EXHIBIT E

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

Scope of Inquiry

I have been retained by the Georgia Secretary of State and State Election Board as an expert to provide analysis related to *Grant v. Raffensperger*, *Alpha Phi Alpha v. Raffensperger*, and *Pendergrass v. Raffensperger*. All three cases allege the current U.S. Congressional, state Senate, and state House districts in Georgia violate Section 2 of the Voting Rights Act. In early 2022, I provided a report and testified in the preliminary injunction hearing in this matter. I have examined the reports and supplemental reports provided by plaintiffs' experts Dr. Maxwell Palmer, and Dr. Lisa Handley in this case. My rate of compensation in this matter is $500 per hour.

Qualifications

I am a tenured full professor of political science at Rice University. At Rice, I have taught courses on redistricting, elections, political representation, voting behavior and statistical methods at both the undergraduate and graduate level. Over the last thirty years, I have worked with numerous local governments on districting plans and on Voting Rights Act issues. I have previously provided expert reports and/or testified as an expert witness in voting rights and statistical issues in a variety of court cases, including on behalf of the U.S. Attorney in Houston, the Texas Attorney General, a U.S. Congressman, and various cities and school districts.

In the 2000 round of redistricting, I was retained as an expert to provide advice to the Texas Attorney General in his role as Chair of the Legislative Redistricting Board. I subsequently served as the expert for the State of Texas in the state and federal litigation involving the 2001 redistricting for U.S. Congress, the Texas Senate, the Texas House of Representatives, and the Texas State Board of Education. In the 2010 round of redistricting in Texas, I was again retained as an expert by the State of Texas to assist in defending various state election maps and systems including the district maps for the U.S. Congress, the Texas Senate, the Texas House of Representatives, and the current at large system for electing Justices to the State Supreme Court

and Court of Appeals, as well as the winner-take-all system for allocating Electoral College votes.

I have also worked as an expert on redistricting and voting rights cases at the state and/or local level in Alabama, Arkansas, Florida, Georgia, Kansas, Louisiana, Michigan, Mississippi, New Mexico, New York, Pennsylvania, Washington, and Wisconsin. The details of my academic background, including all publications in the last ten years, and work as an expert, including all cases in which I have testified by deposition or at trial in the last four years, are covered in the attached CV (Appendix 1).

Data and Sources

In preparing this report, I have reviewed the reports filed by the plaintiffs' experts in this case. I have relied on the analysis provided to date by Dr. Palmer and Dr. Handley in their expert reports in this case. I have also relied on various election and demographic data provided by Dr. Palmer and Dr. Handley in their disclosures related to their reports in this case. In addition, I relied on data on turnout by race for the 2022 Republican Primary election provided to counsel by the Georgia Secretary of State, and 2022 precinct-level election results for that election downloaded from the publicly available website of the Georgia Secretary of State.

Dr. Palmer's Reports

Dr. Palmer, in his report in *Pendergrass v. Raffensperger* dated 12/12/2022, provides the results of an EI election analysis that he used to assess Racially Polarized Voting (RPV) in each of 40 contests between 2012 and 2022, and reports the results in his Tables 1 through 6 for five U.S. Congressional districts and as a combined focus area. Similarly, in his report in *Grant v. Raffensperger* dated 12/12/2022, Dr. Palmer provides the EI results for the same 40 contests between 2012 and 2022 as reported in his Tables 2 through 6, for three Georgia House and two Georgia Senate focus areas. The race of the candidate preferred by Black voters is indicated in Dr. Palmer's tables with an asterisk by the name of each Black candidate, and the absence of an asterisk indicating a non-Black candidate. Across the 40 reported contests 19 of the preferred candidates are Black and 21 are non-Black, providing an ideal, almost equal distribution, for comparing both Black and white voter support for Black-preferred candidates that happen to be Black, with Black voter support for Black-preferred candidates that happen not to be Black.

However, despite having this data identified in his reports and the associated opportunity analyze it, there is no discussion of the impact, if any, that the race of the candidate might have on the behavior of Black or white voters in these contests. Also, Dr. Palmer provides no party labels in these tables, and does not mention the party of candidates in his discussion of the results of his analysis.

As evident in Dr. Palmer's Tables 1-6 in his *Pendergrass* report, and Tables 2-6 in his *Grant* report, the pattern of polarization is quite striking. Black voter support for their preferred candidate is typically in the 90 percent range and scarcely varies at all across the ten years examined from 2012 to 2022. Nor does it vary in any meaningful degree from the top of the ballot elections for U.S. President to down-ballot contests like Public Service Commissioner. While slightly more varied, estimated white voter opposition to the Black-preferred candidate is typically above 80 percent. In the *Pendergrass* Table 1 for the combined focus area, Dr. Palmer reports estimates of Black voter support that only varies between 96 and 99 percent when results are rounded to the nearest percent. White voter opposition to the Black preferred candidate is slightly more varied, but still remarkably stable, ranging in *Pendergrass* Table 1 only from 84.5% to 91.4 percent.

What accounts for this remarkable stability in the divergent preferences of Black and white voters across years and offices? It is clearly not Black voter's preference for Black candidates, or white voter's disinclination to vote for Black candidates. At 98.5 percent, the average Black support for the 19 Black candidates identified as Black in Palmer's *Pendergrass* Table 1 is indeed nearly universal, but so is the average 98.4 percent support for the 21 candidates identified as non-Black in Table 1. Similarly, the average white vote in opposition to the 19 candidates identified as Black in *Pendergrass* Table 1 is a clearly cohesive 88.1 percent, but so is the average 87.1 percent white voter opposition to the 21 candidates identified as non-Black. The same can said for Dr. Palmer's results in his *Grant* report where, for example, the average Black support for the 19 candidates identified as Black in Table 2 is 98.2 percent, and Black voter support for the 21 candidates identified as non-Black is a nearly identical 98.1 percent. Similarly, the average white vote in opposition to the 19 candidates identified as Black in *Grant* Table 2 is a clearly cohesive 90.1 percent, but so is the average 89.1 percent white voter opposition to the 21 candidates identified as non-Black.

If we do consider the party affiliation of the candidates, the pattern over these election contests is stark in both the *Grant* report and the *Pendergrass* report. In all 40 contests the candidate of choice of Black voters is the Democrat and the candidate of choice of white voters is the Republican.

In contrast, the race of the candidates does not appear to be influential. Black voter support for Black Democratic candidates is certainly high, as Dr. Palmer's Tables 2 through 6 in *Grant* and Tables 1 through 5 in *Pendergrass* clearly show, but those same figures also show Black voter support in the same high range for white Democratic candidates as it is for Black Democratic candidates. Similarly, white voter support for Black Democratic candidates is very low, but white voter support for white Democratic candidates is also very low.[1] In other words, there appears to be just one overarching attribute of candidates that uniformly leads to their relative acceptability or unacceptability among white voters and Black voters alike. And it is not the candidate's race. It is their party affiliation.

For example, in the 2022 contest for Governor in Dr. Palmer's *Pendergrass* Table 1 (his combined focus region) Stacey Abrams, the Black Democratic candidate, gets an estimated 98.5% of the Black vote, but in the same election in the adjacent Lt. Governor contest Charlie Bailey, a white Democrat, gets an almost identical estimated 98.4% of the Black vote. Looking at White voters a similar pattern is clear. Abrams gets an estimated 10.3% of the white vote, but in the same election in the adjacent Lt. Governor contest Baily, the white Democrat, received a similar estimated 12.1% of the white vote.

Similarly, in the 2021 U.S. Senate runoffs in Dr. Palmer's *Pendergrass* Table 1 (his combined focus region) Raphael Warnock, the Black Democratic candidate gets an estimated 98.7% of the Black vote, but in the same election in the other Senate contest Jon Ossoff, a white Democrat gets an identical estimated 98.7% of the Black vote. Looking at white voters a similar pattern is clear. Warnock, the Black Democratic candidate, gets an estimated 15.2% of the white vote, but in the same election in the other Senate contest, Ossoff, the White Democrat, gets an almost identical estimated 14.5% of the white vote.

[1] The limited evidence from the 2022 endogenous elections provided in Dr. Palmer's supplemental reports do not contradict this broad pattern.

Moving beyond his EI analysis, Dr. Palmer also provides reconstituted election results to demonstrate the success rate of Black preferred candidates in his focus areas. Given that as mentioned above the Black preferred candidate is always the Democratic candidate and given the dominance of political party in the EI results as discussed above, it is no surprise that these tables show stable performance for Democratic candidates across the 40 contests, regardless of race. For example, in Dr. Palmer's Table 7 in his *Pendergrass* report, the average vote share for the Democratic candidate is 41.7 percent in the 19 contests where the Democratic candidate is Black, and a very similar 42.3 percent in the 21 contests where the Democratic candidate is not Black.

In short, all that Dr. Palmer's analysis demonstrates is that Black voters provide uniformly high levels of support for Democratic candidates and white voters provide uniformly high levels of support for Republican candidates. There is no indication in these EI results that the high levels of Black voter support for Democratic candidates is connected in any meaningful way to the race of the Democratic or Republican candidates. Similarly, there is no indication in these results that the high levels of white voter support for the Republican candidates is connected in any meaningful way to the race of the Democratic or Republican candidates.

Dr. Handley's Report

Dr. Handley's December 12, 2022 report in *Alpha Phi Alpha* focuses first on general elections, and reports results similar to those reported by Dr. Palmer. Black voters support Democratic candidates and white voters support Republican candidates. She indicates that she has chosen to focus on racially contested elections, so this limits the ability to see whether this partisan pattern varies at all with the race of the candidates, but in the two contests without a Black Democrat, the Ossoff 2020 Senate contest and 2021 runoff, the results for both Black and White voters are very similar to the results for the racially contested elections, as was the case in Dr. Palmer's larger set of general elections.

Unlike Dr. Palmer, Dr. Handley also analyzes eleven racially contested statewide Democratic primaries. The results in these primaries are very different from the general election patterns. The general election pattern is a very important contrast to keep in mind when evaluating the results for these eleven primary contests. In the general elections, Black support for the Democratic candidate is very high and very stable in the upper 90% range. Similarly,

White voter opposition to the Democratic candidates is also high and stable in the 80 percent and up range.

While there is not currently a bright-line court standard for determining the level of support needed under *Gingles* prongs 2 and 3 to demonstrate cohesion, multiple plaintiffs' experts have recently discussed a minimum of 60 percent threshold for cohesion in a two-person contest. Simply having a preferred candidate (50 percent plus 1 in a two-candidate contest) is not sufficient. This is, of course, true by definition. If simply having a preferred candidate was sufficient to establish cohesion, then the *Gingles* 2 threshold test would always be met in two candidate contests and thus not actually constitute a test at all. As Dr. Palmer notes on page 4 of his *Pendergrass* report, "[i]f the group's support is roughly evenly divided between the two candidates, then the group does not cohesively support a single candidate". Even if a more stringent 75 percent or 80 percent threshold was the cohesion threshold standard, the results for the general elections provided by both Dr. Palmer and Dr. Handley clearly establish partisan polarization, with Blacks always favoring Democratic candidates at stable levels well above 80 percent, and whites favoring Republican candidates at similarly stable levels, typically above 80 percent.

Applying the 60 percent threshold for cohesion to the 40 general election contests in Dr. Palmer's *Grant* report or the 40 general election contests in Dr. Palmer's *Pendergrass* report, produces the same clear result. In 40 out of 40 contests, Black voters provide cohesive support to the Democratic candidate and white voters provide cohesive support to the opposing Republican candidate. This unequivocal result is what Palmer references as supporting his conclusion of polarized voting. As he states on pages 5-6 of his December 12, 2022 *Grant* report:

> *Black voters are extremely cohesive, with a clear candidate of choice in all 40 elections. In contrast to Black voters, Figure 2 shows that White voters are highly cohesive in voting in opposition to the Black-preferred candidate in every election across the five focus areas. Table 1 lists the average level of support for the Black-preferred candidate for Black and White voters in each focus area. Across all five focus areas, Black voters support their preferred candidate with an average of 98.5% and a minimum of 95.2% of the vote, and White voters support Black-preferred candidates with an average of 8.3% and a maximum of 17.7% of the vote. This is strong evidence of racially polarized voting across all five focus areas.*

The same can be said for the 16 general election contests that Dr. Handley includes for each of her seven focus regions as reported in her Appendix C1-C7. In every one of the 16 contests examined in all seven regions, Black voter support for the Democratic candidate clearly exceeds 60 percent and in all the regular elections (excluding the one 20 candidate special Senate election in 2020) exceeded 90 percent. White voters provided cohesive support to the opposing Republican candidates exceeding 60% in every contest with the sole exception of the 2022 Senate contest in Appendix 1, where the white estimated vote fell just short of 60 percent at 59.3 percent.

As Dr. Handley, herself, states on page 9 of her December 23, 2022 Report:

> *Overall, the average percentage of Black vote for the 16 Black-preferred candidates is 96.1%. The average percentage of White vote for these 16 Black-preferred candidates across the seven areas is 11.2%. (When Ossoff is excluded, and only Black-preferred Black candidates are considered, the average White vote is slightly lower: 11.1 %.) The highest average White vote for any of the 16 candidates is 14.4% for Raphael Warnock in his 2022 general election bid for re-election. While the percentage of White support for candidates preferred by Black voters varies across the areas, in five of the seven areas the average did not even reach 10%. White crossover voting was the highest in the Eastern Atlanta Metro Region (Map 1), but only about one third of White voters typically supported the Black-preferred Black candidates in this area.*

She finds similarly clear evidence of polarization when she considers the analysis of state legislative elections included in her Appendix B1 and B2, stating on page 9 of her December 23, 2022:

> *Nearly every one of the 54 of the state legislative elections analyzed (53 of the 54 contests, or 98.1%) was racially polarized. The estimates of Black and White support for the state legislative candidates in these contests analyzed can be found in Appendices B1 (State Senate) and B2 (State House). Black voters were quite cohesive in supporting Black candidates in these state legislative contests: on average, 97.4% of Black voters supported their preferred Black state senate candidates, and 91.5% supported their preferred Black state house candidate. Very few White voters supported these candidates, however: Black-preferred Black state senate candidates garnered, on average, 10.1% of the White vote; Black-preferred Black state house candidates received, on average, 9.8% of the White vote.*

Based on their summary descriptions of their general election analysis, it is clear that both Dr. Palmer and Dr. Handley know what a convincing pattern of polarization looks like. That clear pattern is not present once candidate party labels are removed from the contest. Dr. Palmer

makes no effort to address this issue of conflating polarization in support for Democratic versus Republican candidates with racial polarization. Dr. Handley attempts to address the issue by providing analysis for eleven Democratic primaries in each of her seven focus regions.

But looking at the Democratic primary contests, as reported in Dr. Handley's Appendix C1-C7, the contrast to the pattern in the partisan general elects is stark. As detailed above, the pattern of Black voter support for Democratic candidates and white voter support for their Republican opponents in general elections is near universal, and both Black and white voters show strong and highly stable levels of cohesion. In contrast the pattern Dr. Handley identifies in the Democratic primaries is far from universal or stable. The support of Black voters for Black candidates varies widely, and seldom reaches above 80 percent. Similarly, white voter support for Democratic candidates is typically below 20% in the general elections, but in the primaries white support for Black candidates varies widely and is often fairly evenly divided. In many of the contests within Dr. Handley's six focus regions, for example, the votes of Blacks, whites, or both are divided too evenly to characterize the voting as cohesive. Even ignoring any concern for establishing minority or majority cohesion and applying a very loose standard of Blacks and whites simply preferring different candidates, Dr. Handley is only able to conclude that "the majority (55.8%) of the contests I analyzed were racially polarized" (page 10), a level not much above chance, and far below the 100 percent or 98.1 percent reported for general elections.

If we consider the *Gingles* 2 and 3 cohesion thresholds, even this slight result disappears. Using even a modest 60% standard for voter cohesion, Black voters vote cohesively for Black candidates in only 35 contests out of 77 (46 percent). If we add the instances where Blacks vote cohesively for white candidate that rises to 49 contests (64 percent of the 77 total). In those 49 contests, white voters cohesively opposed the Black preference in only 10 contests (20 percent of the 49 contests).

Herschel Walker Senate Race

The recent 2022 Republican U.S. Senate primary provides an additional racially contested primary to consider. Among the six candidates, the majority winner was Herschel Walker, one of the three Black candidates. Given that Black voters were less than 12 percent of the voters in in any county in the state in that primary, and that Walker received a majority of the vote in every county in Georgia, it is clear the Walker was the preferred candidate among White voters

in the Republican primary. This can be seen as well in an initial look at EI estimates for the area covered in Dr. Handley's Appendix A1, reproduced below in Table 1 (Eastern Atlanta Metro Region – Map Area 1, Dekalb, Henry, Morgan, Newton, Rockdale, and Walton). With an estimated 62 percent support among Black voters, and 67 percent support among white voters, Walker is the preferred candidate of both Black and white voters in the Republican primary.

Table 1; Ecological Estimates of Voting Patterns by Race in the 2022 Republican U.S. Senate Primary for Dr. Handley's Eastern Atlanta Metro Region

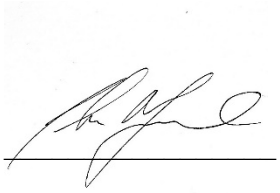
			95% Confidence Interval			95% Confidence Interval			95% Confidence Interval	
Last Name	**Candidate Race**	**Black support**	**Low**	**High**	**White Support**	**Low**	**High**	**Other Support**	**Low**	**High**
Herschel Walker	Black	**62.4%**	57.8%	67.4%	**67.0%**	66.3%	67.6%	5.3%	1.8%	11.7%
Kelvin King	Black	**10.1%**	7.7%	12.8%	**2.5%**	2.0%	3.0%	17.5%	12.5%	22.5%
"Jon" McColumn	Black	**3.0%**	1.7%	4.8%	**0.9%**	0.6%	1.2%	22.4%	18.8%	25.4%
Gary Black	white	**12.8%**	9.6%	16.2%	**15.3%**	14.5%	16.0%	9.3%	3.3%	17.0%
Latham Saddler	white	**7.1%**	4.1%	10.7%	**12.7%**	11.9%	13.5%	15.7%	7.8%	24.0%
Josh Clark	white	**4.5%**	2.7%	6.8%	**1.6%**	1.1%	2.2%	29.8%	23.7%	35.3%

Summary Conclusions

The partisan general election analysis report by Dr. Palmer and Dr. Handley show that Black voters cohesively support Democratic candidates, regardless of whether those candidates are Black or White. Similarly, white voters cohesively vote for Republican candidates, and in opposition to Democratic candidates, regardless of whether those Democratic candidates are Black or white. Thus, it is cohesive Black voter support for *Democratic* candidates, and white voter support for *Republican* candidates that the general election analysis reveals, not cohesive Black voter support for *Black* candidates and white voter support for *white* candidates. Nonetheless, the voting pattern is clearly one of partisan polarized voting, with both highly cohesive Black vote for the Democrat and highly cohesive white vote for the Republican candidate. The more limited analysis of Democratic primaries reported by Dr. Handley shows a very different picture of voting behavior from the general elections. Nothing even approaching the levels of Black and white cohesion seen in the general elections appears anywhere in the

primary contests, and the overall patterns are mixed and variable even within the same set of voters on the same day as we see in the multiple contests in the 2018 Democratic primary. Similarly, the 2022 U.S. Senate Republican primary indicates that white Republican primary voters are willing to support a Black Republican candidate over multiple white opponents.

February 6, 2023



John R. Alford, Ph.D.

Appendix 1

CV

John R. Alford

Curriculum Vitae
January 2023

Dept. of Political Science
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Employment:

Professor, Rice University, 2015 to present.
Associate Professor, Rice University, 1985-2015.
Assistant Professor, University of Georgia, 1981-1985.
Instructor, Oakland University, 1980-1981.
Teaching-Research Fellow, University of Iowa, 1977-1980.
Research Associate, Institute for Urban Studies, Houston, Texas, 1976-1977.

Education:

Ph.D., University of Iowa, Political Science, 1981.
M.A., University of Iowa, Political Science, 1980.
M.P.A., University of Houston, Public Administration, 1977.
B.S., University of Houston, Political Science, 1975.

Books:

Predisposed: Liberals, Conservatives, and the Biology of Political Differences. New York: Routledge, 2013. Co-authors, John R. Hibbing and Kevin B. Smith.

Articles:

"Political Orientations Vary with Detection of Androstenone," with Amanda Friesen, Michael Gruszczynski, and Kevin B. Smith. **Politics and the Life Sciences**. (Spring, 2020).

"Intuitive ethics and political orientations: Testing moral foundations as a theory of political ideology." with Kevin Smith, John Hibbing, Nicholas Martin, and Peter Hatemi. **American Journal of Political Science**. (April, 2017).

"The Genetic and Environmental Foundations of Political, Psychological, Social, and Economic Behaviors: A Panel Study of Twins and Families." with Peter Hatemi, Kevin Smith, and John Hibbing. **Twin Research and Human Genetics**. (May, 2015.)

"Liberals and conservatives: Non-convertible currencies." with John R. Hibbing and Kevin B. Smith. **Behavioral and Brain Sciences** (January, 2015).

"Non-Political Images Evoke Neural Predictors Of Political Ideology." with Woo-Young Ahn, Kenneth T. Kishida, Xiaosi Gu, Terry Lohrenz, Ann Harvey, Kevin Smith, Gideon Yaffe, John Hibbing, Peter Dayan, P. Read Montague. **Current Biology**. (November, 2014).

"Cortisol and Politics: Variance in Voting Behavior is Predicted by Baseline Cortisol Levels." with Jeffrey French, Kevin Smith, Adam Guck, Andrew Birnie, and John Hibbing. **Physiology & Behavior**. (June, 2014).

"Differences in Negativity Bias Underlie Variations in Political Ideology." with Kevin B. Smith and John R. Hibbing. **Behavioral and Brain Sciences**. (June, 2014).

"Negativity bias and political preferences: A response to commentators Response." with Kevin B. Smith and John R. Hibbing. **Behavioral and Brain Sciences**. (June, 2014).

"Genetic and Environmental Transmission of Political Orientations." with Carolyn L. Funk, Matthew Hibbing, Kevin B. Smith, Nicholas R. Eaton, Robert F. Krueger, Lindon J. Eaves, John R. Hibbing. **Political Psychology**, (December, 2013).

"Biology, Ideology, and Epistemology: How Do We Know Political Attitudes Are Inherited and Why Should We Care?" with Kevin Smith, Peter K. Hatemi, Lindon J. Eaves, Carolyn Funk, and John R. Hibbing. **American Journal of Political Science**. (January, 2012)

"Disgust Sensitivity and the Neurophysiology of Left-Right Political Orientations." with Kevin Smith, John Hibbing, Douglas Oxley, and Matthew Hibbing, **PlosONE**, (October, 2011).

"Linking Genetics and Political Attitudes: Re-Conceptualizing Political Ideology." with Kevin Smith, John Hibbing, Douglas Oxley, and Matthew Hibbing, **Political Psychology**, (June, 2011).

"The Politics of Mate Choice." with Peter Hatemi, John R. Hibbing, Nicholas Martin and Lindon Eaves, **Journal of Politics**, (March, 2011).

"Not by Twins Alone: Using the Extended Twin Family Design to Investigate the Genetic Basis of Political Beliefs" with Peter Hatemi, John Hibbing, Sarah Medland, Matthew Keller, Kevin Smith, Nicholas Martin, and Lindon Eaves, **American Journal of Political Science**, (July, 2010).

"The Ultimate Source of Political Opinions: Genes and the Environment" with John R. Hibbing in **Understanding Public Opinion**, 3rd Edition eds. Barbara Norrander and Clyde Wilcox, Washington D.C.: CQ Press, (2010).

"Is There a 'Party' in your Genes" with Peter Hatemi, John R. Hibbing, Nicholas Martin and Lindon Eaves, **Political Research Quarterly**, (September, 2009).

"Twin Studies, Molecular Genetics, Politics, and Tolerance: A Response to Beckwith and Morris" with John R. Hibbing and Cary Funk, **Perspectives on Politics**, (December, 2008). This is a solicited response to a critique of our 2005 APSR article "Are Political Orientations Genetically Transmitted?"

"Political Attitudes Vary with Physiological Traits" with Douglas R. Oxley, Kevin B. Smith, Matthew V. Hibbing, Jennifer L. Miller, Mario Scalora, Peter K. Hatemi, and John R. Hibbing, **Science**, (September 19, 2008).

"The New Empirical Biopolitics" with John R. Hibbing, **Annual Review of Political Science**, (June, 2008).

"Beyond Liberals and Conservatives to Political Genotypes and Phenotypes" with John R. Hibbing and Cary Funk, **Perspectives on Politics**, (June, 2008). This is a solicited response to a critique of our 2005 APSR article "Are Political Orientations Genetically Transmitted?"

"Personal, Interpersonal, and Political Temperaments" with John R. Hibbing, **Annals of the American Academy of Political and Social Science**, (November, 2007).

"Is Politics in our Genes?" with John R. Hibbing, **Tidsskriftet Politik**, (February, 2007).

"Biology and Rational Choice" with John R. Hibbing, **The Political Economist**, (Fall, 2005)

"Are Political Orientations Genetically Transmitted?" with John R. Hibbing and Carolyn Funk, **American Political Science Review**, (May, 2005). (The main findings table from this article has been reprinted in two college level text books - Psychology, 9th ed. and Invitation to Psychology 4th ed. both by Wade and Tavris, Prentice Hall, 2007).

"The Origin of Politics: An Evolutionary Theory of Political Behavior" with John R. Hibbing, **Perspectives on Politics**, (December, 2004).

"Accepting Authoritative Decisions: Humans as Wary Cooperators" with John R. Hibbing, **American Journal of Political Science**, (January, 2004).

"Electoral Convergence of the Two Houses of Congress" with John R. Hibbing, in **The Exceptional Senate**, ed. Bruce Oppenheimer, Columbus: Ohio State University Press, (2002).

"We're All in this Together: The Decline of Trust in Government, 1958-1996." in **What is it About Government that Americans Dislike?**, eds. John Hibbing and Beth Theiss-Morse, Cambridge: Cambridge University Press, (2001).

"The 2000 Census and the New Redistricting," **Texas State Bar Association School Law Section Newsletter**, (July, 2000).

"Overdraft: The Political Cost of Congressional Malfeasance" with Holly Teeters, Dan Ward, and Rick Wilson, **Journal of Politics** (August, 1994).

"Personal and Partisan Advantage in U.S. Congressional Elections, 1846-1990" with David W. Brady, in **Congress Reconsidered** 5th edition, eds. Larry Dodd and Bruce Oppenheimer, CQ Press, (1993).

"The 1990 Congressional Election Results and the Fallacy that They Embodied an Anti-Incumbent Mood" with John R. Hibbing, **PS** 25 (June, 1992).

"Constituency Population and Representation in the United States Senate" with John R. Hibbing. **Legislative Studies Quarterly**, (November, 1990).

"Editors' Introduction: Electing the U.S. Senate" with Bruce I. Oppenheimer. **Legislative Studies Quarterly**, (November, 1990).

"Personal and Partisan Advantage in U.S. Congressional Elections, 1846-1990" with David W. Brady, in **Congress Reconsidered** 4th edition, eds. Larry Dodd and Bruce Oppenheimer, CQ Press, (1988). Reprinted in The Congress of the United States, 1789-1989, ed. Joel Silby, Carlson Publishing Inc., (1991), and in The Quest for Office, eds. Wayne and Wilcox, St. Martins Press, (1991).

"Can Government Regulate Fertility? An Assessment of Pro-natalist Policy in Eastern Europe" with Jerome Legge. **The Western Political Quarterly** (December, 1986).

"Partisanship and Voting" with James Campbell, Mary Munro, and Bruce Campbell, in **Research in Micropolitics. Volume 1 - Voting Behavior**. Samuel Long, ed. JAI Press, (1986).

"Economic Conditions and Individual Vote in the Federal Republic of Germany" with Jerome S. Legge. **Journal of Politics** (November, 1984).

"Television Markets and Congressional Elections" with James Campbell and Keith Henry. **Legislative Studies Quarterly** (November, 1984).

"Economic Conditions and the Forgotten Side of Congress: A Foray into U.S. Senate Elections" with John R. Hibbing, **British Journal of Political Science** (October, 1982).

"Increased Incumbency Advantage in the House" with John R. Hibbing, **Journal of Politics** (November, 1981). Reprinted in The Congress of the United States, 1789-1989, Carlson Publishing Inc., (1991).

"The Electoral Impact of Economic Conditions: Who is Held Responsible?" with John R. Hibbing, **American Journal of Political Science** (August, 1981).

"Comment on Increased Incumbency Advantage" with John R. Hibbing, Refereed communication: **American Political Science Review** (March, 1981).

"Can Government Regulate Safety? The Coal Mine Example" with Michael Lewis-Beck, **American Political Science Review** (September, 1980).

Awards and Honors:

CQ Press Award - 1988, honoring the outstanding paper in legislative politics presented at the 1987 Annual Meeting of the American Political Science Association. Awarded for "The Demise of the Upper House and the Rise of the Senate: Electoral Responsiveness in the United States Senate" with John Hibbing.

Research Grants:

National Science Foundation, 2009-2011, "Identifying the Biological Influences on Political Temperaments", with John Hibbing, Kevin Smith, Kim Espy, Nicolas Martin and Read Montague. This is a collaborative project involving Rice, University of Nebraska, Baylor College of Medicine, and Queensland Institute for Medical Research.

National Science Foundation, 2007-2010, "Genes and Politics: Providing the Necessary Data", with John Hibbing, Kevin Smith, and Lindon Eaves. This is a collaborative project involving Rice, University of Nebraska, Virginia Commonwealth University, and the University of Minnesota.

National Science Foundation, 2007-2010, "Investigating the Genetic Basis of Economic Behavior", with John Hibbing and Kevin Smith. This is a collaborative project involving Rice, University of Nebraska, Virginia Commonwealth University, and the Queensland Institute of Medical Research.

Rice University Faculty Initiatives Fund, 2007-2009, "The Biological Substrates of Political Behavior". This is in assistance of a collaborative project involving Rice, Baylor College of Medicine, Queensland Institute of Medical Research, University of Nebraska, Virginia Commonwealth University, and the University of Minnesota.

National Science Foundation, 2004-2006, "Decision-Making on Behalf of Others", with John Hibbing. This is a collaborative project involving Rice and the University of Nebraska.

National Science Foundation, 2001-2002, dissertation grant for Kevin Arceneaux, "Doctoral Dissertation Research in Political Science: Voting Behavior in the Context of U.S. Federalism."

National Science Foundation, 2000-2001, dissertation grant for Stacy Ulbig, "Doctoral Dissertation Research in Political Science: Sub-national Contextual Influences on Political Trust."

National Science Foundation, 1999-2000, dissertation grant for Richard Engstrom, "Doctoral Dissertation Research in Political Science: Electoral District Structure and Political Behavior."

Rice University Research Grant, 1985, Recent Trends in British Parliamentary Elections.

Faculty Research Grants Program, University of Georgia, Summer, 1982. Impact of Media Structure on Congressional Elections, with James Campbell.

Papers Presented:

"The Physiological Basis of Political Temperaments" 6th European Consortium for Political Research General Conference, Reykjavik, Iceland (2011), with Kevin Smith, and John Hibbing.

"Identifying the Biological Influences on Political Temperaments" National Science Foundation Annual Human Social Dynamics Meeting (2010), with John Hibbing, Kimberly Espy, Nicholas Martin, Read Montague, and Kevin B. Smith.

"Political Orientations May Be Related to Detection of the Odor of Androstenone" Annual meeting of the Midwest Political Science Association, Chicago, IL (2010), with Kevin Smith, Amanda Balzer, Michael Gruszczynski, Carly M. Jacobs, and John Hibbing.

"Toward a Modern View of Political Man: Genetic and Environmental Transmission of Political Orientations from Attitude Intensity to Political Participation" Annual meeting of the American Political Science Association, Washington, DC (2010), with Carolyn Funk, Kevin Smith, and John Hibbing.

"Genetic and Environmental Transmission of Political Involvement from Attitude Intensity to Political Participation" Annual meeting of the International Society for Political Psychology, San Francisco, CA (2010), with Carolyn Funk, Kevin Smith, and John Hibbing.

"Are Violations of the EEA Relevant to Political Attitudes and Behaviors?" Annual meeting of the Midwest Political Science Association, Chicago, IL (2010), with Kevin Smith, and John Hibbing.

"The Neural Basis of Representation" Annual meeting of the American Political Science Association, Toronto, Canada (2009), with John Hibbing.

"Genetic and Environmental Transmission of Value Orientations" Annual meeting of the American Political Science Association, Toronto, Canada (2009), with Carolyn Funk, Kevin Smith, Matthew Hibbing, Pete Hatemi, Robert Krueger, Lindon Eaves, and John Hibbing.

"The Genetic Heritability of Political Orientations: A New Twin Study of Political Attitudes" Annual Meeting of the International Society for Political Psychology, Dublin, Ireland (2009), with John Hibbing, Cary Funk, Kevin Smith, and Peter K Hatemi.

"The Heritability of Value Orientations" Annual meeting of the Behavior Genetics Association, Minneapolis, MN (2009), with Kevin Smith, John Hibbing, Carolyn Funk, Robert Krueger, Peter Hatemi, and Lindon Eaves.

"The Ick Factor: Disgust Sensitivity as a Predictor of Political Attitudes" Annual meeting of the Midwest Political Science Association, Chicago, IL (2009), with Kevin Smith, Douglas Oxley Matthew Hibbing, and John Hibbing.

"The Ideological Animal: The Origins and Implications of Ideology" Annual meeting of the American Political Science Association, Boston, MA (2008), with Kevin Smith, Matthew Hibbing, Douglas Oxley, and John Hibbing.

"The Physiological Differences of Liberals and Conservatives" Annual meeting of the Midwest Political Science Association, Chicago, IL (2008), with Kevin Smith, Douglas Oxley, and John Hibbing.

"Looking for Political Genes: The Influence of Serotonin on Political and Social Values" Annual meeting of the Midwest Political Science Association, Chicago, IL (2008), with Peter Hatemi, Sarah Medland, John Hibbing, and Nicholas Martin.

"Not by Twins Alone: Using the Extended Twin Family Design to Investigate the Genetic Basis of Political Beliefs" Annual meeting of the American Political Science Association, Chicago, IL (2007), with Peter Hatemi, John Hibbing, Matthew Keller, Nicholas Martin, Sarah Medland, and Lindon Eaves.

"Factorial Association: A generalization of the Fulker between-within model to the multivariate case" Annual meeting of the Behavior Genetics Association, Amsterdam, The Netherlands (2007), with Sarah Medland, Peter Hatemi, John Hibbing, William Coventry, Nicholas Martin, and Michael Neale.

"Not by Twins Alone: Using the Extended Twin Family Design to Investigate the Genetic Basis of Political Beliefs" Annual meeting of the Midwest Political Science Association, Chicago, IL (2007), with Peter Hatemi, John Hibbing, Nicholas Martin, and Lindon Eaves.

"Getting from Genes to Politics: The Connecting Role of Emotion-Reading Capability" Annual Meeting of the International Society for Political Psychology, Portland, OR, (2007.), with John Hibbing.

"The Neurological Basis of Representative Democracy." Hendricks Conference on Political Behavior, Lincoln, NE (2006), with John Hibbing.

"The Neural Basis of Representative Democracy" Annual meeting of the American Political Science Association, Philadelphia, PA (2006), with John Hibbing.

"How are Political Orientations Genetically Transmitted? A Research Agenda" Annual meeting of the Midwest Political Science Association, Chicago Illinois (2006), with John Hibbing.

"The Politics of Mate Choice" Annual meeting of the Southern Political Science Association, Atlanta, GA (2006), with John Hibbing.

"The Challenge Evolutionary Biology Poses for Rational Choice" Annual meeting of the American Political Science Association, Washington, DC (2005), with John Hibbing and Kevin Smith.

"Decision Making on Behalf of Others" Annual meeting of the American Political Science Association, Washington, DC (2005), with John Hibbing.

"The Source of Political Attitudes and Behavior: Assessing Genetic and Environmental Contributions" Annual meeting of the Midwest Political Science Association, Chicago Illinois (2005), with John Hibbing and Carolyn Funk.

"The Source of Political Attitudes and Behavior: Assessing Genetic and Environmental Contributions" Annual meeting of the American Political Science Association, Chicago Illinois (2004), with John Hibbing and Carolyn Funk.

"Accepting Authoritative Decisions: Humans as Wary Cooperators" Annual Meeting of the Midwest Political Science Association, Chicago, Illinois (2002), with John Hibbing

"Can We Trust the NES Trust Measure?" Annual Meeting of the Midwest Political Science Association, Chicago, Illinois (2001), with Stacy Ulbig.

"The Impact of Organizational Structure on the Production of Social Capital Among Group Members" Annual Meeting of the Southern Political Science Association, Atlanta, Georgia (2000), with Allison Rinden.

"Isolating the Origins of Incumbency Advantage: An Analysis of House Primaries, 1956-1998" Annual Meeting of the Southern Political Science Association, Atlanta, Georgia (2000), with Kevin Arceneaux.

"The Electorally Indistinct Senate," Norman Thomas Conference on Senate Exceptionalism, Vanderbilt University; Nashville, Tennessee; October (1999), with John R. Hibbing.

"Interest Group Participation and Social Capital" Annual Meeting of the Midwest Political Science Association, Chicago, Illinois (1999), with Allison Rinden.

"We're All in this Together: The Decline of Trust in Government, 1958-1996." The Hendricks Symposium, University of Nebraska, Lincoln. (1998)

"Constituency Population and Representation in the United States Senate," Electing the Senate; Houston, Texas; December (1989), with John R. Hibbing.

"The Disparate Electoral Security of House and Senate Incumbents," American Political Science Association Annual Meetings; Atlanta, Georgia; September (1989), with John R. Hibbing.

"Partisan and Incumbent Advantage in House Elections," Annual Meeting of the Southern Political Science Association (1987), with David W. Brady.

"Personal and Party Advantage in U.S. House Elections, 1846-1986" with David W. Brady, 1987 Social Science History Association Meetings.

"The Demise of the Upper House and the Rise of the Senate: Electoral Responsiveness in the United States Senate" with John Hibbing, 1987 Annual Meeting of the American Political Science Association.

"A Comparative Analysis of Economic Voting" with Jerome Legge, 1985 Annual Meeting of the American Political Science Association.

"An Analysis of Economic Conditions and the Individual Vote in Great Britain, 1964-1979" with Jerome Legge, 1985 Annual Meeting of the Western Political Science Association.

"Can Government Regulate Fertility? An Assessment of Pro-natalist Policy in Eastern Europe" with Jerome Legge, 1985 Annual Meeting of the Southwestern Social Science Association.

"Economic Conditions and the Individual Vote in the Federal Republic of Germany" with Jerome S. Legge, 1984 Annual Meeting of the Southern Political Science Association.

"The Conditions Required for Economic Issue Voting" with John R. Hibbing, 1984 Annual Meeting of the Midwest Political Science Association.

"Incumbency Advantage in Senate Elections," 1983 Annual Meeting of the Midwest Political Science Association.

"Television Markets and Congressional Elections: The Impact of Market/District Congruence" with James Campbell and Keith Henry, 1982 Annual Meeting of the Southern Political Science Association.

"Economic Conditions and Senate Elections" with John R. Hibbing, 1982 Annual Meeting of the Midwest Political Science Association. "Pocketbook Voting: Economic Conditions and Individual Level Voting," 1982 Annual Meeting of the American Political Science Association.

"Increased Incumbency Advantage in the House," with John R. Hibbing, 1981 Annual Meeting of the Midwest Political Science Association.

Other Conference Participation:

Roundtable Participant – Closing Round-table on Biopolitics; 2016 UC Merced Conference on Bio-Politics and Political Psychology, Merced, CA.

Roundtable Participant "Genes, Brains, and Core Political Orientations" 2008 Annual Meeting of the Southwestern Political Science Association, Las Vegas.

Roundtable Participant "Politics in the Laboratory" 2007 Annual Meeting of the Southern Political Science Association, New Orleans.

Short Course Lecturer, "What Neuroscience has to Offer Political Science" 2006 Annual Meeting of the American Political Science Association.

Panel chair and discussant, "Neuro-scientific Advances in the Study of Political Science" 2006 Annual Meeting of the American Political Science Association.

Presentation, "The Twin Study Approach to Assessing Genetic Influences on Political Behavior" Rice Conference on New Methods for Understanding Political Behavior, 2005.

Panel discussant, "The Political Consequences of Redistricting," 2002 Annual Meeting of the American Political Science Association.

Panel discussant, "Race and Redistricting," 1999 Annual Meeting of the Midwest Political Science Association.

Invited participant, "Roundtable on Public Dissatisfaction with American Political Institutions", 1998 Annual Meeting of the Southwestern Social Science Association.

Presentation, "Redistricting in the '90s," Texas Economic and Demographic Association, 1997.

Panel chair, "Congressional Elections," 1992 Annual Meeting of the Southern Political Science Association.

Panel discussant, "Incumbency and Congressional Elections," 1992 Annual Meeting of the American Political Science Association.

Panel chair, "Issues in Legislative Elections," 1991 Annual Meeting of the Midwest Political Science Association.

Panel chair, "Economic Attitudes and Public Policy in Europe," 1990 Annual Meeting of the Southern Political Science Association

Panel discussant, "Retrospective Voting in U.S. Elections," 1990 Annual Meeting of the Midwest Political Science Association.

Co-convener, with Bruce Oppenheimer, of Electing the Senate, a national conference on the NES 1988 Senate Election Study. Funded by the Rice Institute for Policy Analysis, the University of Houston Center for Public Policy, and the National Science Foundation, Houston, Texas, December, 1989.

Invited participant, Understanding Congress: A Bicentennial Research Conference, Washington, D.C., February, 1989.

Invited participant--Hendricks Symposium on the United States Senate, University of Nebraska, Lincoln, Nebraska, October, 1988

Invited participant--Conference on the History of Congress, Stanford University, Stanford, California, June, 1988.

Invited participant, "Roundtable on Partisan Realignment in the 1980's", 1987 Annual Meeting of the Southern Political Science Association.

Professional Activities:

Other Universities:

Invited Speaker, Annual Lecture, Psi Kappa -the Psychology Club at Houston Community College, 2018.

Invited Speaker, Annual Allman Family Lecture, Dedman College Interdisciplinary Institute, Southern Methodist University, 2016.

Invited Speaker, Annual Lecture, Psi Sigma Alpha – Political Science Dept., Oklahoma State University, 2015.

Invited Lecturer, Department of Political Science, Vanderbilt University, 2014.

Invited Speaker, Annual Lecture, Psi Kappa -the Psychology Club at Houston Community College, 2014.

Invited Speaker, Graduate Student Colloquium, Department of Political Science, University of New Mexico, 2013.

Invited Keynote Speaker, Political Science Alumni Evening, University of Houston, 2013.

Invited Lecturer, Biology and Politics Masters Seminar (John Geer and David Bader), Department of Political Science and Biology Department, Vanderbilt University, 2010.

Invited Lecturer, Biology and Politics Senior Seminar (John Geer and David Bader), Department of Political Science and Biology Department, Vanderbilt University, 2008.

Visiting Fellow, the Hoover Institution, Stanford University, 2007.

Invited Speaker, Joint Political Psychology Graduate Seminar, University of Minnesota, 2007.

Invited Speaker, Department of Political Science, Vanderbilt University, 2006.

Member:

Editorial Board, Journal of Politics, 2007-2008.

Planning Committee for the National Election Studies' Senate Election Study, 1990-92.

Nominations Committee, Social Science History Association, 1988

Reviewer for:

American Journal of Political Science
American Political Science Review
American Politics Research
American Politics Quarterly
American Psychologist
American Sociological Review
Canadian Journal of Political Science
Comparative Politics
Electoral Studies
Evolution and Human Behavior
International Studies Quarterly

Journal of Politics
Journal of Urban Affairs
Legislative Studies Quarterly
National Science Foundation
PLoS ONE
Policy Studies Review
Political Behavior
Political Communication
Political Psychology
Political Research Quarterly
Public Opinion Quarterly
Science
Security Studies
Social Forces
Social Science Quarterly
Western Political Quarterly

University Service:

Member, University Senate, 2021-2023.

Member, University Parking Committee, 2016-2022.

Member, University Benefits Committee, 2013-2016.

Internship Director for the Department of Political Science, 2004-2018.

Member, University Council, 2012-2013.

Invited Speaker, Rice Classroom Connect, 2016.

Invited Speaker, Glasscock School, 2016.

Invited Speaker, Rice Alumni Association, Austin, 2016.

Invited Speaker, Rice Alumni Association, New York City, 2016.

Invited Speaker, Rice TEDxRiceU , 2013.

Invited Speaker, Rice Alumni Association, Atlanta, 2011.

Lecturer, Advanced Topics in AP Psychology, Rice University AP Summer Institute, 2009.

Scientia Lecture Series: "Politics in Our Genes: The Biology of Ideology" 2008

Invited Speaker, Rice Alumni Association, Seattle, San Francisco and Los Angeles, 2008.

Invited Speaker, Rice Alumni Association, Austin, Chicago and Washington, DC, 2006.

Invited Speaker, Rice Alumni Association, Dallas and New York, 2005.

Director: Rice University Behavioral Research Lab and Social Science Computing Lab, 2005-2006.

University Official Representative to the Inter-university Consortium for Political and Social Research, 1989-2012.

Director: Rice University Social Science Computing Lab, 1989-2004.

Member, Rice University Information Technology Access and Security Committee, 2001-2002

Rice University Committee on Computers, Member, 1988-1992, 1995-1996; Chair, 1996-1998, Co-chair, 1999.

Acting Chairman, Rice Institute for Policy Analysis, 1991-1992.

Divisional Member of the John W. Gardner Dissertation Award Selection Committee, 1998

Social Science Representative to the Educational Sub-committee of the Computer Planning Committee, 1989-1990.

Director of Graduate Admissions, Department of Political Science, Rice University, 1986-1988.

Co-director, Mellon Workshop: Southern Politics, May, 1988.

Guest Lecturer, Mellon Workshop: The U.S. Congress in Historical Perspective, May, 1987 and 1988.

Faculty Associate, Hanszen College, Rice University, 1987-1990.

Director, Political Data Analysis Center, University of Georgia, 1982-1985.

External Consulting:

Expert Witness, Soto Palmer v. Hobbs, (Washington State), racially polarized voting analysis, 2022.

Expert Witness, Pendergrass v. Raffensperger, (Georgia State House and Senate), racially polarized voting analysis, 2022.

Expert Witness, LULAC, et al. v. Abbott, et al., Voto Latino, et al. v. Scott, et al., Mexican American Legislative Caucus, et al. v. Texas, et al., Texas NAACP v. Abbott, et al., Fair Maps Texas, et al. v. Abbott, et al., US v. Texas, et al. (consolidated cases) challenges to Texas Congressional, State Senate, State House, and State Board of Education districting, 2022.

Expert Witness, Robinson/Galmon v. Ardoin, (Louisiana), racially polarized voting analysis, 2022.

Expert Witness, Christian Ministerial Alliance et al v. Arkansas, racially polarized voting analysis, 2022.

Expert Witness, Johnson v. Wisconsin Elections Commission, 2022.

Expert Witness, Rivera, et al. v. Schwab, Alonzo, et al. v. Schwab, Frick, et al. v. Schwab, (consolidated cases) challenge to Kansas congressional map, 2022.

Expert Witness, Grant v. Raffensperger, challenge to Georgia congressional map, 2022

Expert Witness, Brooks et al. v. Abbot, challenge to State Senate District 10, 2022.

Expert Witness, Elizondo v. Spring Branch ISD, 2022.

Expert Witness, Portugal v. Franklin County, et al., challenge to Franklin County, Washington at large County Commissioner's election system, 2022.

Consulting Expert, Gressman Math/Science Petitioners, Pennsylvania Congressional redistricting, 2022.

Consultant, Houston Community College – evaluation of election impact for redrawing of college board election districts, 2022.

Consultant, Lone Star College – evaluation of election impact for redrawing of college board election districts, 2022.

Consultant, Killeen ISD – evaluation of election impact for redrawing of school board election districts, 2022.

Consultant, Houston ISD – evaluation of election impact for redrawing of school board election districts, 2022.

Consultant, Brazosport ISD – evaluation of election impact for redrawing of school board election districts, 2022.

Consultant, Dallas ISD – evaluation of election impact for redrawing of school board election districts, 2022.

Consultant, Lancaster ISD – redrawing of all school board member election districts including demographic analysis and redrawing of election districts, 2021.

Consultant, City of Baytown – redrawing of all city council member election districts including demographic analysis and redrawing of election districts, 2021.

Consultant, Goose Creek ISD – redrawing of all board member election districts including demographic analysis and redrawing of election districts, 2021.

Expert Witness, Bruni et al. v. State of Texas, straight ticket voting analysis, 2020.

Consulting Expert, Sarasota County, VRA challenge to district map, 2020.

Expert Witness, Kumar v. Frisco ISD, TX, racially polarized voting analysis, 2019.

Expert Witness, Vaughan v. Lewisville ISD, TX, racially polarized voting analysis, 2019.

Expert Witness, Johnson v. Ardoin, (Louisiana), racially polarized voting analysis, 2019.

Expert Witness, Flores et al. v. Town of Islip, NY, racially polarized voting analysis, 2018.

Expert Witness, Tyson v. Richardson ISD, racially polarized voting analysis, 2018.

Expert Witness, Dwight v. State of Georgia, racially polarized voting analysis, 2018.

Expert Witness, NAACP v. East Ramapo Central School District, racially polarized voting analysis, 2018.

Expert Witness, Georgia NAACP v. State of Georgia, racially polarized voting analysis, 2018.