

**UNITED STATES DISTRICT COURT FOR THE  
NORTHERN DISTRICT OF GEORGIA  
GAINESVILLE DIVISION**

FAIR FIGHT, INC., et al.,

Plaintiffs,

v.

TRUE THE VOTE, INC., et al.,

Defendants,

**Case No. 2:20-CV-00302-SCJ**

**DECLARATION OF DR. KENNETH MAYER**

I, Dr. Kenneth Mayer, make the following declaration:

1. I was retained by Plaintiffs in this case to provide the expert opinions set forth in my expert report attached as Exhibit A to this declaration.
2. The statements in my expert report, attached as Exhibit A, are true and correct to the best of my personal knowledge.
3. If called as a witness, I will testify to the expert opinions and conclusions offered in my expert report and the bases for those opinions, all of which are matters within my personal knowledge.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 15<sup>th</sup> day of May, 2022.

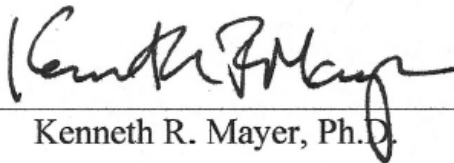
Kenneth Mayer  
Dr. Kenneth R. Mayer

## **Exhibit A**

***Fair Fight Inc., et al. v. True the Vote, Inc., et al.***, Case No. 2:20-CV-00302-SCJ

**United States District Court for the Northern District of Georgia**

**Expert Report of Kenneth R. Mayer, PhD**



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Kenneth R. Mayer, Ph.D.

May 14, 2021

## **I. Introduction**

I have been asked by counsel in this matter to analyze and evaluate files (referred to herein as the “challenge file”) generated by True the Vote, Inc., that purport to identify registered voters across 65 counties in Georgia who are allegedly ineligible to vote because they appear to have moved to a different address, either out-of-state or to a different county in Georgia, than the address on file with county election officials.

True the Vote appears to have attempted to conduct a “record linkage” process in which names and addresses in Georgia’s statewide file of registered voters (the “voter file”) are matched to names and addresses in what is commonly referred to as the National Change of Address (“NCOA”) Registry—a national file of individuals who have submitted an NCOA request to the U.S. Postal Service. The names and addresses that “matched” across the voter file and the NCOA Registry were extracted and placed into True the Vote’s “challenge file,” with each matched record claiming to represent an ineligible registrant. As I show below, the practice of record linkage is extremely difficult and error-prone when there are no unique identifiers that identify the same individual in the files being linked, as is the case here. In fact, names and addresses are far from unique in the voter file, where over 85,000 name and address combinations appear more than once. It is possible that True the Vote relied on data besides the NCOA Registry, given the nonspecific references to

“available government and commercially available information” in its explanation of methods (see section VIII), but that would not change any of my conclusions, because the errors in the challenge file are apparent in any case.

The result is a challenge file generated by True the Vote that is riddled with errors; has no meaningful checks on the validity of its results; contains false positives, missing data, incorrect matches, improperly formatted and entered data, and mistakes in the matching fields; and almost certainly links between an NCOA record and a different individual in the voter file, registrants who have changed their names, registrants who clearly have not moved, and individuals who are not registered to vote in Georgia. The results do not come anywhere close to what would be required for valid practices in academic studies of election administration (Ansolabehere and Hersh 2017; Enamorado, Fifield, and Imai. 2019; Huber et al. 2021).

Moreover, *even if* True the Vote had identified with 100% accuracy every registrant who had moved (and it most decidedly has not), the fact that a voter has moved *does not* mean that the voter’s eligibility is in question. Tens of thousands of records in True the Vote’s challenge file show an address near or on a military installation (including hundreds of records in which the address itself is a military base), or in or near a municipality with a university. I identified over 55,000 registrants in the challenge file who fall into one of these categories.

Finally, challenging voters based on an NCOA match alone has a clear disparate racial effect. Generally, African American voters are more likely to be incorrectly flagged through these processes, and the disparities in this instance are exacerbated by the fact that True the Vote has selected only 65 of Georgia's 159 counties for challenges. I show that the probability that a county was selected for challenges increases as the percentage of African American registrants within that county increases. One effect of this bias is that African Americans constitute a much higher percentage of challenged in-state movers (38.4%) than their representation in the voter file (29.9%). Because of these racially disproportionate and invalid challenges to their eligibility, African American registrants are more likely than white registrants to be deterred from voting altogether.

In sum, True the Vote has relied on a fundamentally unreliable method using flawed data, which produced erroneous results with a clear disparate racial effect.

## **II. Summary of Conclusions**

My overall conclusions in this report are summarized as follows:

### **A. The data used to construct the challenge file, and the methods used to identify registrants who have allegedly moved, are unreliable.**

*First*, True the Vote's descriptions of its methodology to conduct the record linkage are entirely inadequate from an academic or scientific perspective and provably incorrect. The descriptions lack basic information that would be provided in any credible effort, such as how the voter file data was matched to the NCOA file,

who performed the match, the date the match was performed, the date the underlying files were generated, what fields were used to match, whether the records were matched based on exact or partial matching, whether or how the data were pre-processed prior to the NCOA match, and how many records were removed from the list of matched records (and why).

*Second*, the matching across the voter file and NCOA file appears to have been conducted using only a registrant's first name, last name, and address—a field triplet with over 85,000 records duplicated at least once in the voter file (e.g., two or more John Smiths registered at the same address in the voter file). This guarantees that matching errors will occur: individuals in the NCOA registry will be linked to a different individual in the voter file.

*Third*, True the Vote did not conduct any meaningful checks on the validity of its data, relying on demonstrably inadequate methods. These included relying on a printing company, with no apparent experience in analyzing voter files, to review the matches before printing the challenged voter lists.<sup>1</sup>

*Fourth*, the challenge file shows tens of thousands of errors—a result of True the Vote and its partners failing to adhere to commonly accepted practices in complex record linkage—including: (1) ensuring that fields used to link voter

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<sup>1</sup> OPSEC 0033.

records in different databases conform with respect to data format, values, and data type, (2) ensuring that fields used to identify individuals are unique (or as close to unique as the data permit), and (3) ensuring that the underlying data are accurate, and checking the validity of the results.

*Fifth*, True the Vote's challenge file contains huge numbers of missing values for crucial fields. For example, no middle initials or name suffixes are recorded for anyone in the challenge file. This inevitably increases the number of erroneous matches because middle names and suffixes provide additional identifying information and reduce the number of duplicate records. Other examples of missing or erroneous fields include:

- Over 15,000 records in the challenge file have a missing value for the street address where a registrant is alleged to have *moved to*.
- Over 9,000 records in the challenge file from Henry County incorrectly list the municipality name as the registrant's zip code.

*Finally*, True the Vote appears to have received reports on the results of the matching process that included data on registrants in the challenge file that bears no conceivable connection to the purported goal of identifying ineligible voters, including: the percentage of registrants who own a business, median income, household income distribution, gender, home ownership rates, home values,



charitable giving, marital status, net worth, occupation, political party, religion, and presence of children in the household.

**B. The unreliable methods employed in constructing the challenge lists generated tens of thousands of obvious errors.**

Keeping in mind that every record in the challenge file purports to identify an individual who is ineligible to vote, the challenge file contains tens of thousands of obvious errors, including:

- Duplicated matches to non-unique records in the voter file. In other words, the same person in the NCOA file is linked to multiple individuals in the voter file, and there is no way to know if the individual in the NCOA registry is linked to the same individual in the voter file;
- Registrants who have not moved at all;
- Registrants in the challenge file who are linked to a voter with an entirely different name in the voter file;
- Registrants alleged to have moved but who have no new address (a blank field);
- Registrants who have already re-registered at their new address; and
- Individuals who are not even registered to vote in Georgia.

**C. NCOA data cannot be used to conclude a registrant is ineligible to vote.**

Even if the NCOA match process was conducted perfectly (it was not), and even if the data identified with 100% accuracy voters who have moved (it did not), the fact that a registrant appears in the NCOA Registry cannot be used to conclude that these registrants are ineligible to vote. Tens of thousands of registrants in the challenge file, even if they have actually changed addresses, have plausible reasons for moving while still retaining their eligibility to vote in Georgia. For example:

- Nearly 23,000 registrants in the challenge file show a new address near (or in some cases, *on*) a military installation.
- Over 34,000 registrants in the challenge file show a new address in or near a municipality with a major college or university. The challenge file data is consistent with data from Georgia educational authorities regarding the colleges and universities that graduating high school seniors are most likely to attend.

Military personnel serving at an installation away from home and college students moving to attend school are archetypes of legitimate absentee voters.

**D. True the Vote's challenges were targeted toward counties with disproportionately higher minority populations.**

The challenge file consists of data from only 65 of Georgia's 159 counties. Counties in the Atlanta area were more likely to be selected for challenges than

counties elsewhere in the state. Counties with higher percentages of African American voters were also more likely to be selected for challenges. Peer-reviewed research has shown that use of NCOA matching has a disproportionate effect on minority voters and is more likely to produce inaccurate results for minority voters compared to white voters.

**E. Erroneous accusations of unlawful voting or ineligibility impose significant costs.**

Allegations of ineligibility deter voting, both by raising the administrative costs for registrants who must take additional steps to prove their eligibility, and by increasing the perceived legal risks of voting even if the individual is properly registered and eligible to vote in Georgia. True the Vote's mass challenges forced targeted voters to incur what may be perceived to be a legal risk in voting—even if they are properly registered and eligible to vote—and will force them to incur the cost of proving their eligibility and potentially attending a hearing to ensure that their vote is counted and to avoid suspicion. The political science literature on voting has conclusively established that these types of costs often deter qualified individuals from exercising their right to vote, and they weigh most heavily on members of the electorate who have fewer resources and are least equipped to overcome additional barriers in the voting process.

### III. Qualifications and Expertise

I have a Ph.D. in political science from Yale University, where my graduate training included courses in econometrics and statistics. My undergraduate degree is from the University of California, San Diego, where I majored in political science and minored in applied mathematics. I have been on the faculty of the political science department at the University of Wisconsin-Madison since August 1989. My curriculum vitae is attached to this report as Appendix C.

All publications that I have authored and published in the past ten years appear in my curriculum vitae. Those publications include the following peer-reviewed journals: *Journal of Politics*, *American Journal of Political Science*, *Election Law Journal*, *Legislative Studies Quarterly*, *Presidential Studies Quarterly*, *American Politics Research*, *Congress and the Presidency*, *Public Administration Review*, *Political Research Quarterly*, and *PS: Political Science and Politics*. I have also published in law reviews, including the *Richmond Law Review*, the *UCLA Pacific Basin Law Journal*, and the *University of Utah Law Review*. My work on campaign finance has been published in *Legislative Studies Quarterly*, *Regulation*, *PS: Political Science and Politics*, *Richmond Law Review*, the *Democratic Audit of Australia*, and in an edited volume on electoral competitiveness published by the Brookings Institution Press. My research on campaign finance has been cited by the

U.S. Government Accountability Office and by legislative research offices in Connecticut and Wisconsin.

My work on election administration has been published in the *Election Law Journal*, *American Journal of Political Science*, *Public Administration Review*, *Political Research Quarterly*, and *American Politics Research*. I was part of a research group retained by the Wisconsin Government Accountability Board to review their compliance with federal mandates and reporting systems under the Help America Vote Act and to survey local election officials throughout the state. I serve on the Steering Committee of the Wisconsin Elections Research Center, a unit within the UW-Madison College of Letters and Science. In 2012, I was retained by the U.S. Department of Justice to analyze data and methods regarding Florida's efforts to identify and remove claimed ineligible noncitizens from the statewide file of registered voters.

In the past five years, I have testified as an expert witness in trial or deposition in the following cases:

Federal: *Fair Fight Action v. Raffensperger*, No. 1:18-cv-05391-SCJ (N.D. Ga. 2019); *Kumar v. Frisco Independent School District*, No. 4:19-cv-00284 (E.D. Tex. 2019); *Vaughan v. Lewisville Independent School District*, No. 4:19-cv-00109 (E.D. Tex. 2019); *Dwight, et al. v Raffensperger*, No: 1:18-cv-2869-RWS (N.D. Ga. 2018); *League of Women Voters of Michigan, et al. v. Johnson*, No. 2:17-cv-14148-DPH-SDD (S.D. Mich. 2018); *One Wis. Institute, Inc. v. Thomsen* 198 F. Supp. 3d 896 (W.D. Wis. 2016); *Whitford v. Gill*, 218 F. Supp. 3d 837 (W.D. Wis. 2016).

State: *North Carolina Alliance for Retired Americans et al. v. North Carolina State Board of Elections* (Wake Cnty., NC); *Driscoll v. Stapleton*, No. DV 20 0408 (13<sup>th</sup> Judicial Ct. Yellowstone Cnty., Mont. 2020); *Priorities U.S.A, et al. v. Missouri, et al.*, No. 19AC-CC00226 (Cir. Ct. of Cole Cnty., Mo. 2018).

Courts consistently have accepted my expert opinions and the basis for those opinions. No court has ever excluded my expert opinion under *Daubert* or any other standard. Courts have cited my expert opinions in their decisions, finding my opinions reliable and persuasive. *See Driscoll v. Stapleton*, No. DV 20 0408 (13<sup>th</sup> Judicial Ct. Yellowstone Cnty., Mont., 2020); *Priorities U.S.A., et al. v. Missouri, et al.*, No. 19AC-CC00226 (Cir. Ct. Cole Cnty., Mo. 2018); *Whitford v. Gill*, 218 F. Supp. 3d 837 (W.D. Wis. 2016); *One Wis. Inst., Inc. v. Thomsen*, 198 F. Supp. 3d 896 (W.D. Wis. 2016); *Baldus v. Members of Wis. Gov't Accountability Bd.*, 849 F. Supp. 2d 840 (E.D. Wis. 2012); *Milwaukee Branch of the NAACP v. Walker*, 851 N.W. 2d 262 (Wis. 2014); *Baumgart v. Wendelberger*, No. 01-C-0121, 2002 WL 34127471 (E.D. Wis. May 30, 2002).

I am being compensated at my standard rate of \$450 an hour. My compensation is not dependent on my conclusions.

#### **IV. Data Sources**

In reaching my opinions in this report, I relied on the following data:

- Excel files that claim to show registered voters in Georgia, with a registration address in one of 65 counties, who filed a National Change of Address form with the U.S. Postal Service. I refer to the combined data including records from all 65 counties as the “challenge file.”

- Files I understand to have been produced in discovery:
  - a. TrueAppend report of demographic characteristics (OpSec 0009-0029);
  - b. December 16, 2020 email from Catherine Engelbrecht to Mark Williams requesting the removal of addresses “that would suggest they are military bases” (OpSec 0032-0033);
  - c. flowchart of data related to the Georgia voter file (OpSec 0049-0050);
  - d. graphic appearing to show deceased names associated with two Georgia addresses (OpSec 0059);
  - e. spreadsheet summarizing NCOA data for nine Georgia counties (OpSec 0051);
  - f. spreadsheet with two lines of identifying information about one Georgia individual (OPSEC 0060);
  - g. December 28, 2020 email from Catherine Engelbrecht to Amy Holsworth listing four steps taken to analyze NCOA data (Def TTV 1453); and
  - h. OpSec Group LLC Subpoena - Exhibit A Amended Responses, 12-13.
- A Georgia voter file of registered voters generated December 14, 2020;
- Georgia voter history files for the November 3, 2020 general election and the January 5, 2021 special election; and
- The peer reviewed academic literature and other sources cited in this report.

I conducted my analyses using Stata SE v. 16.1, a statistical package, and QGIS, an open source graphical information systems program.

## **V. Analysis**

### **A. The False Premise of True the Vote's Voter Challenges**

Before even turning to the data, I note that the entire effort to identify allegedly ineligible voters—flawed as it is—is also based on an entirely false set of premises.

First, there is no evidence that material numbers of ineligible voters are casting ballots in Georgia. In particular, the results of the 2020 general election have been repeatedly confirmed through multiple recounts, and Georgia Secretary of State Brad Raffensperger declared that an audit of absentee ballots in Cobb County (one of the counties where True the Vote challenged voter eligibility) failed to identify even a single fraudulent absentee ballot.<sup>2</sup>

Time after time, the academic literature has found that voter fraud claims are vastly exaggerated, with no evidence of any material levels of fraud (Minnite 2010; Eggers, Garro and Grimmer 2021a; Eggers, Garro and Grimmer 2021b). Georgia is no exception.

Second, there is no evidence that ineligible registrants remaining on voter lists leads to invalid voters casting ballots. While all voter lists inevitably contain “deadwood” of registrations no longer eligible (it is impossible to immediately

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<sup>2</sup> Georgia Secretary of State/Georgia Bureau of Investigation, *ABM Signature Audit Report*. Cast Number SEB2020-427, December 29, 2020.



update lists with information from other types of administrative data) there is no evidence that material numbers of ineligible voters cast ballots. If anything, registrants are far more likely to be *improperly removed* by “challenge” practices in which the eligibility of registrants is questioned than to vote while ineligible (Merivaki 2020; Brater 2018). And, as I discuss below, list maintenance processes are far more likely to affect minority voters, who are twice as likely to be improperly removed (Huber et al. 2021).

Third, the fundamental premise of True the Vote’s challenge effort is that a voter who appears to have filed a change of address is ineligible to vote. This premise is utterly false. As I explain below, the fact that someone has filed a change of address request does not, by definition, mean that they are no longer eligible to vote at the address where they are registered.

True the Vote’s effort to challenge the eligibility of voters was fundamentally flawed, based on a faulty set of assumptions, conducted with inaccurate data, sloppily executed, and rife with errors.

## **B. The Data**

True the Vote’s challenge file consists of 250,783 records, each of which purports to represent a voter who has allegedly moved to a different out-of-county address and whose eligibility to vote in Georgia was challenged by True the Vote, through one of its affiliates. Each record consists of a voter’s first name, last name,

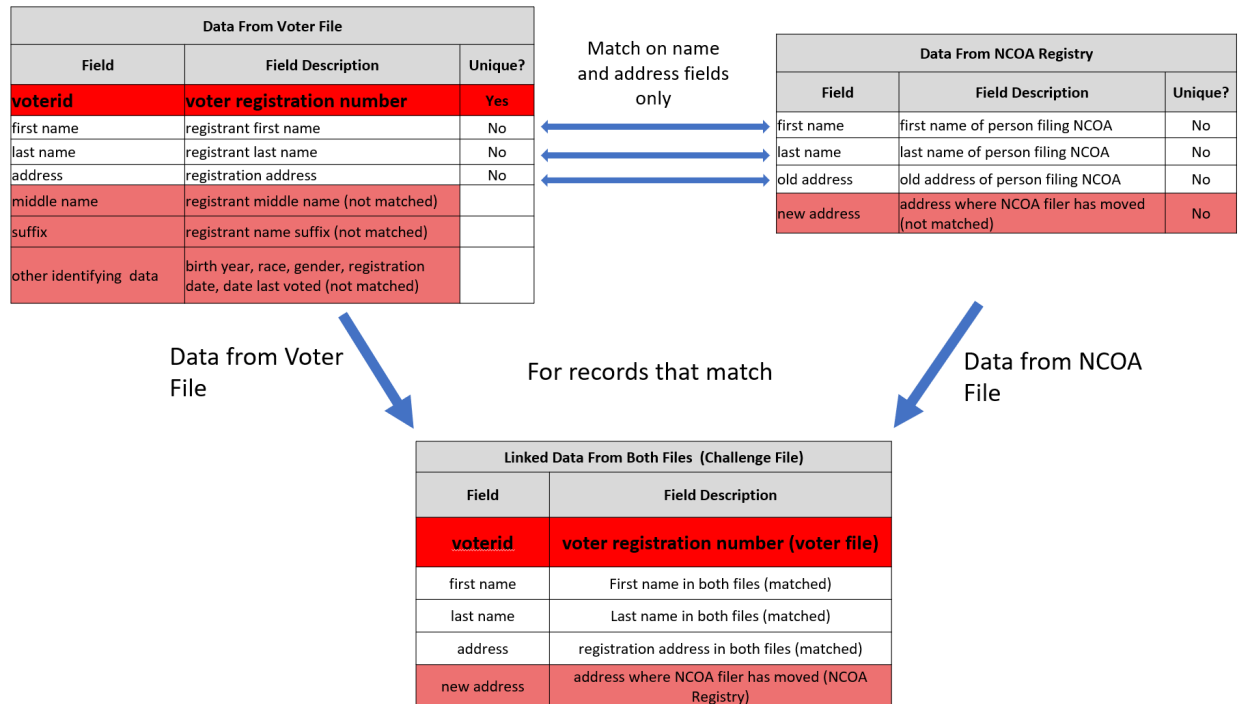
and registration address (with 2 fields for street address, and separate fields for city, county, state and ZIP code), and the same fields for an address where a voter has allegedly moved. The challenge file contains records from the 65 counties in which True the Vote (through its affiliates) submitted voter challenges.

My understanding is that True the Vote hired a firm that attempted to match the Georgia voter file with the NCOA Registry in order to compile the challenge file. As a result, True the Vote included in the challenge file registrants whose name and address, they claim, matched a name and address in the NCOA Registry for a voter who has moved out of the state or out of the county where they are currently registered.

As I explain below, matching—or more properly, “record linkage”—is the process of identifying the same individual in different administrative files, “linking” the records so that the information in each file can be connected to the same individual. This can be straightforward in cases where there is a unique identifier for the same individual in *both files*: i.e., a Social Security number, for example, or a unique driver’s license number in each file. In such an instance, we can be virtually certain that the information in both files is attached to the same individual (barring an entry or administrative error).

Here, True the Vote is claiming that if an individual in the voter file merely has the same name and address as someone who has filed an NCOA, then the records

in each file must be referring to the same person. This process is represented graphically in Figure 1:



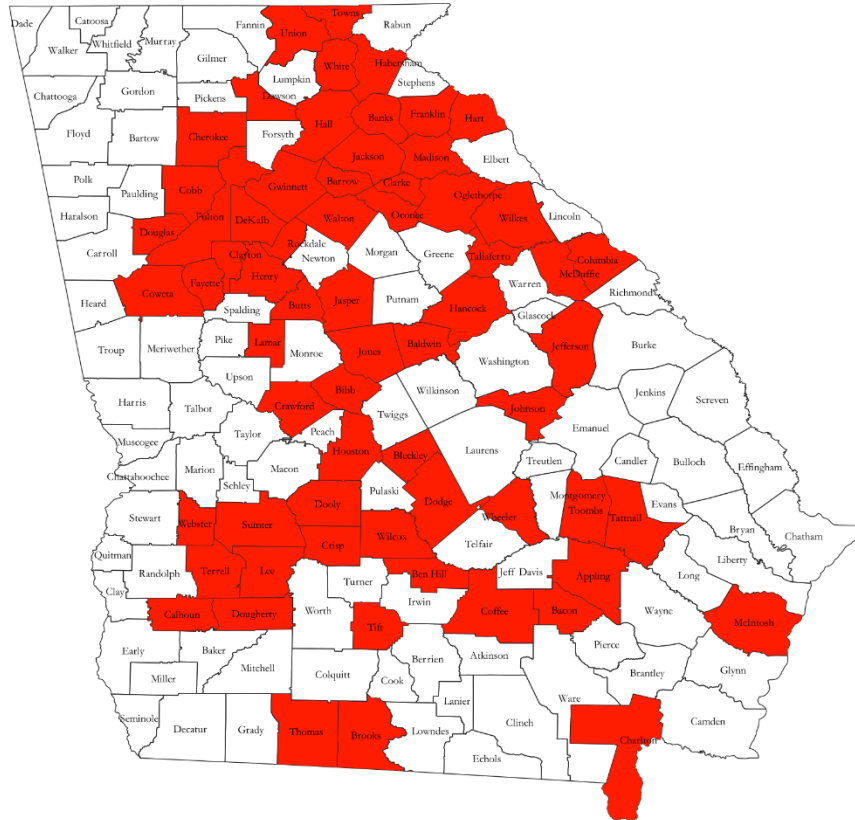
**Figure 1 – The Record Linkage Process**

The unshaded fields are the name and address fields on which the “matching” was purportedly conducted. It is crucial to note that these are not unique identifiers, and as a result we cannot be certain that the matches that occurred are in fact the same person. This is because the only unique identifier—i.e., the only way to uniquely identify every individual—is the voter identification number, which is found *only* in the Georgia voter file (shaded dark red). This number does not appear in the NCOA registry, and in fact, there is no unique identifier in the NCOA registry

at all. It is also crucial to note that additional key identifying information in the voter file, such as a registrant's middle name, name suffix, birth year, race, and gender are not used to match, and the NCOA filer's *new* address is not used for matching (all fields not used for matching are shaded light red).

To emphasize: True the Vote is purportedly matching first name, last name, and address combinations alone—none of which are unique identifiers. As a result, True the Vote is assuming that these matches are always the same person. As I show below, this is plainly wrong.

Further, the counties where True the Vote submitted challenges are conspicuously unrepresentative of the state as a whole. Figure 2 below shows the counties chosen for NCOA matching (highlighted in red). True the Vote submitted challenges in most of the counties in the Atlanta area (Forsyth County is the exception).



### Figure 2 – Georgia Counties Subjected to NCOA Match

True the Vote submitted challenges in 65 of Georgia’s 159 counties overall (38%). The selected counties are concentrated in the northern portion of the state and in the Atlanta region. Of the eleven counties that immediately surround and include Atlanta, True the Vote challenged voters’ eligibility in 10 of those counties (91%). True the Vote also submitted challenges in 17 of the 29 counties (59%) in the Atlanta Metropolitan Statistical Area.<sup>3</sup> I analyze these patterns further in Section IX, below.

<sup>3</sup> Twenty-nine County Metropolitan Statistical Area: Atlanta-Sandy Springs-Roswell, GA, Ga. Dep't of Cmty. Health,  
<https://dch.georgia.gov/sites/dch.georgia.gov/files/Atlanta%20Service%20Area%20Map.pdf>.

## **C. Methods**

To analyze the reliability of the challenge file, I linked the records in the file to the December 14 2020 Georgia voter file, using the voter identification number in both files (a unique identifier for every individual that is present in both the challenge file and the voter file).

### **1. True the Vote's Unreliable NCOA Matching**

Section VI described the process True the Vote appears to have used to identify registered voters who have filed an NCOA. As I note, record linkage is difficult (and often inaccurate) when no unique identifiers exist in both files. This is a well-known problem with voter file matching across states, or matching voter file data to other administrative files such as the NCOA Registry (Huber et al. 2021; NASS 2017; Wisconsin Elections Commission 2021; Goel 2020; Merivaki 2020).

True the Vote's description of its matching process appears in two places, both of which give different and inconsistent information about their methods. In one instance, the process is described as follows:

- OpSec evaluated the challenge requirements of the Georgia code, in addition to any specific requirements related to runoff elections.
- OpSec's representatives met with the Georgia Secretary of State's representatives to confirm the accuracy of its methodology.
- OpSec loaded the Georgia voter registration file into its system, which is publicly available
- OpSec compared, using algorithms, queries, and various regression techniques, the addresses in the registration file to government and commercially available information in order to identify people who have

either moved out of the county in which they are registered or who live outside the State of Georgia.

- OpSec reviewed the results of this comparison and ran algorithms to exclude potential students, military, or non-permanent movers. For instance, OpSec eliminated addresses associated with college dorms or military bases.
- OpSec removed from the list any names that did not meet the standards of the Georgia code.
- OpSec reviewed the final results and prepared the final spreadsheet for distribution to challengers, counties, and the Georgia Secretary of State.<sup>4</sup>

A second document, a December 28, 2020 email from Catherine Engelbrecht to multiple recipients, describes the process quite differently: “[A]fter we analyzed the data through the NCOA, we did the following:

1. We rescreened the findings through an enhanced NCOA search to remove all identifiable military addresses.
2. Using the above subset, we then screened through a database called Smarty Streets to complete incomplete address formats, then rescreened again through NCOA.
3. We ran subset (*sic*) from #2 through Social Security Death Index to remove any deceased voters on the list.
4. We ran subset (*sic*) from #3 through scripts written to remove any records that appeared to be duplicates.”<sup>5</sup>

These descriptions do not provide an adequate explanation of any actual methodology used to conduct the initial match. In the first document, the claim that OpSec used “algorithms, queries, and various regression techniques” to identify

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<sup>4</sup> OpSec Group LLC Subpoena - Exhibit A, Amended Responses, 12-13.

<sup>5</sup> Email, December 28, 2020, Def TTV 1453.

people in the voter file who have moved is woefully insufficient—one would need to know, at an absolute minimum, *what* algorithms, queries and regression techniques were used, none of which is actually provided. Nor is it clear from the explanation what “government and commercially available information” was used to conduct the analysis. The same inadequacies are found where OpSec claims it used “algorithms to exclude potential students, military, or non-permanent movers,” which, in addition to being nonsensically ambiguous, is wrong because, as I’ve found in my review, there remained 397 targeted registrants in the challenge file who list an address literally *on* a military base. Further, OpSec provided no information about how it identified addresses of college or university dorms, or how it “reviewed the final results.” As I show throughout this report, the tens of thousands of obvious errors in the challenge file reveal the complete inadequacy of whatever process or method was actually used, opaque as it is to any outside review.

In True the Vote’s second alleged description of its processes, phrases like “analyzed the data through the NCOA,” “enhanced NCOA search,” “rescreened,” and “ran” are similarly undefined and ambiguous. Moreover, it is not clear how “deceased voters” were identified, as there is no Social Security data (such as Social Security numbers, or even full dates of birth) in the Georgia voter file. We further know that steps 2 and 4 were demonstrably insufficient, as numerous duplicate



records and military addresses remain in the challenge file (see Section IX(A), below).<sup>6</sup>

In addition, neither of these descriptions provides information necessary to properly review legitimate record linkage, such as: the dates the underlying files were generated, the date the match was conducted, how the individuals in the NCOA match file were identified, whether the files were linked through exact matching (requiring a character-for-character match between fields) or some form of probabilistic matching,<sup>7</sup> whether the matches were generated through a formal NCOA match process (called NCOA<sup>LINK</sup>)<sup>8</sup> or through some other method,<sup>9</sup> or what fields were used to determine if a match existed. We do not know if True the Vote included records that did not match exactly, but *partially* matched, and we do not have the matching codes returned in an NCOA match, indicating why a record did

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<sup>6</sup> Note, by contrast, the five-page 3,900-word description of record linkage methods, data preparation, and validity checking in Ansolabehere and Hersh (2017, 2-6).

<sup>7</sup> Probabilistic matching (often called “fuzzy matching”) allows matches to include variants of field values, or matches on a percentage of characters in a field, with the results expressed as a probability that the match is correct, a false positive, or false negative (Ansolabehere and Hersh 2017, 2).

<sup>8</sup> See U.S. Postal Service, NCOALINK, <https://postalpro.usps.com/mailling-and-shipping-services/NCOALink>.

<sup>9</sup> The U.S. Postal Service Guide for NCOA Link allows users to specify matching rules, and allows for “normalizing” last names to match variants. See U.S. Postal Service, NCOA<sup>LINK</sup> *User’s Technical Reference*, Version 10, July 5, 2018, [https://postalpro.usps.com/mnt/glusterfs/2018-07/User\\_Tech\\_Info.pdf](https://postalpro.usps.com/mnt/glusterfs/2018-07/User_Tech_Info.pdf).

not match, or whether it was a partial match.<sup>10</sup> We do not know how many records were removed from the NCOA match file prior to the creation of the challenge file. Without a detailed description and accounting of the methodology used, the challenge file cannot be regarded as reliable.<sup>11</sup>

Critically, there is incomplete information about *who* conducted the match: access to the NCOA registry is available only to licensed entities who market their services to businesses or other organizations that submit files for matching or use it for their own analyses. Several types of licenses are available, and although I do not have access to the current number of entities with access to the registry, in 2014 the USPS Inspector General found 515 companies with NCOA license agreements (USPS 2014, 9). It is not clear if OpSec itself has the requisite licensing, or whether it engaged another entity to perform the match.

The likelihood of errors is compounded when different individuals have similar names or the same name and live at the same address—including, for example, individuals with name suffixes such as John Smith Sr., Jr., III, etc. As I

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<sup>10</sup> The formal NCOA return codes include numerous reasons for nonmatches, many of which show *partial* matches on some fields but not others, different middle names, initials in one data set and full names in the other, different genders, different ZIP codes or a five-digit ZIP code in one file and a ZIP+4 code in the other, or multiple matches. See U.S. Postal Service, *NCOA<sup>LINK</sup> User's Technical Reference*, Version 10, July 5, 2018, pp. 12-19.

<sup>11</sup> If OpSec relied on a commercial data set such as Lexis/Nexis or a national data analytics firm to identify movers, much of the address information those sources rely on still comes from the NCOA Registry, which would result in the same errors and inadequacies I have identified.

show below, there are tens of thousands of records in the voter file that contain duplicate name and address fields, and it is clear that True the Vote has matched one individual who has submitted an NCOA to multiple individuals with the same name in the voter file. Importantly, the name fields that True the Vote has apparently used to conduct the match do not include either middle names or name suffixes (these are not present in the challenge files).

The resulting challenge file is therefore wholly unreliable and, as demonstrated below, has resulted in numerous errors.

## **2. Data Errors**

Even without a full description of the method, it is apparent that the challenge file contains tens of thousands of errors. These errors include missing data, missing values in matching fields, anomalous values in matching fields, voters who clearly have not moved, voters who have not moved out of the county in which they are registered, and voters who have re-registered at a new address.

### **a) Missing Data**

The voter file includes identifying information for registrants, including first name, last name, middle initial or maiden name, suffix (Jr., Sr., III, etc.), and birth year. The challenge file includes only first name and last name. None of the records include a middle name or initial or maiden name, suffix, or birth year. As far as I

have been able to determine, the NCOA-voter file match used only first name, last name, and address to link the two files (the NCOA file and the Georgia voter file).

This has led to obvious and myriad errors, because name and address combinations are not unique in the voter file (or, almost certainly, in the NCOA Registry). There are 85,219 records in the voter file with at least one duplicate on the first name, last name, and address triplet (fields which include street address, apartment number, city and ZIP code). Often these records show multiple generations living at the same address, with identical first and last names (e.g., John Smith, John Smith Jr., and John Smith III).

Matching NCOA data using first name, last name, and address (where there are duplicate records) to the voter file using first name, last name, and address (where there are duplicate records) is virtually guaranteed to link the *wrong individuals* in the two files. To give a concrete example, the challenge file lists two registrants named Eric Jones at the same address in Gwinnett County, neither of whom show an NCOA street address for the location they have moved to. But there are *three* Eric Joneses in the voter file at the same address as the two in the challenge file, with three different birth years and three different middle names, one of whom is a “Jr.” It is impossible to tell which individual is the correct match because the voter registration number, birth year, middle name, and suffix fields are not included in the NCOA file.

And, indeed, incorrect links have occurred. The challenge file includes 1,375 records duplicated on the first name, last name, and address triplet. The reason these duplicated records exist in the challenge file is that *all* of them link to records in the voter file that are duplicated on the same fields, even when the records in the voter file refer to *different* individuals (based on unique voter registration numbers). At least one of the duplicated records in the challenge file is almost certainly incorrectly linked to the voter file: what has happened is that a single name and address in the NCOA file has linked to multiple individuals in the voter file who have the same name and address. It is not possible to correct this error in the challenge file, as I am unable to determine *which* voter in the voter file (if any) is the correct match to the NCOA record.

In total, there are 1,375 duplicated records in the challenge file, and a disproportionate number of the duplicate records identify racial minorities. While 27.3% of individuals overall in the challenge file are African American, 40.3% of the individuals in duplicated records are African American.

#### **b) Missing Values in Key Fields**

The challenge file purports to identify Georgia registrants who have moved to a different address, listing the address in the voter file where a voter is currently registered and the address from the NCOA Registry where the registrant is claimed to have moved. However, 15,360 records in the challenge file *do not show a street*

*address* in the “moved to” address fields. Another 27 records show a “moved to” street address of “general delivery.” True the Vote is claiming that these voters have moved, but they do not know *where* the voters are alleged to have moved to.

This raises two serious problems. First, it strongly suggests an error in the matching process or NCOA data, and a lack of quality control in compiling records of allegedly ineligible voters. It is not clear why someone would file an NCOA without actually entering a new address.

A second, more serious, issue is that a clerk relying on this data to notify a voter that their eligibility has been challenged has no way to contact the voter. If a voter has in fact moved, sending a notification to the old address in the registration files cannot be forwarded to the new address (as there is none). And sending a notification to the new address is similarly impossible, as no address is listed. A challenged registrant (who is identified by registration number) may have no way of knowing that their eligibility has been challenged.

### **c) Anomalous Values and Obvious Errors**

Many records include obviously incorrect field values. For example, all of the 9,270 records in the Henry County challenge file have erroneous ZIP code data. Rather than what should be a five- or nine-digit ZIP code, the field shows the municipality where a voter is registered.

As another example, the “movedtocity” field in each challenge file shows different abbreviations and spelling variants for city names, including: “Charlottesville” and “Charlottesvle” VA; “Fort Leavenwrth” and “Fort Leavenworth” KS; “Twentynin Palms” and “Twentynine Palms,” CA; “Dauphin Isl” and “Dauphin Island,” AL; “Canal Wnchstr” and “Canal Winchester,” OH; “”Salt Lake Cty” and “Salt Lake City,” UT; “Jeffersonvll” and “Jeffersonville,” IN; “Washingtonvle” and “Washingtonville,” NY; “San Juan Capo” and “San Juan Capistrano,” CA; and more—I have not compiled a complete listing of all of these inconsistencies and differences. The origin of these inconsistencies is not clear, but the errors clearly exist in the NCOA data as none of the errors exist in the registration data in the voter file.

Furthermore, in 263 cases, the name of the registrant in the challenge file does not match the name in the voter file for the registrant with that registration number.

In five cases, the registration address and “movedstreet1” address in the challenge file is identical, indicating that the voter has not in fact moved. This raises further questions about the validity of the NCOA matching process used, as well as the lack of quality control in reviewing the results (to the extent they were reviewed at all).

In 145 cases, the registration address and address the registrant is alleged to have moved to are in the same county.

In 6,377 cases, individuals have re-registered at the address the NCOA match shows that they have moved to. True the Vote is therefore inexplicably challenging the eligibility of voters who are registered at their new address.

In 336 cases, the individual whose eligibility True the Vote is challenging is not registered to vote in Georgia.

#### **d) Lack of Adequate Data Preparation**

In the absence of a unique identifier in both files that can be linked, record linkage is a probabilistic process. At the very least, the fields used to link files should be regularized so that they have a common format. But even that did not occur here.

For example, an immediate problem is that the address fields in the challenge file do not match the address fields in the voter file. The challenge file lists “registrationstreet1” and “registrationstreet2” for the street address of a registrant. “registrationstreet2” appears to be an apartment or unit number. The voter file uses entirely different fields, splitting the registrant’s street address into house number, street name, street suffix, and apartment or unit number fields.

I located 41,691 records in the challenge file that have a value in the “registrationstreet2” field (which is, again, presumably an apartment or unit number), but several of those values are not valid: five are recorded as missing rather than blank, one is recorded as either a spreadsheet cell reference or a typographical error (“=g16”), one is recorded as an en dash (“-”), and another is recorded as “Null.”



### **e) Challenge File Addresses Near or on Military Installations**

One indicator of the fundamental unreliability of True the Vote's challenge file is that it includes 397 registrants who are listed as actually *living on a military installation* (based on the "movedcity" field). The challenge list includes 41 registrants with an address on Fort Knox, KY; 35 on Fort Bragg, NC; 29 on Fort Campbell, KY; 23 on Joint Base Lewis McChord, WA; 16 on Fort Stewart, GA; 15 on Fort Meade, MD; 14 on Eglin Air Force Base, FL; 13 on Fort Irwin, CA; 12 on Camp Lejeune, NC; and nine at the United States Air Force Academy, CO. True the Vote claims to have removed military addresses from the challenge file, but it clearly did not. In total, the challenge list includes registrants with an address specifically *on* 59 different military installations.

I also identified registrants who appear in the challenge file as moving to a city on or in the same standard metropolitan area of a military installation. Appendix A lists these cities, installation names, and the number of challenged residents in each, and shows 22,956 registrants who, according to the challenge file, submitted an NCOA with an address on or near one of 189 military installations.

### **f) Challenge File Addresses in Municipalities with Universities**

A second common reason for moving to another address is attending a college or university. In 2018 approximately 60,000 graduating high school seniors in

Georgia enrolled at a college or university within 12 months.<sup>12</sup> This means that at any given time hundreds of thousands of Georgia students are pursuing a post-secondary degree, many of whom moved away from home temporarily to attend college. A student living away from home is a classic example of a legitimate absentee voter.

I identified cities with four-year colleges and universities, including public universities in Georgia, Mississippi, Florida, Alabama and Texas; all ACC, SEC, Big 12, and Big 10 conference schools; Ivy League schools; and schools identified by the Governor's Office of Student Achievement as being a top destination of Georgia high school graduates.<sup>13</sup>

The challenge file shows 35,056 registrants moving to a city where one of these academic institutions is located.<sup>14</sup> True the Vote claims that removing addresses in college dorms solves the problem of identifying potential students, but this is clearly incorrect.<sup>15</sup> According to the American Association of Colleges and

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<sup>12</sup> State of Georgia, Governor's Office of Student Achievement, Graduate Outcomes – Year After High School Graduation, 2018, <https://hsgrad.gosa.ga.gov/noauth/extensions/HighSchoolGraduateOutcome2020/HighSchoolGraduateOutcome2020.html>.

<sup>13</sup> The office tracks the top five destinations for every high school in each county; I tracked the 100 schools with the most top five rankings in 2017-2018 combined, excluding for-profit, online, and community and technical colleges.

<sup>14</sup> I excluded cities with populations of more than 1 million (New York, Los Angeles, Chicago, Houston, Phoenix, Philadelphia, San Antonio, San Diego, Dallas, and San Jose).

<sup>15</sup> This also adds yet another unexplained aspect of True the Vote's method, which is how it identified the addresses of on-campus housing units nationwide.

Universities, only 13% of *first year students* at a college or university live on campus.<sup>16</sup> Appendix B shows these cities, the corresponding institutions, and the number of challenged registrants with addresses in these cities.

In total, I identified 57,534 registrants in the challenge file who appear to have moved to or near a military installation, or to a municipality with a college or university.<sup>17</sup> This constitutes 22.9% of the registrants in the challenge file.

### **g) Inadequate Data Practices**

The matching process ostensibly utilized by True the Vote does not adhere to standard practice in political science. An accurate process would, at minimum, ensure that data fields were conforming, that missing and anomalous values were identified and corrected, and that implausible matches (such as duplicates and name changes) were either removed or investigated further to identify possible errors (Ansolahehere and Hersh 2017; Enamorado, Fifield, and Imai, 2019). As far as I can tell, none of those practices occurred here. The validation process described in Def TTV 1453 is wholly inadequate.

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<sup>16</sup> See *Misconceptions about Today's College Students*, Ass'n Am. Colleges & Univs. (Nov. 2018), [https://www.aacu.org/aacu-news/newsletter/2018/november/facts-figures#:~:text=More%20than%20half%20\(57%20percent,actually%20does%2C%20the%20report%20said.](https://www.aacu.org/aacu-news/newsletter/2018/november/facts-figures#:~:text=More%20than%20half%20(57%20percent,actually%20does%2C%20the%20report%20said.)

<sup>17</sup> I placed cities with both a military installation and a college or university in Appendix A, to avoid double-counting.

### 3. Eligibility Cannot Be Determined Based on NCOA Matching

Even if done perfectly, NCOA data cannot be used by itself to determine voter eligibility. First, as discussed above, the NCOA data are not error-free, and the companies that conduct NCOA matching note that false positives occur “on a regular basis.”<sup>18</sup>

NCOA matching may be one element in the process of a state’s voter list maintenance (i.e., the practice of regularly updating voter registration files to identify registrants who are no longer eligible to vote). But states do not use an NCOA match alone as a reason for removing a voter from the list of registered voters. The reason is quite simple: NCOA registries are known to produce false positives (errors occurring when individuals who have not moved are on the registry), and even voters who have moved can remain eligible to vote in Georgia.

The academic literature has identified a clear pattern that errors in voter maintenance processes have a disproportionate effect on minority voters, who are more likely to be incorrectly removed from voter lists or to be placed in inactive status because of administrative errors. These errors include being falsely identified as having moved because of an incorrect NCOA match. Minority registrants are

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<sup>18</sup> See *Understanding NCOA Processing*, NCOA Source, [https://www.ncoasource.com/ncoa\\_processing.htm](https://www.ncoasource.com/ncoa_processing.htm).

twice as likely as white registrants to vote at their registration address after they have been incorrectly flagged as moving (Huber et al. 2021, 3).

#### **4. Distribution of Counties Selected**

True the Vote submitted challenges in 65 counties—less than 39% of the 159 counties in Georgia. Why were these counties selected? I have seen no explanation from either True the Vote or OpSec. In methodological terms, the mechanism of choice is unobserved. All we know is that a county was selected, or not selected, for NCOA matching.

I can, however, draw some inferences about the collection of counties True the Vote selected based on patterns in the observed data. For example, it is clear from Figure 2 that counties in the Atlanta region were more likely to be selected than counties elsewhere in the state.

The choice of counties, furthermore, is not representative because counties with larger shares of African American and other minority voters were more likely to be selected. True the Vote challenged voters in:

- The three counties with the highest percentage of African American registrants;
- Ten of the 20 counties with the highest percentage of African American registrants; and
- Only four of the 20 counties with the smallest percentage of African American registrants.

This simple comparison indicates True the Vote was between 2 ½ and 3 times more likely to challenge voters in counties with high concentrations of African American voters than counties with low concentrations of African American voters.

The consequences are apparent: African Americans are a disproportionately large share of alleged “in-state” movers, i.e., registrants who appear in the challenge file as moving to a new address in Georgia. Overall, the 2021 voter registration file shows that 29.9% of registrants are African American. But among alleged in-state movers in True the Vote’s challenge file, 38.4% are African American.

A simple multivariate analysis confirms the relationship. Probit is an appropriate regression technique for binary dependent variables, where the values are either 0 or 1 (Greene 2012, 688). In this case, a county was either selected for challenge (1) or not (0). I use the natural log of the total number of registrants [ $\ln(\text{registrants})$ ] in a county as a control variable. The results are:

**Table 2 – Probit Estimates**

Independent Variable: County selected for Challenge	
Independent variable	Coefficient
$\ln(\text{registrants})$ in county	.23 (.08)
% African American registrants in county	.92 (.62)
Observations: 159 Likelihood ratio $\chi^2$ : 8,95 Standard errors in parentheses	

This analysis shows that the higher a county's percentage of African American registrants, the higher the probability that True the Vote selected that county for voter challenges. While the coefficient for percentage African American does not meet the traditional threshold for statistical significance, the observed racial pattern is unlikely to be random. Statistical significance, formally, is a measure of the probability that the coefficient is non-zero. This probability is estimated using a quantity called the "t-ratio," calculated as the coefficient divided by the standard error. The t-ratio for the coefficient for the percentage of African Americans is 1.48. This indicates an 86% probability that counties with higher percentages of African American voters were more likely to be selected for challenges, and the coefficient estimate remains the most likely value.<sup>19</sup>

Another way of showing the consequences of True the Vote's county selection is to examine the marginal effect of changes in the African American share of registered voters on the estimated probability that a county was selected. For a county with the mean number of registered voters (48,864), the estimated probability

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<sup>19</sup> Statistical significance is often used improperly as a binary threshold for concluding that an effect is real; or, more properly, that we cannot reject the null hypothesis that a coefficient is zero (Amrhein, Greenland, and McShane 2019; Wasserstein and Lazar 2016; Wasserstein, Schirm, and Lazar, 2019).

of being selected increases from 39.3% to 63.4% as the African American share of registered voters increases from 10% to 80%.

To be clear, I am not making a causal claim that True the Vote selected counties for challenges *because* they had a higher percentage of African Americans. I *am* making an empirical claim that the *effect* of True the Vote's selection process is that counties with higher percentages of African American registrations were more likely to be selected for challenges.

We also know that not every county that True the Vote matched with the NCOA registry resulted in a challenge. The TrueAppend document (OpSec 0009-0029) provides some context. This document reports that a file named "moved\_out\_of\_state\_or\_county.csv" has been processed and gives a variety of quantities related to different elements of the file. The report goes on to provide multiple measures of the "moved\_out\_of\_state\_or\_county.csv" file output, few of which have any conceivable connection to any process of identifying ineligible registrants. Among the categories provided: the percentage of registrants who own a business, median income, household income distribution, gender, home ownership, home value, charitable giving, marital status, net worth, occupation, political party, religion, and presence of children in the household.



### **D. The Burdens of Registration Challenges on Eligible Voters**

Challenges to voter eligibility impose significant costs on registrants. Under O.C.G.A. § 21-2-230, challenged voters must “answer the grounds of the challenge” if they vote in person, and an absentee voter’s ballot is treated as challenged. The challenged voter is subject to a hearing or other examination, § 21-2-230(g). This could require the voter to present additional documentation and expend additional time to prove their eligibility, significantly increasing the costs of voting.

To evaluate the potential effects of these challenges, I turn first to the models and methods used to study voter turnout.

#### **1. The Cost of Voting**

For at least 60 years, political scientists and economists have accepted the model of voter turnout as a function of the costs and benefits of voting. As an intellectual framework, it is canonical.

The basic model, originally proposed by Riker and Ordeshook (1968, 28), postulates that the utility of voting is expressed in the following form:

$$\text{Utility of voting} = BP - C + D$$

B is the benefit a voter receives if her candidate wins; P is the probability of a voter casting the decisive vote; C is a measure of the cost of voting; and D is a theoretical measure of the non-material satisfaction a voter derives from the act of casting a ballot (from such sources as participating in an important civic ritual, or compliance

with the social expectation of voting). The probability that an individual votes rises as the utility goes up.

Because the probability that a single vote will be decisive is extremely low (meaning that BP is very close to zero), theorists have paid attention to the cost side of the voting calculus (as measured by C). This conceptual relationship prompted decades of scholarship confirming the broad outlines of the basic theory (Sanders 1980; Rosenstone and Wolfinger 1982; Aldrich 1993; Darmofal 2010; Leighley and Nagler 2014; Blais et al., 2019). As a rule, increasing the direct or indirect costs associated with voting—such as through higher information costs, inconvenient polling place locations or times, long lines, complex administrative processes, or confusing eligibility requirements—will reduce turnout, both in the aggregate and in the probability that a given individual votes. Similarly, lowering the costs of voting—through practices such as convenience voting, election day registration, and no excuse absentee voting, for instance—will, *ceteris paribus*, increase turnout.<sup>20</sup>

A clear demonstration of the validity of “cost” considerations is the connection between socioeconomic status and voter turnout, a relationship uncontested in the academic literature. Education and income are the most strongly linked to higher turnout (Leighley and Nagler 2014, 27-29; Ojeda 2018; Burden et

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<sup>20</sup> Turnout is a multidimensional phenomenon, and electoral laws have both direct and indirect effects that are not always immediately apparent and can be unexpected (Burden et al. 2014).

al. 2014). “The relationship between education and voter turnout,” note Sondheimer and Green (2010, 174), “ranks among the most extensively documented correlations in American survey research.” Turnout is also associated with health (Pacheco and Fletcher 2015; Blakely, Kennedy and Kawachi 2001), unemployment, poverty and income loss (Rosenstone 1982; Sha and Wichowsky 2018). Higher income and education levels are also associated with more accurate information about complex administrative requirements such as what types of photo identification qualify as voter ID (DeCrescenzo and Mayer 2019).

Voters better positioned to overcome the costs of compliance with administrative and regulatory requirements for voting have higher turnout. Voters less able to overcome those costs are less likely to vote. Leighley and Nagler summarize this effect: the ability to overcome costs occurs “by enhancing individuals’ cognitive skills (and therefore reducing information costs), by increasing the gratification that individuals receive from politics (thus increasing benefits), and by providing (bureaucratic) experience that is useful in dealing with the costs of voting such as voter registration” (2014, 58-59). Similarly, income affects turnout via analogous mechanisms: people living in poverty have less time to expend on nonessential day-to-day activities, while wealthy people are more likely to live in a context where political engagement is a norm and perceive that they have higher stakes in election outcomes (2014, 58- 59).

## 2. The Effects of Voter Challenges

The Cost of Voting model provides a framework for evaluating the effects of voter challenges. A voter whose eligibility challenge has been accepted by county election officials is now in a position of having to affirmatively re-prove their eligibility, *even if they have already voted*.

This is substantially more onerous than the regular process of voter list maintenance, in which voters who are matched to the NCOA file by state election authorities and do not respond to a mailing asking them to confirm their registration status are moved to inactive status; they are automatically restored to active status the next time they vote, and are removed from the voter rolls only after failing to vote in two consecutive federal general elections. Moreover, voters whose eligibility is challenged may perceive a legal risk if they vote, which again dramatically increases the cost of voting and discourages turnout even if the individual is eligible (Minnite 2010).

Further, the standards used to assess the credibility of voter challenges, and the likelihood that a challenge will be accepted, may vary from one county to another, and the standards may be applied differently to challenged voters based on their race. Such inconsistent implementation practices are well established in the academic literature on election administration (White, Nathan and Faller 2015; Cobb, Greiner and Quinn 2010; Stewart 2013).

The political science literature has conclusively established that these types of administrative costs and burdens reduce the likelihood that a person votes (Sanders 1980; Rosenstone and Wolfinger 1982; Aldrich 1993; Darmofal 2010; Burden et al. 2014; Moynihan and Herd 2010; Leighley and Nagler 2014; Blais et al., 2019; Cantoni 2020).

## **VI. Conclusion**

The following is a summary of the errors in True the Vote's file of 250,783 challenged registrants:

- No records in the challenge file show registrant middle names or name suffixes;
- 1,325 records are duplicates, and almost certainly link to the wrong registrant in the voter file;
- 15,360 records do not list an address to where the registrant has moved;
- 9,270 records list a city name in the ZIP code field for a registrant's address;
- 263 records have a registrant name that does not match the name in the voter file;<sup>21</sup>
- 6,377 records list a registrant who has already re-registered at their new address;
- 145 records list a registrant who has not moved to a different county;
- 397 records list a registrant who has moved to a new address *on* a military installation;

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<sup>21</sup> Based on the December 14, 2020 voter file.

- 22,956 records list a registrant who has moved to a city near a military installation;
- 34,578 records list a registrant who has moved to a city with a college or university;
- 336 records list an individual who is not registered to vote in Georgia.

These errors are precisely the sort that is expected when record linkage in large administrative files is conducted with non-unique identifiers, and by a source unfamiliar with the problems inherent in record linkage. The result is a mistake-prone list that is rife with tens of thousands of obvious errors, and which would be immediately rejected as unreliable among election administration scholars.

Moreover, True the Vote's challenge file unquestionably has a disproportionate racial impact, with higher probabilities of challenges occurring in counties with large percentages of African American registrants, and a disproportionately high percentage of African Americans challenged who have purportedly moved within Georgia.

And even if True the Vote could have executed this match with 100% reliability, the results still would not provide reliable information about whether a voter is ineligible. Registrants can move to another address, even outside of Georgia, without losing their eligibility, and the fact that a move *appears* to have occurred is not sufficient cause to question a voter's eligibility.

In sum, True the Vote submitted mistake-prone lists of challenged voters, based on flawed premises, faulty data, and shoddy procedures, which disproportionately impacts African American voters who are alleged to have moved in-state to another county. These erroneous mass challenges impose significant costs on eligible voters who may be forced to affirmatively prove their eligibility, and who may not even know that their eligibility has been challenged until they try to vote or after they have voted.

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<b>Appendix A - Challenged Registrants Listed as Moving to City Near or on Military Installation</b>		
<b>Cities Listed as New Addresses in Challenge File (Directly from Challenge File)</b>	<b>Number of Challenged Registrants in This Location</b>	<b>Military Installation Name</b>
Aberdeen Proving Ground, MD	7	Aberdeen Proving Ground
Aberdeen, MD	18	Aberdeen Proving Ground
Alamogordo, NM	19	Holloman Air Force Base
Alexandria, VA	386	Pentagon
Altus, OK	7	Altus Air Force Base
Anchorage, AK	63	JB Elmendorf Richardson
Andrews Air Force Base, MD	7	Andrews Air Force Base
Annandale, VA	11	Pentagon
Annapolis, MD	78	Naval Academy
Anniston, AL	112	Anniston Army Depot, Fort McClellan
Arlington, VA	259	Pentagon
Augusta, GA	972	Fort Gordon, Augusta University
Aurora, CO	278	Buckley Air Force Base
Ayer, MA	2	Fort Devens
Barksdale Afb, LA	5	Barksdale Air Force Base
Beale Afb, CA	3	Beale Air Force Base
Beaufort, SC	216	MCAS Beaufort
Bedford, MA	6	Hanscom Air Force Base
Bellevue, NE	31	Offutt Air Force Base
Bethesda, MD	67	Naval Support Activity Bethesda, Walter Reed
Biloxi, MS	85	Keesler Air Force Base
Bolling Afb, DC	10	Bolling Air Force Base
Bremerton, WA	22	Bremerton Navy Base and Hospital
Burke, VA	22	Pentagon
Camp H M Smith, HI	1	Camp HM Smith
Camp Lejeune, NC	12	Camp Lejeune
Camp Pendleton, CA	10	Camp Pendleton
Carlisle, PA	28	Army War College
Chambersburg, PA	23	Letterkenny Army Depot
Charleston Afb, SC	1	Joint Base Charleston
Charleston, SC	473	Joint Base Charleston
Chesapeake, VA	204	NAS Norfolk
Cheyenne, WY	25	Warren Air Force Base
Clarksville, TN	266	Fort Campbell
Colorado Springs, CO	549	NORAD, USAF Academy

Dahlgren, VA	3	NSWC Dahlgren
Dahlonaga, GA	273	Camp Merrill, University of North Georgia
Daphne, AL	177	USCG Aviation Training Center
Dayton, OH	260	Wright-Patterson Air Force Base
Dothan, AL	191	Fort Rucker
Dover Afb, DE	2	Dover Air Force Base
Dover, DE	54	Dover Air Force Base
Dulles, VA	45	Pentagon
Dyess Afb, TX	2	Dyess Air Force Base
Edwards, CA	3	Edwards Air Force Base
Eglin Afb, FL	14	Eglin Air Force Base
Eielson Afb, AK	4	Eielson Air Force Base
El Paso, TX	217	Fort Bliss
Ellsworth Afb, SD	1	Ellsworth Air Force Base
Fairbanks, AK	17	Eielson Air Force Base
Fairchild Afb, WA	3	Fairchild Air Force Base
Fairchild Air Force Base, WA	1	Fairchild Air Force Base
Fairfax, VA	100	Pentagon
Fairfield, CA	27	Travis Air Force Base
Falls Church, VA	84	Pentagon
Fayetteville, NC	305	Fort Bragg
Fort Belvoir, VA	27	Fort Belvoir
Fort Bragg, NC	35	Fort Bragg
Fort Campbell, KY	29	Fort Campbell
Fort Drum, NY	2	Fort Drum
Fort George G Meade, MD	10	Fort Meade
Fort Hood, TX	43	Fort Hood
Fort Irwin, CA	13	Fort Irwin
Fort Knox, KY	41	Fort Knox
Fort Leavenworth, KS	11	Fort Leavenworth
Fort Leonard Wood, MO	6	Fort Leonard Wood
Fort Meade, MD	15	Fort Meade
Fort Mitchell, AL	27	Fort Benning
Fort Riley, KS	26	Fort Leavenworth
Fort Rucker, AL	6	Fort Rucker
Fort Sill, OK	9	Fort Sill
Fort Smith, AR	30	Fort Chaffee
Fort Stewart, GA	16	Fort Stewart
Fort Wainwright, AK	5	Fort Wainwright
Fort Walton Beach, FL	71	Eglin Air Force Base
Ft Leavnwrth, KS	5	Fort Leavenworth
Ft Leonard Wd, MO	5	Fort Leonard Wood

Ft Mitchell, KY	3	Fort Mitchell
Ft Wainwright, AK	6	Fort Wainwright
Goodfellow Afb, TX	1	Goodfellow Air Force Base
Goose Creek, SC	64	Joint Base Charleston
Gulfport, MS	146	Keesler Air Force Base
Hampton, VA	146	NAS Norfolk
Hanscom Afb, MA	5	Hanscom Air Force Base
Harker Heights, TX	24	Fort Hood
Hattiesburg, MS	67	Camp Shelby Joint Forces Training Center
Havelock, NC	25	MCAS Cherry Point
Henderson, NV	258	Nellis Air Force Base
Herndon, VA	70	Pentagon
Hill Afb, UT	5	Hill Air Force Base
Holloman Afb, NM	2	Holloman Air Force Base
Holloman Air Force Base, NM	1	Holloman Air Force Base
Honolulu, HI	140	Various
Huntsville, AL	447	UAB Huntsville, Redstone Arsenal
Jacksonville Beach, FL	116	NAS Jacksonville
Jacksonville, AR	23	Little Rock Air Force Base
Jacksonville, FL	1865	NAS Jacksonville
Jacksonville, NC	117	MCAS New River, Coastal Carolina University
Jbsa Ft Sam Houston, TX	4	Fort Sam Houston
Joint Base Lewis Mcchord, WA	23	JB Lewis McChord
Joint Base Mdl, NJ	3	Joint Base McGuire-Dix-Lakehurst
Killeen, TX	167	Fort Hood
Las Vegas, NV	840	Nellis Air Force Base
Lawton, OK	40	Fort Sill
Leesburg, VA	54	Pentagon
Little Rock, AR	125	Camp Robinson
Lompoc, CA	12	Vandenberg Air Force Base
Luke Afb, AZ	1	Luke Air Force Base
Madison, AL	253	Redstone Arsenal
Manassas, VA	86	Pentagon
March Air Reserve Base, CA	2	March Air Force Base
Mc Lean, VA	48	Pentagon
Mcchord Afb, WA	2	JB Lewis McChord
Mechanicsburg, PA	49	Naval Support Activity Mechanicsburg
Meridian, MS	46	NAS Meridian
Milton, FL	211	NAS Pensacola
Minot Afb, ND	4	Minot Air Force Base
Mobile, AL	331	USCG Aviation Training Center
Montgomery, AL	380	Maxwell Gunter Air Force Base, Alabama State

Navarre, FL	204	NAS Pensacola
Nellis Afb, NV	1	Nellis Air Force Base
Newport News, VA	150	NAS Norfolk
Newport, RI	11	Naval Station Newport
Norfolk, VA	206	NAS Norfolk
North Charleston, SC	142	Joint Base Charleston
North Las Vegas, NV	137	Nellis Air Force Base
Oak Harbor, WA	21	NAS Whidbey
Oceanside, CA	68	Camp Pendleton
Offutt Afb, NE	1	Offutt Air Force Base
Ogden, UT	69	Hill Air Force Base
Oklahoma City, OK	194	Tinker Air Force Base
Omaha, NE	148	Offutt Air Force Base
Panama City Beach, FL	333	Eglin Air Force Base
Panama City, FL	450	Eglin Air Force Base
Patrick Afb, FL	5	Patrick Air Force Base
Patuxent Rvr, MD	2	NAS Patuxent
Pensacola, FL	594	NAS Pensacola
Phenix City, AL	189	Fort Benning
Port Royal, SC	24	MCRD Parris Island
Portsmouth, VA	64	Portsmouth Navy Base
Prince George, VA	7	Fort Lee
Quantico, VA	7	Marine Corps Base Quantico
Radford, VA	14	Radford Army Ammunition Plant
Rapid City, SD	31	Ellsworth Air Force Base
Reston, VA	65	Pentagon
Riverview, FL	326	MacDill Air Force Base
Saint Augustine, FL	329	NAS Jacksonville
Saint Marys, GA	41	Kings Bay Naval Base
Saint Petersburg, FL	348	MacDill Air Force Base
San Angelo, TX	53	Goodfellow Air Force Base
San Antonio, TX	693	Lackland Air Force Base
San Diego, CA	470	Various
Savannah, GA	365	Hunter Army Air Field, Fort Stewart
Scott Afb, IL	3	Scott Air Force Base
Scott Air Force Base, IL	7	Scott Air Force Base
Seale, AL	14	Fort Benning
Sewanee, TN	8	Arnold Air Force Base
Shaw Afb, SC	1	Shaw Air Force Base
Sheppard Afb, TX	4	Sheppard Air Force Base
Shirley, MA	1	Fort Devens
Smiths Sta, AL	20	Fort Benning

Smiths Station, AL	17	Fort Benning
Spokane, WA	68	Fairchild Air Force Base
St Augustine, FL	373	NAS Jacksonville
St Petersburg, FL	281	MacDill Air Force Base
Sumter, SC	93	Shaw Air Force Base
Tacoma, WA	108	Joint Base McChord
Tampa, FL	1075	MacDill Air Force Base, University of South Florida
Tomah, WI	3	Fort McCoy
Travis Afb, CA	9	Travis Air Force Base
Triangle, VA	13	Marine Corps Base Quantico
Tucson, AZ	285	Davis Monthan Air Force Base
Tullahoma, TN	14	Arnold Air Force Base
Twentynin Plm, CA	10	Fort Irwin
Twentynine Palms, CA	7	Fort Irwin
Usaf Academy, CO	9	USAF Academy
Valdosta, GA	294	Moody Air Force Base
Vienna, VA	35	Pentagon
Virginia Beach, VA	378	NAS Norfolk
Wahiawa, HI	32	Wheeler Airfield
Warner Robins, GA	518	Warner Robins Air Force Base
Washington, DC	640	Pentagon
Watertown, NY	35	Fort Drum
West Point, NY	17	United States Military Academy
Whiteman Afb, MO	3	Whiteman Air Force Base
Whiteman Air Force Base, MO	1	Whiteman Air Force Base
Wichita Falls, TX	48	Sheppard Air Force Base
Yorktown, VA	28	NAS Norfolk
Yuma, AZ	37	MCAS Yuma



Appendix B - Challenged Registrants Listed as Moving to University Cities		
Cities Listed as New Addresses in Challenge File	Number of Challenged Registrants in This City	Institution Name
Aiken, SC	315	University of South Carolina - Aiken
Albany, GA	493	Albany State University
Ames, IA	16	Iowa State University
Ann Arbor, MI	97	University of Michigan
Asheville, NC	399	UNC-Asheville
Athens, GA	1044	University of Georgia
Atlanta, GA	13318	Multiple
Auburn, AL	385	Auburn University
Austin, TX	761	University of Texas - Austin
Baton Rouge, LA	247	Louisiana State University
Berea, KY	12	Berea College
Berkeley, CA	30	UC Berkeley
Birmingham, AL	987	University of Alabama Birmingham
Blacksburg, VA	34	Virginia Tech University
Bloomington, IN	68	Indiana University
Boone, NC	44	Appalachian State University
Boulder, CO	91	University of Colorado
Brevard, NC	84	Brevard College
Cambridge, MA	73	Harvard, MIT
Central, SC	26	Southern Wesleyan University
Champaign, IL	54	University of Illinois
Chapel Hill, NC	150	University of North Carolina
Charlotte, NC	1804	UNC Charlotte, Johnson& Wales
Charlottesville, VA	72	University of Virginia
Charlottesvle, VA	56	University of Virginia
Chattanooga, TN	663	University of Tennessee Chattanooga
Chestnut Hill, MA	3	Boston College
Clemson, SC	30	Clemson University
College Park, MD	13	University of Maryland
College Sta, TX	22	Texas A&M University
College Station, TX	22	Texas A&M University
Columbia, MO	51	University of Missouri
Columbia, SC	639	University of South Carolina, Benedict College
Columbus, OH	359	Ohio State University
Commerce, TX	3	Texas A&M Commerce
Coral Gables, FL	22	University of Miami
Coralville, IA	9	University of Iowa

Corvallis, OR	15	Oregon State University
Dayton, TN	24	Bryan College
Daytona Beach, FL	245	Bethune-Cookman
Durham, NC	429	Duke University
East Lansing, MI	25	Michigan State University
Evanston, IL	45	Northwestern University
Fairfield, AL	9	Miles College
Fayetteville, AR	71	University of Arkansas
Gainesville, FL	269	University of Florida
Greensboro, NC	357	North Carolina A&T
Greenville, SC	696	Furman University
Harrogate, TN	2	Lincoln Memorial University
Iowa City, IA	20	University of Iowa
Ithaca, NY	25	Cornell University
Itta Bena, MS	2	Mississippi Valley State University
Jackson, MS	130	Jackson State University
Jackson, TN	56	Lane College
Jacksonville, AL	45	Jacksonville State University
Jefferson City, MO	12	Lincoln University
Jefferson City, TN	10	Carson-Newman University
Kennesaw, GA	716	Kennesaw State University
Knoxville, TN	604	University of Tennessee
Lakeland, FL	341	Southeastern University
Lawrence, KS	37	Kansas University
Lexington, KY	218	University of Kentucky
Lincoln, NE	64	University of Nebraska
Louisville, KY	567	University of Louisville
Lubbock, TX	59	Texas Tech University
Lynchburg, VA	66	Liberty University
Madison, WI	99	University of Wisconsin-Madison
Manhattan, KS	41	Kansas State
Marianna, FL	24	Chipola College
Martin, TN	4	University of Tennessee - Martin
Maryville, TN	116	Maryville College
Middleton, WI	11	University of Wisconsin-Madison
Minneapolis, MN	376	University of Minnesota
Morgantown, WV	33	West Virginia University
Murfreesboro, TN	369	Middle Tennessee State University
Nashville, TN	952	Tennessee State, Vanderbilt
New Haven, CT	58	Yale University
Newberry, SC	17	Newberry College
Newton, MA	8	Boston College

Norman, OK	53	University of Oklahoma
Notre Dame, IN	1	University of Notre Dame
Opelika, AL	167	Auburn University
Orangeburg, SC	58	South Carolina State University
Orlando, FL	1114	University of Central Florida
Oxford, MS	66	University of Mississippi
Palo Alto, CA	24	Stanford University
Pittsburgh, PA	317	University of Pittsburgh
Princeton, NJ	26	Princeton University
Provo, UT	22	Brigham Young University
Raleigh, NC	549	North Carolina State University
Rocky Mount, NC	46	North Carolina Wesleyan University
Saint Cloud, MN	11	St. Cloud State University
South Bend, IN	69	University of Notre Dame
Starkville, MS	52	Mississippi State University
State College, PA	49	Pennsylvania State University
Statesboro, GA	141	Georgia Southern University
Stillwater, OK	24	Oklahoma State University
Syracuse, NY	90	Syracuse University
Talladega, AL	39	Talladega College
Tallahassee, FL	699	Florida State University
Tempe, AZ	95	Arizona State University
Tifton, GA	103	Abraham Baldwin Agricultural College
Troy, AL	32	Troy University
Tuscaloosa, AL	183	University of Alabama
Tuskegee, AL	15	Tuskegee University
Urbana, IL	26	University of Illinois
Waco, TX	36	Baylor University
West Lafayette, IN	41	Purdue University
Williamsburg, KY	4	University of the Cumberlands
Winston Salem, NC	309	Wake Forest University
West Lafayette, IN	41	Purdue University
Williamsburg, KY	4	University of the Cumberlands
Winston Salem, NC	309	Wake Forest University

## **Appendix C - Mayer CV**

### **Kenneth R. Mayer**

Department of Political Science  
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110 North Hall / 1050 Bascom Mall  
University of Wisconsin – Madison  
Madison, WI 53706

### **Education**

Yale University, Department of Political Science, Ph.D., 1988.  
Yale University, Department of Political Science, M.A., M.Phil., 1987.  
University of California, San Diego, Department of Political Science, B.A., 1982.

### **Positions Held**

University of Wisconsin, Madison. Department of Political Science.  
Professor, July 2000-present.  
Associate Professor, June 1996-June 2000.  
Assistant Professor, August 1989-May 1996.  
Fulbright-ANU Distinguished Chair in Political Science, Australian National University (Canberra, ACT), July-December 2006.  
Director, Data and Computation Center, College of Letters and Science, University of Wisconsin-Madison, June 1996-September 2003  
Consultant, The RAND Corporation, Washington DC, 1988-1994. Conducted study of acquisition reform, and the effects of acquisition policy on the defense industrial base. Performed computer simulations of U.S. strategic force posture and capabilities.  
Contract Specialist, Naval Air Systems Command, Washington D.C., 1985-1986. Responsible for cost and price analysis, contract negotiation, and contract administration for aerial target missile programs in the \$5 million - \$100 million range.

### **Awards**

American Political Science Association, State Politics and Policy Section. Award for best Journal Article Published in the *American Journal of Political Science* in 2014. Awarded for Burden, Canon, Mayer, and Moynihan,

“Election Laws, Mobilization, and Turnout.”

Robert H. Durr Award, from the Midwest Political Science Association, for Best Paper Applying Quantitative Methods to a Substantive Problem Presented at the 2013 Meeting. Awarded for Burden, Canon, Mayer, and Moynihan, “Election Laws and Partisan Gains.”

Leon Epstein Faculty Fellow, College of Letters and Science, 2012-2015

UW Housing Honored Instructor Award, 2012, 2014, 2017, 2018

Recipient, Jerry J. and Mary M. Cotter Award, College of Letters and Science, 2011-2012

Alliant Underkofler Excellence in Teaching Award, University of Wisconsin System, 2006

Pi Sigma Alpha Teaching Award, Fall 2006

Vilas Associate, 2003-2004, University of Wisconsin-Madison Graduate School.

2002 Neustadt Award. Awarded by the Presidency Research Group of the American Political Science Association, for the best book published on the American presidency in 2001. Awarded for *With the Stroke of a Pen: Executive Orders and Presidential Power*.

Lilly Teaching Fellow, University of Wisconsin-Madison, 1993-1994.

Interfraternity Council award for Outstanding Teaching, University of Wisconsin-Madison, 1993.

Selected as one of the 100 best professors at University of Wisconsin-Madison, Wisconsin Student Association, March 1992.

Olin Dissertation Fellow, Center for International Affairs, Harvard University, 1987-1988

### **Service as an Expert Witness**

1. *Majority Forward and Gamliel Warren Turner, Sr. v. Ben Hill County Board of Elections, et al.*, No. 1:20-CV-00266-LAG (M.D. Ga), election administration (2020).
2. *Pearson et al. v. Kemp et al.*, No. 1:20-cv-4809-TCB (N.D. Ga), election administration (2020)
3. *North Carolina Alliance for Retired Americans et al. v. North Carolina State Board of Elections* (Wake Cty., NC), absentee ballots (2020).
4. *LaRose et al. v. Simon*, No. 62-CV-20-3149 (2d Jud. Dist. Ct., Ramsey Cty., MN), absentee ballots (2020).
5. *Michigan Alliance for Retired Americans et al. v. Benson et al.* No 2020-000108-MM (Mich. Court of Claims), absentee ballots (2020).
6. *The New Georgia Project et al. v. Raffensperger et al.* No. 1:20-CV-01986-EL0052 (N.D. Ga.), absentee ballots (2020).

7. *Driscoll v. Stapleton*, No. DV 20 0408 (13<sup>th</sup> Judicial Ct. Yellowstone Cty., MT), absentee ballots (2020).
8. *The Andrew Goodman Foundation v. Bostelmann*, No. 19-cv-955 (W.D. Wisc.), voter ID (2020).
9. *Kumar v. Frisco Independent School District et al.*, No.4:19-cv-00284 (E.D. Tex.), voting rights (2019).
10. *Fair Fight Action v. Raffensperger* No. 1:18-cv-05391-SCJ (N.D. Ga.), voting rights (2019)
11. *Vaughan v. Lewisville Independent School District*, No. 4:19-cv-00109 (E.D. Texas), voting rights (2019).
12. *Dwight et al. v Raffensperger*, No: 1:18-cv-2869-RWS (N.D. Ga.), redistricting, voting rights (2018).
13. *Priorities U.S.A.et al. v. Missouri et al.*, No. 19AC-CC00226 (Cir. Ct. of Cole Cty., MO), voter ID (2018).
14. *Tyson v. Richardson Independent School District*, No. 3:18-cv-00212 (N.D. Texas), voting rights (2018).
15. *League of Women Voters of Michigan, et al. v. Johnson*, No. 2:17-cv-14148-DPH-SDD (S.D. Mich.), redistricting (2018).
16. *One Wisconsin Institute, Inc., et al. v. Nichol, et al.*, 198 F. Supp. 3d 896 (W.D. Wis.), voting rights (2016).
17. *Whitford et al. v. Gill et al*, 218 F. Supp. 3d 837, (W.D. Wis.), redistricting (2016).
18. *Milwaukee NAACP et al. v. Scott Walker et. al*, N.W.2d 262 (Wis. 2014), voter ID (2012).
19. *Baldus et al. v. Brennan et al.*, 849 F. Supp. 2d 840 (E.D. Wis.), redistricting, voting rights (2012).
20. *County of Kenosha v. City of Kenosha*, No. 22-CV-1813 (Wis. Cir. Ct., Kenosha Cty.) municipal redistricting (2011).
21. *McComish et al. v Brewer et al.*. 2010 WL 2292213 (D. Ariz.), campaign finance (2009).
22. *Baumgart et al. v. Wendelberger et al.*, 2002 WL 34127471 (E.D. Wis.), redistricting (2002).

### **Grants**

“A Multidisciplinary Approach for Redistricting Knowledge.” Principal Investigator. Co-PIs Adeline Lo (UW Madison, Department of Political Science), Song Gao (UW Madison, Department of Geography), and Barton Miller and Jin-Yi Cai (UW Madison, Department of Computer Sciences). University of Wisconsin Alumni Research Foundation (WARF), and UW

Madison Office of the Vice Chancellor for Research and Graduate Education. July 1, 2020-June 30, 2022. \$410,711.

“Analyzing Nonvoting and the Student Voting Experience in Wisconsin.” Dane County (WI) Clerk, \$44,157. November 2016-December 2017. Additional support (\$30,000) provided by the Office of the Chancellor, UW-Madison.

Campaign Finance Task Force, Stanford University and New York University, \$36,585. September 2016-August 2017.

Participant and Board Member, 2016 White House Transition Project, PIs Martha Joynt Kumar (Towson State University) and Terry Sullivan (University of North Carolina-Chapel Hill).

“How do You Know? The Structure of Presidential Advising and Error Correction in the White House.” Graduate School Research Committee, University of Wisconsin, \$18,941. July 1, 2015-June 30, 2016.

“Study and Recommendations for the Government Accountability Board Chief Inspectors’ Statements and Election Incident Report Logs.” \$43,234. Co-PI. With Barry C. Burden (PI), David T. Canon (co-PI), and Donald Moynihan (co-PI). October 2011-May 2012.

“Public Funding in Connecticut Legislative Elections.” Open Society Institute. September 2009- December 2010. \$55,000.

“Early Voting and Same Day Registration in Wisconsin and Beyond.” Co-PI. October 2008- September 2009. Pew Charitable Trusts. \$49,400. With Barry C. Burden (PI), David T. Canon (Co-PI), Kevin J. Kennedy (Co-PI), and Donald P. Moynihan (Co-PI).

City of Madison, Blue Ribbon Commission on Clean Elections. Joyce Foundation, Chicago, IL. \$16,188. January-July 2008.

“Wisconsin Campaign Finance Project: Public Funding in Connecticut State Legislative Elections.” JEHT Foundation, New York, NY. \$84,735. November 2006-November 2007.

“Does Public Election Funding Change Public Policy? Evaluating the State of Knowledge.” JEHT Foundation, New York, NY. \$42,291. October 2005-April 2006.

“Wisconsin Campaign Finance Project: Disseminating Data to the Academic, Reform, and Policy Communities.” Joyce Foundation, Chicago, IL. \$20,900. September 2005- August 2006.

“Enhancing Electoral Competition: Do Public Funding Programs for State and Local Elections Work?” Smith Richardson Foundation, Westport, CT. \$129,611. December 2002-June 2005

WebWorks Grant (implementation of web-based instructional technologies), Division of Information Technology, UW-Madison, \$1,000. November



1999.

“Issue Advocacy in Wisconsin during the 1998 Election.” Joyce Foundation, Chicago, IL. \$15,499. April 1999.

Instructional Technology in the Multimedia Environment (IN-TIME) grant, Learning Support Services, University of Wisconsin. \$5,000. March 1997.

“Public Financing and Electoral Competitiveness in the Minnesota State Legislature.” Citizens’ Research Foundation, Los Angeles, CA, \$2,000. May-November 1996.

“The Reach of Presidential Power: Policy Making Through Executive Orders.” National Science Foundation (SBR-9511444), \$60,004. September 1, 1995-August 31, 1998. Graduate School Research Committee, University of Wisconsin, \$21,965. Additional support provided by the Gerald R. Ford Library Foundation, the Eisenhower World Affairs Institute, and the Harry S. Truman Library Foundation.

The Future of the Combat Aircraft Industrial Base.” Changing Security Environment Project, John M. Olin Institute for Strategic Studies, Harvard University (with Ethan B. Kapstein). June 1993-January 1995. \$15,000.

Hilldale Student Faculty Research Grant, College of Letters and Sciences, University of Wisconsin (with John M. Wood). 1992. \$1,000 (\$3,000 award to student)

“Electoral Cycles in Federal Government Prime Contract Awards” March 1992 – February 1995. National Science Foundation (SES-9121931), \$74,216. Graduate School Research Committee at the University of Wisconsin, \$2,600. MacArthur Foundation, \$2,500.

C-SPAN In the Classroom Faculty Development Grant, 1991. \$500

### **Professional and Public Service**

Education and Social and Behavioral Sciences Institutional Review Board, 2008-2014. Acting Chair, Summer 2011. Chair, May 2012- June 2014.

Participant, U.S. Public Speaker Grant Program. United States Department of State (nationwide speaking tour in Australia, May 11-June 2, 2012).

Expert Consultant, Voces de la Frontera. Milwaukee Aldermanic redistricting, (2011).

Expert Consultant, Prosser for Supreme Court. Wisconsin Supreme Court election recount (2011).

Chair, Blue Ribbon Commission on Clean Elections (Madison, WI), August 2007-April 2011.

Consultant, Consulate of the Government of Japan (Chicago) on state politics in Illinois, Indiana, Minnesota, and Wisconsin, 2006-2011.



Section Head, Presidency Studies, 2006 Annual Meeting of the American Political Science Association.  
Co-Chair, Committee on Redistricting, Supreme Court of Wisconsin, November 2003-December 2009.  
Section Head, Presidency and Executive Politics, 2004 Annual Meeting of the Midwest Political Science Association, Chicago, IL.  
Presidency Research Group (organized section of the American Political Science Association) Board, September 2002-present.  
Book Review Editor, *Congress and the Presidency*, 2001-2006.  
Editorial Board, *American Political Science Review*, September 2004-September 2007.  
Consultant, Governor's Blue Ribbon Commission on Campaign Finance Reform (Wisconsin), 1997.

## **PUBLICATIONS**

### **Books**

*Presidential Leadership: Politics and Policymaking*, 11<sup>th</sup> edition. Lanham, MD: Rowman and Littlefield, 2020. With George C. Edwards, III and Steven J. Wayne. Previous editions 10<sup>th</sup> (2018).  
*The 2016 Presidential Elections: The Causes and Consequences of an Electoral Earthquake*. Lanham, MD: Lexington Press, 2017. Co-edited with Amnon Cavari and Richard J. Powell.  
*The Enduring Debate: Classic and Contemporary Readings in American Government*. 8<sup>th</sup> ed. New York: W.W. Norton & Co. 2017. Co-edited with David T. Canon and John Coleman. Previous editions 1<sup>st</sup> (1997), 2<sup>nd</sup> (2000), 3<sup>rd</sup> (2002), 4<sup>th</sup> (2006), 5<sup>th</sup> (2009), 6<sup>th</sup> (2011), 7<sup>th</sup> (2013).  
*Faultlines: Readings in American Government*, 5<sup>th</sup> ed. New York: W.W. Norton & Co. 2017. Co-edited with David T. Canon and John Coleman. Previous editions 1<sup>st</sup> (2004), 2<sup>nd</sup> (2007), 3<sup>rd</sup> (2011), 4<sup>th</sup> (2013).  
*The 2012 Presidential Election: Forecasts, Outcomes, and Consequences*. Lanham, MD: Rowman and Littlefield, 2014. Co-edited with Amnon Cavari and Richard J. Powell.  
*Readings in American Government*, 7<sup>th</sup> edition. New York: W.W. Norton & Co. 2002. Co-edited with Theodore J. Lowi, Benjamin Ginsberg, David T. Canon, and John Coleman). Previous editions 4<sup>th</sup> (1996), 5<sup>th</sup> (1998), 6<sup>th</sup> (2000).  
*With the Stroke of a Pen: Executive Orders and Presidential Power*. Princeton, NJ: Princeton University Press. 2001. Winner of the 2002 Neustadt Award from the Presidency Studies Group of the American Political Science Association, for the Best Book on the Presidency Published in 2001.  
*The Dysfunctional Congress? The Individual Roots of an Institutional Dilemma*.

Boulder, CO: Westview Press. 1999. With David T. Canon.  
*The Political Economy of Defense Contracting*. New Haven: Yale University Press. 1991.

### **Monographs**

*2008 Election Data Collection Grant Program: Wisconsin Evaluation Report*. Report to the Wisconsin Government Accountability Board, September 2009. With Barry C. Burden, David T. Canon, Stéphane Lavertu, and Donald P. Moynihan.

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"Does Public Financing of Campaigns Work?" *Trends in Campaign Financing*. Occasional Paper Series, Citizens' Research Foundation, Los Angeles, CA. 1996. With John M. Wood.

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- “The Complicated Partisan Effects of State Election Laws.” *Political Research Quarterly* 70:549-563 (No. 3, September 2017). With Barry C. Burden, David T. Canon, and Donald P. Moynihan.
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- “Election Laws, Mobilization, and Turnout: The Unanticipated Consequences of Election Reform.” *American Journal of Political Science*, 58:95-109 (No. 1, January 2014). With Barry C. Burden, David T. Canon, and Donald P. Moynihan. Winner of the State Politics and Politics Section of the American Political Science Association Award for the best article published in the *AJPS* in 2014.
- “Executive Power in the Obama Administration and the Decision to Seek Congressional Authorization for a Military Attack Against Syria: Implications for Theories of Unilateral Action.” *Utah Law Review* 2014:821-841 (No. 4, 2014).
- “Public Election Funding: An Assessment of What We Would Like to Know.” *The Forum* 11:365-485 (No. 3, 2013).
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- “The Effect of Administrative Burden on Bureaucratic Perception of Policies: Evidence from Election Administration.” *Public Administration Review* 72:741-451 (No. 5, September/October 2012). With Barry C. Burden, David T. Canon, and Donald Moynihan.
- “Early Voting and Election Day Registration in the Trenches: Local Officials’ Perceptions of Election Reform.” *Election Law Journal* 10:89-102 (No. 2, 2011). With Barry C. Burden, David T. Canon, and Donald Moynihan.
- “Is Political Science Relevant? Ask an Expert Witness,” *The Forum*: Vol. 8, No. 3, Article 6 (2010).
- “Thoughts on the Revolution in Presidency Studies,” *Presidential Studies Quarterly* 39 (no. 4, December 2009).
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- “The Last 100 Days.” *Presidential Studies Quarterly* 35:533-553 (No. 3, September 2005). With William Howell.
- “Political Reality and Unforeseen Consequences: Why Campaign Finance Reform is Too Important To Be Left To The Lawyers,” *University of Richmond Law Review* 37:1069-1110 (No. 4, May 2003).
- “Unilateral Presidential Powers: Significant Executive Orders, 1949-1999.” *Presidential Studies Quarterly* 32:367-386 (No. 2, June 2002). With Kevin Price.
- “Answering Ayres: Requiring Campaign Contributors to Remain Anonymous Would Not Resolve Corruption Concerns.” *Regulation* 24:24-29 (No. 4, Winter 2001).
- “Student Attitudes Toward Instructional Technology in the Large Introductory US Government Course.” *PS: Political Science and Politics* 33:597-604 (No. 3 September 2000). With John Coleman.
- “The Limits of Delegation – the Rise and Fall of BRAC.” *Regulation* 22:32-38 (No. 3, October 1999).
- “Executive Orders and Presidential Power.” *The Journal of Politics* 61:445-466 (No.2, May 1999).
- “Bringing Politics Back In: Defense Policy and the Theoretical Study of Institutions and Processes.” *Public Administration Review* 56:180-190 (1996). With Anne Khademian.
- “Closing Military Bases (Finally): Solving Collective Dilemmas Through Delegation.” *Legislative Studies Quarterly*, 20:393-414 (No. 3, August 1995).
- “Electoral Cycles in Federal Government Prime Contract Awards: State-Level Evidence from the 1988 and 1992 Presidential Elections.” *American*

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- “The Impact of Public Financing on Electoral Competitiveness: Evidence from Wisconsin, 1964-1990.” *Legislative Studies Quarterly* 20:69-88 (No. 1, February 1995). With John M. Wood.
- “Policy Disputes as a Source of Administrative Controls: Congressional Micromanagement of the Department of Defense.” *Public Administration Review* 53:293-302 (No. 4, July-August 1993).
- “Combat Aircraft Production in the United States, 1950-2000: Maintaining Industry Capability in an Era of Shrinking Budgets.” *Defense Analysis* 9:159-169 (No. 2, 1993).

### **Book Chapters**

- “Is President Trump Conventionally Disruptive, or Unconventionally Destructive?” In *The 2016 Presidential Elections: The Causes and Consequences of an Electoral Earthquake*. Lanham, MD: Lexington Press, 2017. Co-edited with Amon Cavari and Richard J. Powell.
- “Lessons of Defeat: Republican Party Responses to the 2012 Presidential Election. In Amnon Cavari, Richard J. Powell, and Kenneth R. Mayer, eds. *The 2012 Presidential Election: Forecasts, Outcomes, and Consequences*. Lanham, MD: Rowman and Littlefield. 2014.
- “Unilateral Action.” George C. Edwards, III, and William G. Howell, *Oxford Handbook of the American Presidency* (New York: Oxford University Press, 2009).
- “Executive Orders,” in Joseph Bessette and Jeffrey Tulis, *The Constitutional Presidency*. Baltimore: Johns Hopkins University Press, 2009.
- “Hey, Wait a Minute: The Assumptions Behind the Case for Campaign Finance Reform.” In Gerald C. Lubenow, ed., *A User’s Guide to Campaign Finance Reform*. Lanham, MD: Rowman & Littlefield, 2001.
- “Everything You Thought You Knew About Impeachment Was Wrong.” In Leonard V. Kaplan and Beverly I. Moran, ed., *Aftermath: The Clinton Impeachment and the Presidency in the Age of Political Spectacle*. New York: New York University Press. 2001. With David T. Canon.
- “The Institutionalization of Power.” In Robert Y. Shapiro, Martha Joynt Kumar, and Lawrence R. Jacobs, eds. *Presidential Power: Forging the Presidency for the 21<sup>st</sup> Century*. New York: Columbia University Press, 2000. With Thomas J. Weko.
- “Congressional-DoD Relations After the Cold War: The Politics of Uncertainty.” In *Downsizing Defense*, Ethan Kapstein ed. Washington DC: Congressional Quarterly Press. 1993.



“Elections, Business Cycles, and the Timing of Defense Contract Awards in the United States.” In Alex Mintz, ed. *The Political Economy of Military Spending*. London: Routledge. 1991.

“Patterns of Congressional Influence In Defense Contracting.” In Robert Higgs, ed., *Arms, Politics, and the Economy: Contemporary and Historical Perspectives*. New York: Holmes and Meier. 1990.

### **Other**

“Campaign Finance: Some Basics.” Bauer-Ginsberg Campaign Finance Task Force, Stanford University. September 2017. With Elizabeth M. Sawyer.

“The Wisconsin Recount May Have a Surprise in Store after All.” *The Monkey Cage* (Washington Post), December 5, 2016. With Stephen Ansolabehere, Barry C. Burden, and Charles Stewart, III.

Review of Jason K. Dempsey, *Our Army: Soldiers, Politicians, and American Civil-Military Relations*. *The Forum* 9 (No. 3, 2011).

“Voting Early, but Not Often.” *New York Times*, October 25, 2010. With Barry C. Burden.

Review of John Samples, *The Fallacy of Campaign Finance Reform* and Raymond J. La Raja, *Small Change: Money, Political Parties, and Campaign Finance Reform*. *The Forum* 6 (No. 1, 2008).

Review Essay, *Executing the Constitution: Putting the President Back Into the Constitution*, Christopher S. Kelley, ed.; *Presidents in Culture: The Meaning of Presidential Communication*, David Michael Ryfe; *Executive Orders and the Modern Presidency: Legislating from the Oval Office*, Adam L. Warber. In *Perspective on Politics* 5:635-637 (No. 3, September 2007).

“The Base Realignment and Closure Process: Is It Possible to Make Rational Policy?” Brademas Center for the Study of Congress, New York University. 2007.

“Controlling Executive Authority in a Constitutional System” (comparative analysis of executive power in the U.S. and Australia), manuscript, February 2007.

“Campaigns, Elections, and Campaign Finance Reform.” *Focus on Law Studies*, XXI, No. 2 (Spring 2006). American Bar Association, Division for Public Education.

“Review Essay: Assessing The 2000 Presidential Election – Judicial and Social Science Perspectives.” *Congress and the Presidency* 29: 91-98 (No. 1, Spring 2002).

Issue Briefs (Midterm Elections, Homeland Security; Foreign Affairs and Defense Policy; Education; Budget and Economy; Entitlement Reform) 2006

- Reporter's Source Book*. Project Vote Smart. 2006. With Meghan Condon.
- "Sunlight as the Best Disinfectant: Campaign Finance in Australia." Democratic Audit of Australia, Australian National University. October 2006.
- "Return to the Norm," *Brisbane Courier-Mail*, November 10, 2006.
- "The Return of the King? Presidential Power and the Law," *PRG Report* XXVI, No. 2 (Spring 2004).
- Issue Briefs (Campaign Finance Reform, Homeland Security; Foreign Affairs and Defense Policy; Education; Budget and Economy; Entitlement Reform), *2004 Reporter's Source Book*. Project Vote Smart. 2004. With Patricia Strach and Arnold Shober.
- "Where's That Crystal Ball When You Need It? Finicky Voters and Creaky Campaigns Made for a Surprise Electoral Season. And the Fun's Just Begun." *Madison Magazine*. April 2002.
- "Capitol Overkill." *Madison Magazine*, July 2002.
- Issue Briefs (Homeland Security; Foreign Affairs and Defense Policy; Education; Economy, Budget and Taxes; Social Welfare Policy), *2002 Reporter's Source Book*. Project Vote Smart. 2002. With Patricia Strach and Paul Manna.
- "Presidential Emergency Powers." *Oxford Analytica Daily Brief*. December 18, 2001.
- "An Analysis of the Issue of Issue Ads." *Wisconsin State Journal*, November 7, 1999.
- "Background of Issue Ad Controversy." *Wisconsin State Journal*, November 7, 1999.
- "Eliminating Public Funding Reduces Election Competition." *Wisconsin State Journal*, June 27, 1999.
- Review of *Executive Privilege: The Dilemma of Secrecy and Democratic Accountability*, by Mark J. Rozell. *Congress and the Presidency* 24 (No. 1, 1997).
- "Like Marriage, New Presidency Starts In Hope." *Wisconsin State Journal*. March 31, 1996.
- Review of *The Tyranny of the Majority: Fundamental Fairness in Representative Democracy*, by Lani Guinier. *Congress and the Presidency* 21: 149-151 (No. 2, 1994).
- Review of *The Best Defense: Policy Alternatives for U.S. Nuclear Security From the 1950s to the 1990s*, by David Goldfischer. *Science, Technology, and Environmental Politics Newsletter* 6 (1994).
- Review of *The Strategic Defense Initiative*, by Edward Reiss. *American Political Science Review* 87:1061-1062 (No. 4, December 1993).

- Review of *The Political Economy of Defense: Issues and Perspectives*, Andrew L. Ross ed. *Armed Forces and Society* 19:460-462 (No. 3, April 1993)
- Review of *Space Weapons and the Strategic Defense Initiative*, by Crockett Grabbe. *Annals of the American Academy of Political and Social Science* 527: 193-194 (May 1993).
- “Limits Wouldn't Solve the Problem.” *Wisconsin State Journal*, November 5, 1992. With David T. Canon.
- “Convention Ceded Middle Ground.” *Wisconsin State Journal*, August 23, 1992.
- “CBS Economy Poll Meaningless.” *Wisconsin State Journal*, February 3, 1992.
- “It's a Matter of Character: Pentagon Doesn't Need New Laws, it Needs Good People.” *Los Angeles Times*, July 8, 1988.

### **Conference Papers**

- “Voter Identification and Nonvoting in Wisconsin – Evidence from the 2016 Election.” Presented at the 2018 Annual Meeting of the Midwest Political Science Association, Chicago, IL April 5-8, 2018. With Michael G. DeCrescenzo.
- “Learning from Recounts.” Presented at the Workshop on Electoral Integrity, San Francisco, CA, August 30, 2017, and at the 2017 Annual Meeting of the American Political Science Association, San Francisco, CA, August 31-September 3, 2017. With Stephen Ansolabehere, Barry C. Burden, and Charles Stewart, III.
- “What Happens at the Polling Place: Using Administrative Data to Understand Irregularities at the Polls.” Conference on New Research on Election Administration and Reform, Massachusetts Institute of Technology, Cambridge, MA, June 8, 2015. With Barry C. Burden, David T. Canon, Donald P. Moynihan, and Jake R. Neiheisel.
- “Election Laws and Partisan Gains: What are the Effects of Early Voting and Same Day Registration on the Parties' Vote Shares.” 2013 Annual Meeting of the Midwest Political Science Association, Chicago, IL, April 11-14, 2013. Winner of the Robert H. Durr Award.
- “The Effect of Public Funding on Electoral Competition: Evidence from the 2008 and 2010 Cycles.” Annual Meeting of the American Political Science Association, Seattle, WA, September 1-4, 2011. With Amnon Cavari.
- “What Happens at the Polling Place: A Preliminary Analysis in the November 2008 General Election.” Annual Meeting of the American Political Science Association, Seattle, WA, September 1-4, 2011. With Barry C. Burden, David T. Canon, Donald P. Moynihan, and Jake R. Neiheisel.
- “Election Laws, Mobilization, and Turnout: The Unanticipated Consequences of



- Election Reform.” 2010 Annual Meeting of the American Political Science Association, Washington, DC, September 2-5, 2010. With Barry C. Burden, David T. Canon, Stéphane Lavertu and Donald P. Moynihan.
- “Selection Methods, Partisanship, and the Administration of Elections. Annual Meeting of the Midwest Political Science Association, Chicago, IL, April 22-25, 2010. Revised version presented at the Annual Meeting of the European Political Science Association, June 16-19, 2011, Dublin, Ireland. With Barry C. Burden, David T. Canon, Stéphane Lavertu and Donald P. Moynihan.
- “The Effects and Costs of Early Voting, Election Day Registration, and Same Day Registration in the 2008 Elections.” Annual Meeting of the American Political Science Association, Toronto, Canada, September 3-5, 2009. With Barry C. Burden, David T. Canon, and Donald P. Moynihan.
- “Comparative Election Administration: Can We Learn Anything From the Australian Electoral Commission?” Annual Meeting of the American Political Science Association, Chicago, IL, August 29-September 1, 2007.
- “Electoral Transitions in Connecticut: Implementation of Public Funding for State Legislative Elections.” Annual Meeting of the American Political Science Association, Chicago, IL, August 29-September 1, 2007. With Timothy Werner.
- “Candidate Gender and Participation in Public Campaign Finance Programs.” Annual Meeting of the Midwest Political Science Association, Chicago IL, April 7-10, 2005. With Timothy Werner.
- “Do Public Funding Programs Enhance Electoral Competition?” 4<sup>th</sup> Annual State Politics and Policy Conference,” Akron, OH, April 30-May 1, 2004. With Timothy Werner and Amanda Williams.
- “The Last 100 Days.” Annual Meeting of the American Political Science Association, Philadelphia, PA, August 28-31, 2003. With William Howell.
- “Hey, Wait a Minute: The Assumptions Behind the Case for Campaign Finance Reform.” Citizens’ Research Foundation Forum on Campaign Finance Reform, Institute for Governmental Studies, University of California Berkeley. August 2000.
- “The Importance of Moving First: Presidential Initiative and Executive Orders.” Annual Meeting of the American Political Science Association, San Francisco, CA, August 28-September 1, 1996.
- “Informational vs. Distributive Theories of Legislative Organization: Committee Membership and Defense Policy in the House.” Annual Meeting of the American Political Science Association, Washington, DC, September 2-5, 1993.
- “Department of Defense Contracts, Presidential Elections, and the Political-

Business Cycle.” Annual Meeting of the American Political Science Association, Washington, DC, September 2-5, 1993.

“Problem? What Problem? Congressional Micromanagement of the Department of Defense.” Annual Meeting of the American Political Science Association, Washington DC, August 29 - September 2, 1991.

### **Talks and Presentations**

“Turnout Effects of Voter ID Laws.” Rice University, March 23, 2018; Wisconsin Alumni Association, October 13, 2017. With Michael DeCrescenzo.

“Informational and Turnout Effects of Voter ID Laws.” Wisconsin State Elections Commission, December 12, 2017; Dane County Board of Supervisors, October 26, 2017. With Michael DeCrescenzo.

“Voter Identification and Nonvoting in Wisconsin, Election 2016. American Politics Workshop, University of Wisconsin, Madison, November 24, 2017.

“Gerrymandering: Is There A Way Out?” Marquette University. October 24, 2017.

“What Happens in the Districting Room and What Happens in the Courtroom” Geometry of Redistricting Conference, University of Wisconsin-Madison October 12, 2017.

“How Do You Know? The Epistemology of White House Knowledge.” Clemson University, February 23, 2016.

Roundtable Discussant, Separation of Powers Conference, School of Public and International Affairs, University of Georgia, February 19-20, 2016.

Campaign Finance Task Force Meeting, Stanford University, February 4, 2016.

Discussant, “The Use of Unilateral Powers.” American Political Science Association Annual Meeting, August 28-31, 2014, Washington, DC.

Presenter, “Roundtable on Money and Politics: What do Scholars Know and What Do We Need to Know?” American Political Science Association Annual Meeting, August 28-September 1, 2013, Chicago, IL.

Presenter, “Roundtable: Evaluating the Obama Presidency.” Midwest Political Science Association Annual Meeting, April 11-14, 2012, Chicago, IL.

Panel Participant, “Redistricting in the 2010 Cycle,” Midwest Democracy Network,

Speaker, “Redistricting and Election Administration,” Dane County League of Women Voters, March 4, 2010.

Keynote Speaker, “Engaging the Electorate: The Dynamics of Politics and Participation in 2008.” Foreign Fulbright Enrichment Seminar, Chicago, IL, March 2008.

Participant, Election Visitor Program, Australian Electoral Commission, Canberra, ACT, Australia. November 2007.

Invited Talk, "Public Funding in State and Local Elections." Reed College Public Policy Lecture Series. Portland, Oregon, March 19, 2007.

Fulbright Distinguished Chair Lecture Tour, 2006. Public lectures on election administration and executive power. University of Tasmania, Hobart (TAS); Flinders University and University of South Australia, Adelaide (SA); University of Melbourne, Melbourne (VIC); University of Western Australia, Perth (WA); Griffith University and University of Queensland, Brisbane (QLD); Institute for Public Affairs, Sydney (NSW); The Australian National University, Canberra (ACT).

Discussant, "Both Ends of the Avenue: Congress and the President Revisited," American Political Science Association Meeting, September 2-5, 2004, Chicago, IL.

Presenter, "Researching the Presidency," Short Course, American Political Science Association Meeting, September 2-5, 2004, Chicago, IL.

Discussant, Conference on Presidential Rhetoric, Texas A&M University, College Station, TX. February 2004.

Presenter, "Author Meets Author: New Research on the Presidency," 2004 Southern Political Science Association Meeting, January 8-11, New Orleans, LA.

Chair, "Presidential Secrecy," American Political Science Association Meeting, August 28-31, 2003, Philadelphia, PA.

Discussant, "New Looks at Public Approval of Presidents." Midwest Political Science Association Meeting, April 3-6, 2003, Chicago, IL.

Discussant, "Presidential Use of Strategic Tools." American Political Science Association Meeting, August 28-September 1, 2002, Boston, MA.

Chair and Discussant, "Branching Out: Congress and the President." Midwest Political Science Association Meeting, April 19-22, 2001, Chicago, IL.

Invited witness, Committee on the Judiciary, Subcommittee on Commercial and Administrative Law, U.S. House of Representatives. *Hearing on Executive Order and Presidential Power*, Washington, DC. March 22, 2001.

"The History of the Executive Order," Miller Center for Public Affairs, University of Virginia (with Griffin Bell and William Howell), January 26, 2001.

Presenter and Discussant, Future Voting Technologies Symposium, Madison, WI May 2, 2000.

Moderator, Panel on Electric Utility Reliability. Assembly Staff Leadership Development Seminar, Madison, WI. August 11, 1999.

Chair, Panel on "Legal Aspects of the Presidency: Clinton and Beyond." Midwest Political Science Association Meeting, April 15-17, 1999, Chicago, IL.

Session Moderator, National Performance Review Acquisition Working Summit,

Milwaukee, WI. June 1995.  
American Politics Seminar, The George Washington University, Washington D.C.,  
April 1995.  
Invited speaker, Defense and Arms Control Studies Program, Massachusetts  
Institute of Technology, Cambridge, MA, March 1994.  
Discussant, International Studies Association (Midwest Chapter) Annual Meeting,  
Chicago IL, October 29-30, 1993.  
Seminar on American Politics, Princeton University, January 16-17, 1992.  
Conference on Defense Downsizing and Economic Conversion, October 4, 1991,  
Harvard University.  
Conference on Congress and New Foreign and Defense Policy Challenges, The  
Ohio State University, Columbus OH, September 21-22, 1990, and  
September 19-21, 1991.  
Presenter, "A New Look at Short Term Change in Party Identification," 1990  
Meeting of the American Political Science Association, San Francisco, CA.