, and a non-parametric statistical test. Graves Resp. 3, ECF No. 208. Because Plaintiffs’ criticism applies with equal weight to each of Mr. Trende’s opinions, Plaintiffs will not address them separately.

between two things (here, wait times and share of Black registered voters).⁹ Thus, p-value is often the tool researchers use to establish statistical significance.

In calculating a p-value for a relationship between Fulton County's long lines and voters' race, Mr. Trende adopts a "null hypothesis"¹⁰ that no relationship exists between the share of Black voters and long lines, computing a p-value of .329. Trende Report, ECF No. 195 at 10. That p-value would suggest an approximately one-third possibility that the longer wait times in the dataset for Fulton County precincts with a larger share of Black voters is a product of chance.¹¹

⁹ There is a distinction between what a particular dataset shows and what is necessarily true of the entire population of voters. Dr. Graves' regression analysis shows that, of those precincts for which Fulton County collected data, precincts with larger percentages of Black voters had longer average wait times. The Fulton County data, then, is consistent with the findings of the BPC/MIT Report. Calculating a statistical significance for the data is relevant only if one wants to use the Fulton County data to draw conclusions about the entire population of voters. Dr. Graves' opinion is about the dataset, not the population. He is opining that nothing in the Fulton County data suggests Fulton County behaved in a manner differently from the entire pool of data used in the BPC/MIT Report. He thus had no reason to calculate a p-value to reach that conclusion, a fact apparent on the face of his linear regression.

¹⁰ A "null hypothesis" predicts there is no significant difference between specified populations, with any observed difference being due to sampling or experimental error.

¹¹ Mr. Trende states in his report that statisticians often look for a confidence level above 95% (which is a p-value of 5% or less) before drawing a strong conclusion. Trende Report, ECF No. 195 at 9. That threshold is merely a matter of convention and, more importantly, there is no relationship between the 95% confidence interval employed by researchers and the 51% "preponderance of evidence"

Mr. Trende, however, has artificially inflated his p-value calculation by choosing an incorrect null hypothesis. The question Dr. Graves considered was whether the Fulton County data shows a **positive** relationship between the share of Black voters and wait time. Graves Resp. 2, ECF No. 208. The null hypothesis for this question is not “there is **no** relationship” between the share of Black voters and wait times, but rather “there **is not a positive relationship**” between share of Black voters and wait times. *Id.* at 2-3 (emphasis added). Dr. Graves’ null hypothesis posits only that Black voters do not experience longer wait times, while Mr. Trende’s null hypothesis separately posits **both** that Black voters do not experience longer wait times **and** that Black voters do not experience **shorter** wait times, even though the latter possibility has no basis in empirics and is not predicted by the BPC/MIT Report. Nor does Mr. Trende cite any other credible source for his null hypothesis. This distinction is not a matter of semantics; it has important statistical implications because it changes the appropriate method of calculating a p-value and the level of significance of the results.

standard typically applicable in judicial proceedings. For that reason, courts sometimes give significance to p-values that exceed 5%. *See In re Abilify Products Litig.*, 299 F. Supp. 3d 1291, 1314 (N.D. Fla. 2018); *see also Matrixx Initiatives, Inc. v. Siracusano*, 563 U.S. 27, 44 (2011) (refusing to credit statistical significance when assessing materiality); *cf. Eastland v. Tenn. Valley Auth.*, 704 F.2d 613, 622 n.12 (11th Cir. 1983) (the 5% threshold is used in employment cases because statistical significance shifts the burden of proof to the defendant).

A calculation of statistical significance can be “one-tailed” or “two-tailed.”¹² These “tails” refer to a bell curve having extremes on either side of its median. In the example of wait times to vote, wait times at many polling places will cluster around the median but some wait times will be extremely low and others will be extremely high. This feature of probability curves means there are two tails to a dataset, one on each side of the median.

Whether to employ a two-tailed or one-tailed test is a matter of design study by a professional, and depends on whether both or only one tail of the distribution relates to the research question.¹³ A classic example of when a two-tailed test would be appropriate is when a pharmaceutical company is testing whether a new drug is more or less effective than an existing drug on the market.¹⁴ In that example, the appropriate null hypothesis is that “there is no difference between the effectiveness of the two drugs,” because, for crucial practical, ethical, and regulatory reasons, the drug company needs to know *both* whether the new drug is more effective than the old drug *and* whether it is less effective.

¹² See David Kaye & David Freeman, *Reference Guide on Statistics in Reference Manual on Scientific Evidence* 255-56 (3d ed. 2011).

¹³ See *id.*

¹⁴ UCLA Institute for Digital Research & Education, *What are the Differences Between One-Tailed and Two-Tailed Tests?*, <https://stats.idre.ucla.edu/other/mult-pkg/faq/general/faq-what-are-the-differences-between-one-tailed-and-two-tailed-tests/> (June 20, 2020).

In contrast, an example of when a one-tailed test is the correct choice is when a manufacturer is considering changing to a new supplier but will make the switch only if sampling reveals the new supplier's goods are of higher quality than those of the existing supplier.¹⁵ Here, the appropriate null hypothesis is "the new supplier's goods are of no higher quality than the existing supplier's" because the possibility that the new supplier's goods are of lower quality has the same research implication as if they are of identical quality. In either case, the manufacturer will not make the switch, so there is no methodological reason for distinguishing between the two possibilities.¹⁶

Which test is employed has a large impact on the calculated p-value; when statisticians consider both tails of the distribution, they must assign half of their significance to each end of the tail, as opposed to only one end.¹⁷ The result is that

¹⁵ *See id.*

¹⁶ Dr. Graves offered the following way to think about the difference between two-tailed and one-tailed tests: Suppose that a fair coin is one that lands on heads 50% of the time and tails 50% of the time. A researcher wanting to test whether, as a general proposition, a particular coin is fair would employ a two-tailed test because the coin either landing on heads too much or landing on tails too much is potential evidence of an unfair coin. Graves Dep. 47:4-51:21 (necessary excerpts attached as Exhibit 2). In contrast, if a casino wants to test whether a particular coin favors the house and the house wins on heads, a one-tailed test is more appropriate because the casino is interested only in disproving a null hypothesis that the coin does not disproportionately land on heads. *Id.* The relevant point is that the study design and purpose dictate the appropriate test.

¹⁷ UCLA Institute for Digital Research & Education, *What are the Differences Between One-Tailed and Two-Tailed Tests?*, <https://stats.idre.ucla.edu/other/mult->

where a researcher employs a two-tailed test when a one-tailed test is the sounder choice, half of the statistical significance is erroneously erased.

Here, Mr. Trende calculated a p-value of .329. Had he used a one-tailed test, however, he would have calculated a p-value of .16. Graves Resp. 3, ECF No. 208. Thus, Mr. Trende's two-tailed test shows a one-in-three probability that the longer wait times in the Fulton County data result from chance whereas, had he used a one-tailed test, it would have shown a one-in-six probability the Fulton data results from chance. Stated differently, using a two-tailed test means that relying on the Fulton County data alone¹⁸ establishes a 67% chance that wait times are tied to race whereas using a one-tailed test established an 84% chance that wait times are tied to race. Graves Resp. 4, ECF No. 208.

As Dr. Graves lays out in his response to Mr. Trende, a one-tailed test was the appropriate choice here for several reasons. First, Dr. Graves was seeking to answer a specific question: Is the Fulton County data consistent with the larger finding of the BPC/MIT Report that Black voters experience longer wait times? To address that question, the possibilities that Black voters either face the same wait

pkg/faq/general/faq-what-are-the-differences-between-one-tailed-and-two-tailed-tests/ (June 20, 2020).

¹⁸ These probabilities are what can be drawn from the Fulton County data viewed in a vacuum. Because other quantitative and qualitative evidence of disparate impact exists, however, the actual probability that the Fulton County dataset reflects the population is higher.

times as white voters or face shorter wait times as white voters are functionally equivalent. Just as in the manufacturing example, if either hypothesis is true, the hypothesis that Black voters face longer wait times is false. Assigning half of the significance to the possibility that Black voters face shorter lines would be inappropriate because that possibility has no independent research significance.

Second, using a null hypothesis that “there is not a positive relationship” between the share of Black voters and wait times, Graves Resp. 3, ECF No. 208, is not the appropriate hypothesis for this litigation, because the legal question is whether Blacks suffer disparate impacts in voting. That question makes irrelevant a distinction between (a) Black voters facing lines no longer than white voters and (b) Black voters facing shorter lines than white voters.

Finally, using a one-tailed test is the correct design choice because Dr. Graves and Mr. Trende already had available to them the BPC/MIT Report showing that, when using the complete national dataset, Black voters faced, on average, longer lines. They had an empirical basis for knowing, given a large enough dataset, in what direction the relationship between Black voter registration and wait times ran. As Dr. Graves points out, the BPC/MIT Report itself built on prior survey results from the 2018 Cooperative Congressional Election Study showing longer wait times for Black and Latinx voters. Graves Resp. 2, ECF No.

208. Because the issue to be examined is whether those broader studies are borne out in Fulton County, Mr. Trende's hypothesis dictates a one-tailed test.

During his deposition, Mr. Trende's sole defense of his use of a two-tailed test was "because that's typically the test you use." Trende Dep. 64:7-12.

According to Mr. Trende, a two-tailed test is a sort of "default" approach, and thus "it's kind of the baseline unless you have good reason to do a one-tailed test." *Id.*

His conclusory reasoning is not well-founded. "Standard textbooks on statistics clearly state that non-directional research hypotheses should be tested using two-tailed testing while one-tailed testing is appropriate for testing directional research hypotheses." Hyun-Chul Cho & Shuzo Abe, *Is Two-Tailed Testing for Directional Research Hypotheses Tests Legitimate?*, 66 *Journal of Business Research* 1261 (2013).

The result of Mr. Trende using the incorrect null hypothesis, and therefore the incorrect test, is that his expert report dramatically understates the statistical significance of the long Fulton County voting lines. Because Mr. Trende's flawed methodology produces an unreliable result, his opinion should be excluded.

C. This Court Should Exclude Mr. Trende's Opinions Because It Will Not Assist This Court As The Trier of Fact.

The final reason this Court should exclude Mr. Trende's opinions is that they will not assist this Court as trier of fact because they do not have a "valid scientific connection" to the disputed facts. *Daubert*, 509 U.S. at 592.

First, the statistical significance of the relationship of the Fulton County data, standing alone, is irrelevant. The purpose of Dr. Graves' analysis was not to make the claim that the Fulton County dataset constitutes statistical proof that Black voters face longer lines. Instead, the BPC/MIT Report, along with several predecessor reports, already provide ample evidence from which this Court can conclude that Black voters, on average, face longer waits to vote. What Dr. Graves has done is show that the same trend that exists in the national data appears in the Fulton County dataset. Which is to say, there is no reason to believe the national association between Black participation and longer lines is inapplicable in Fulton County, the county with the longest lines in the United States. Dr. Graves' analysis is an important part of the evidentiary puzzle because it substantiates the reasonable inference that Black voters in Fulton County, like those nationally, face a burden on their right to vote. Whether the Fulton County dataset could independently demonstrate to a particular standard of significance that Black voters wait longer to vote is irrelevant; there is no reason to believe the national data does not apply to Fulton County.

Second, even if the statistical significance of Dr. Graves' regression analysis were in issue, Mr. Trende's findings do not address the question relevant to this litigation, *supra* pp. 12-13, and in Dr. Graves' deposition: "My concern is that it doesn't strike me as being relevant, given the issue at hand is trying it understand

do polling locations with a majority of African American voters wait longer.”
Graves Dep. 54:21-55:1. This Court should exclude Mr. Trende’s report as
irrelevant.

CONCLUSION

Plaintiffs respectfully request the Court grant their motion to exclude Mr.
Trende’s testimony.

CERTIFICATE OF COUNSEL REGARDING FONT SIZE

I hereby certify that the foregoing has been prepared with a font size and
point selection (Times New Roman, 14 pt.) which is approved by the Court
pursuant to Local Rules 5.1(C) and 7.1(D).

Respectfully submitted, this, the 29th day of June, 2020.

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