

EXHIBIT P

IN THE SUPERIOR COURT OF FULTON COUNTY
STATE OF GEORGIA

**DONALD J. TRUMP, in his capacity as a
Candidate for President, DONALD J.
TRUMP FOR PRESIDENT, INC., and
DAVID J. SHAFER, in his capacity as a
Registered Voter and Presidential Elector
pledged to Donald Trump for President,**

Petitioners,

v.

**BRAD RAFFENSPERGER, in his official
capacity as Secretary of State of Georgia,
REBECCA N. SULLIVAN, in her official
capacity as Vice Chair of the Georgia State
Election Board, DAVID J. WORLEY, in
his official capacity as a Member of the
Georgia State Election Board, MATTHEW
MASHBURN, in his official capacity as a
Member of the Georgia State Election
Board, ANH LE, in her official capacity as
a Member of the Georgia State Election
Board, RICHARD L. BARRON, in his
official capacity as Director of Registration
and Elections for Fulton County, JANINE
EVELER, in her official capacity as
Director of Registration and Elections for
Cobb County, ERICA HAMILTON in her
official capacity as Director of Voter
Registration and Elections for DeKalb
County, KRISTI ROYSTON, in her official
capacity as Elections Supervisor for
Gwinnett County, RUSSELL BRIDGES, in
his official capacity as Elections Supervisor
for Chatham County, ANNE DOVER, in
her official capacity as Acting Director of
Elections and Voter Registration for
Cherokee County, SHAUNA DOZIER, in
her official capacity as Elections Director
for Clayton County, MANDI SMITH, in
her official capacity as Director of Voter
Registration and Elections for Forsyth
County, AMEIKA PITTS, in her official**

Civil Action No. 2020CV33255

capacity as Director of the Board of)
 Elections & Registration for Henry County,)
 LYNN BAILEY, in her official capacity as)
 Executive Director of Elections for)
 Richmond County, DEBRA PRESSWOOD,)
 in her official capacity as Registration and)
 Election Supervisor for Houston County,)
 VANESSA WADDELL, in her capacity as)
 Chief Clerk of Elections for Floyd County,)
 JULIANNE ROBERTS, in her official)
 capacity as Supervisor of Elections and)
 Voter Registration for Pickens County,)
 JOSEPH KIRK, in his official capacity as)
 Elections Supervisor for Bartow County,)
 and GERALD MCCOWN, in his official)
 capacity as Elections Supervisor for)
 Hancock County,)
)
 Respondents.)
)
 _____)

DECLARATION OF CHARLES STEWART III

1. My name is Charles Stewart III. I am over the age of 21 and am competent to give this Declaration. My opinions set forth below are based on my personal knowledge and professional expertise.

2. I am the Kenan Sahin Distinguished Professor of Political Science at the Massachusetts Institute of Technology, where I have been on the faculty since 1985. In that time, I have done research and taught classes at the graduate and undergraduate levels in the fields of American politics, research methodology, elections, and legislative politics.

3. I received my B.A. in political science from Emory University in 1979, my S.M. in political science from Stanford University in 1981, and my Ph.D. in political science from Stanford University in 1985.

4. Since November 2020 I have been a member of the Caltech/MIT Voting Technology Project (VTP). The VTP is the nation's oldest academic project devoted to the study of voting machines, voting technology, election administration, and election reform. I have been the MIT director of the project for 15 years.

5. I am the founding director of the MIT Election Data and Science Lab (MEDSL), which was founded in January 2016. MEDSL is devoted to the impartial, scientific analysis of elections and election administration (sometimes called election science) in the United States.

6. I have been the author or co-author of numerous peer-reviewed publications and books in political science, and in particular, the area of election administration and election science.

7. I have been accepted as an expert witness in three cases in federal district court that have involved record linkage and matching between voter files and other data sources, such as driver's license files. These cases were *Florida v. Holder* (1:11-CV-01428), *South Carolina v. Holder* (1:12-CV-203), and *U.S. v. North Carolina* (1:13-CV-861).

8. I have attached an abridged version of my curriculum vitae to this statement, as Appendix 1.

9. As a part of my academic research, I have regularly designed public opinion surveys to probe questions related to the conduct of elections in the United States. I have been the principal investigator of modules pertaining to election science that were part of the Cooperative Election Study in 2012, 2013, 2014, 2016, 2018, 2019, and 2020.

10. I was the principal investigator of the project that led to the creation and design of the Survey of the Performance of American Elections (SPAЕ). The SPAЕ is the only large-scale academic survey that focuses on the experience of voters in federal elections. I supervised the

development of the survey instrument and the reporting of the results. This survey, which interviews over 10,000 voters following every presidential election, has been implemented following the 2008, 2012, 2016, and 2020 elections.

11. My work on this report has been performed without compensation. My standard rate of compensation is \$500 per hour.

Summary

12. I have reviewed the reports written by Mr. Matthew Braynard, Mr. Bryan Geels, and Mr. Mark Alan Davis submitted in this case.

13. Mr. Braynard's report primarily rests on matching Georgia voter files with other data files in an attempt to uncover fraudulent voting in Georgia during the 2020 general election. This database matching relies on procedures that are known to be unreliable and to produce a preponderance of "false positives." Mr. Braynard's conclusions, therefore, are unreliable and without merit.

14. Mr. Geels filed two reports. The first primarily involves the inspection of Georgia voter files for the purpose of uncovering anomalies with the dates in the files. The anomalies Mr. Geels uncovers are generally minor typographical and clerical errors that are neither signs of fraudulent behavior nor lax control over election administration in the state. He discusses other seemingly major anomalies that, upon even cursory examination, are either better characterized as benign errors or, in a few cases, suggest errors of analysis or ignorance of Georgia law on the part of Mr. Geels. Mr. Geels also performs some database matching that relies on the same discredited matching procedures employed by Mr. Braynard. Mr. Geels's conclusions, therefore, are unreliable and without merit.

15. Mr. Geels's second report covers the absentee-ballot rejection rate in Georgia. That report displays basic data about rejection rates over the past several statewide elections. It draws negative inferences about the decline of rejection rates in 2020 that are unfounded.

16. Mr. Davis's report also examines Georgia voter files, matching them with outside data such as the National Change of Address (NCOA) registry, in an attempt to document vote fraud. Mr. Davis provides practically no details about the methods used to reach his conclusion. To the degree his matching methodology is revealed, it is the same discredited technique used by Messrs. Braynard and Geels. Mr. Davis's conclusions, therefore, are unreliable and without merit.

17. None of the authors of these reports are experts in the field in which they offer their opinions, as is evidenced by their lack of training and professional experience in database matching and election administration, by their failure to acknowledge the scientific literature in the field, and by their failure to acknowledge limitations inherent in the analysis they perform.

Mr. Braynard's Report

18. Mr. Braynard's claims can be summarized as follows:

- a. 4,926 absentee or early voters were no longer legal residents of the State of Georgia when they voted, due to their subsequent voter registration in another state. (¶12)
- b. 15,700 voters may have vacated their residence in the State of Georgia, as evidenced by their filing of a National Change of Address form to an address in another state. (¶12)
- c. 1,043 early and absentee ballots were cast by voters who were illegally registered using a post office box disguised as a residential address. (¶13)

- d. 395 individuals in the State of Georgia voted in Georgia and another state. (¶14)

Matching between voter files and other databases is prone to error, owing to their size and the lack of unique identifiers. Mr. Braynard fails to acknowledge this challenge and appears to be ignorant of the scientific literature that has arisen to meet this challenge.

19. The basis of Mr. Braynard’s opinions derives from database matching between what he claims to be voter files and datafiles provided by the United States Postal Service. Assuming for the moment that Mr. Braynard is in fact using data from the Georgia Secretary of State, database matching—sometimes called “record linkage”—involving voter files is known to be error-prone. This is because the sheer size of the data files in question can be unwieldy, and because one rarely has shared unique identifiers in the files being matched.

20. The lack of unique identifiers across databases means that there are heightened risks of producing *false positives* and *false negatives* when performing matching analysis.

21. A *false positive* is when an individual in database A is incorrectly matched to an individual in database B, perhaps because they happen to share the same first and last name. False positives can be minimized by including distinguishing information, such as a middle initial, a date of birth, or address. Doing so makes matches more precise.

22. A *false negative* is when there is an individual in database A who is not matched to his or her record in database B because of inconsistencies in how the matching variables are maintained in the two databases—for instance, when the same individual’s name is recorded as “Bob Smith” in one database and “Robert Smith” in the other. False negatives can be minimized by employing matching procedures, or algorithms, that iteratively employ augmented data fields in a systematic manner. For instance, names might be matched based on phonetic similarity or nicknames might be converted to given names.

23. Voting files, such as those maintained by the Georgia Secretary of State and made available to the public, have unique identifiers that allow users to match individuals across the files. Georgia assigns a unique voter identification number to each registered voter. This number appears in the data files at issue in this case.

24. In the United States, the Social Security number (SSN) is the closest thing to a unique identifier to aid in the matching across databases that have been assembled for unrelated administrative reasons, despite the fact that the SSN was not designed for this purpose. In 2010, a committee of the National Academy of Science recommended the use of the SSN as the gold standard in database matching involving voter files.¹

25. An alternative to the SSN that is nearly as good when working with the voter file of a single state is the driver's license number. Because of the utility of having unique identifiers in conducting list maintenance and other election administration activities, the Help America Vote Act requires states to include a request for the driver's license number or last four digits of the Social Security number (SSN4).² Neither of these numbers are made available in the public data files published by the Secretary of State.

26. Because publicly available voter files lack unique identifiers that facilitate matching with non-voter-file databases, the scientific community has developed alternatives that perform nearly as well as matches with SSN4 or driver's license numbers. The most widely used technique is the "ADGN" method described by Ansolabehere and Hersh in the journal *Statistics and Public Policy*.³

¹ National Academy of Science, Committee on State Voter Registration Databases, *Improving State Voter Registration Databases: Final Report*, 2010, <https://www.nap.edu/catalog/12788/improving-state-voter-registration-databases-final-report>.

² Help America Vote Act, 42 USC 15482.

³ Stephen Ansolabehere and Eitan D. Hersh, "ADGN: An Algorithm for Record Linkage using Address, Date of Birth, Gender, and Name," *Statistics and Public Policy*, vol 4, no. 1 (2017), pp. 1 – 10.

27. Even when researchers have access to databases with unique identifiers, it is standard practice to do spot checks, to ensure that the match has performed as expected. This is especially important, though, when researchers do not have access to unique identifiers, because the risk of false positives and negatives is so much greater. Although, to my knowledge, there is no scientific consensus on a precise method to engage in such spot checks, most would agree that the best approach is to take a random sample of one's matches and independently verify the quality of the match using independent information.

28. Despite the well-known challenges to database matching involving voter files, Mr. Braynard fails to acknowledge the state of the art in the field and undertakes the most unreliable matching method that is known to experts, that is, a match of name and birthdate (Braynard Report, ¶24). Elsewhere, he refers to employing "strong matches," which has no meaning in the field (Braynard Report, ¶18). By the context, I assume he is referring to the name + birthdate.

29. In ¶24, Mr. Braynard states he matched based on birth *date*. However, the public Georgia voter registration file reports only birth *year*. If he in fact matched using the public data, referring to it as birth *date* is misleading. If he did have access to birth *date*, it was added by an external source that was likely L2.

30. In ¶24, Mr. Braynard states he matches on "full exact name." The term "full exact name" is ambiguous, since it can refer to a number of name combinations: first name + last name, first name + middle name + last name, first name + middle initial + last name, first name + last name + suffix, etc. The description of the matching criteria with respect to the name field is so imprecise as to make it impossible to judge whether the search is overly broad or overly narrow.

31. The name + birthdate (N+DOB) match is a highly inaccurate matching algorithm with voter files because the files are so large and so many voters share names—even people born in the same day. This yields a problem with *precision* in record linkage, which is the measure of matches across datasets that are true matches. In other words, with so many voters sharing names and birth dates, it is impossible to know *which voter* from the voter file corresponds with the voter in the other file. Large numbers of false positives are virtually guaranteed.

32. To illustrate the practical problem for Mr. Braynard’s analysis, consider the Georgia voter file. In September 2020, I purchased a copy of the Georgia voter file from the Secretary of State, to use in my academic research. That file, dated September 9, 2020, contains 7,346,219 records. Of these, 7,280,948 are unique name + birth year combinations, leaving the remaining 65,271 registrants sharing a first name, middle name, last name, and birth year with *at least* one other voter.

33. If a set of voters with common names and birthdates from Georgia are matched with even one registered voter outside of Georgia, what procedures did Mr. Braynard use to determine whether the “correct” Georgia voter had been matched? Because Mr. Braynard was matching to the voter files of another 49 states, the problem of encountering imprecise matches among all the other states’ voter files is even greater. So, what procedures did Mr. Braynard use when a Georgia with a unique name + DOB combination matched with a set of voters outside of Georgia who all shared that combination? Mr. Braynard fails to even acknowledge this very serious issue, much less specify how he judges the quality of his matches in general.⁴

⁴ The problem I discuss here is related to the well-known “birthday problem” paradox, and has been explored in the scientific literature for its applicability to matching with voter files. See, for instance, Michael P. McDonald and Justin Levitt, “Seeing Double Voting: An Extension of the Birthday Problem,” *Election Law Journal*, vol. 7, no. 2 (2008), pp. 111 – 122.

34. A core value of scientific research is replication. In order to ensure replication of research, it is necessary to clearly identify one's data. Mr. Braynard fails to do this. For instance, Mr. Braynard claims to have used voter registration records and mail-in and early in-person absentee voter records, "as maintained on the Georgia Secretary of State's website" (Braynard Report, ¶5).⁵ Elsewhere, he states that he received these files from the company L2 Political, which made them available to Mr. Braynard, presumably for a fee. L2 is known to augment state datafiles, so that they are useful to their primary clients, political campaigns. Among these augmentations are changing information in data fields based on data from commercial datasets. If Mr. Braynard is in fact relying on files obtained by L2, rather than received directly from the Secretary of State's office, he has failed to discuss the degree to which the L2 data match the raw data available from the Secretary of State. At the very least, this imprecision makes the confident replication of Mr. Braynard's research impossible.

Mr. Braynard's claim that 4,926 absentee or early voters were no longer legal residents of the State of Georgia when they voted, due to their subsequent voter registration in another state, is unreliable.

35. In ¶12 of Mr. Braynard's report, he claims that 4,926 *absentee or early voters* [my emphasis] were no longer legal residents of Georgia when they voted, because they subsequently registered in another state after they voted in Georgia. In ¶20, where Mr. Braynard provides details of the analysis, he reports comparing Georgia's *voter registration file* [my emphasis] to the nationwide L2 voter list. The voter registration and absentee ballot files are different. The voter registration file contains no information about the mode a voter used to cast a ballot. Because the *claim* he makes in ¶12 is about absentee and early voters, I assume he is actually

⁵ The voter registration file is not, in fact, maintained (more accurately, downloadable) on the Secretary of State's website. One can *request* the file and, for a fee, later receive a link that allows you to download it.

referring to the absentee voter file.⁶ However, it is impossible to tell for sure from the text of the report.

36. Mr. Braynard does not mention in ¶20 the algorithm he used to match the voter registration (or absentee ballot) file with the registration databases of other states. However, Mr. Braynard mentions using the N + DOB algorithm in the second part of that paragraph, when he discusses matching with the NCOA database. Therefore, I assume he used that algorithm in matching with the other states' registration databases, as well.

37. The match that Mr. Braynard describes in ¶20 appears to include people who may have moved from Georgia long ago and then returned—if, in fact, the matches are accurate. Attached to his report is Appendix 2, which is described as the output of the match that produced the 4,926 Georgians on his list. I translated this appendix into a form that could be read into a statistical package⁷ and examined the dates when the individuals are indicated to have registered in Georgia and then a second state. I discovered, first, that the number of distinct people on the list appear to be closer to 4,600.⁸ Of these individuals, 1,465 have a date indicating a registration in the second state that occurred in 2010 or before; 300 are from 2000 or before. Only 164 bear a date of 2020 and 285 bear a date of 2019. It is clear that Mr. Braynard has conducted a search that is overly broad in its chronological reach.

38. As discussed above, this matching algorithm is very imprecise and is prone to producing false positives, owing to the large number of people who share names and birthdates. If over 65,000 registered Georgians share first names, last names, and birth years with each

⁶ However, a literal reading of ¶20 suggests Mr. Braynard may be referring to all voters, not just early and absentee voters. This would, of course, contradict the claim in ¶12, but would make sense in light of the second half of ¶20, which explicitly refers to the absentee files.

⁷ I first translated the file into an Excel spreadsheet using the program Able2Extract. I then imported the spreadsheet into the statistical package Stata, version 16.

⁸ For instance, there are 4,617 distinct combinations of first name, last name, suffix [sic], street address, city and state in the appendix. I am assuming the field labeled “suffix” is actually the middle name.

other, it would be unsurprising that 4,926 Georgians would share names and birthdates with voters in other states who happened to register in the weeks leading up to the 2020 general election.

Mr. Braynard’s claim that 15,700 voters may have vacated their residence in the State of Georgia, as evidenced by their filing of a National Change of Address form to an address in another state, is unreliable.

39. In ¶20, Mr. Braynard provides what passes for a description of his analysis that led him to the conclusion that 15,700 voters had “vacated their residence in the State of Georgia” by filing an NCOA form to an address in another state. The description of the matching procedure is so imprecise that it is impossible to judge his findings with any certainty. First, as with this prior analysis, he provides no details about how he matched the absentee voter files with the NCOA database. How did he prepare the datasets for matching, what data fields did he use to match, how did he deal with potential duplicates, and how did he verify the precision of his match?

40. There are well-known problems in relying on matches with individuals to the NCOA database. One of these is the fact that household members may share the same name, meaning that a match may not be precise. Another is that individuals of households may be inadvertently included in the NCOA request.

41. In addition to the matching problems, there is the simple problem that there may be legitimate reasons for someone to file an NCOA request and yet retain their Georgia residency. Obvious cases include members of the military, students, vacation-home owners, and those on extended temporary assignments for business reasons.

42. Finally, Mr. Braynard notes in ¶20 that he accounted “for moves that would not cause an individual to lose their residency and eligibility to vote under state law (i.e., by reducing

the total number of moves by a reasonable percentage likely attributable to an educational or military relocation.)” This describes a completely opaque and arbitrary correction that fails to meet standards of scientific rigor. What criteria were used to account for educational and military relocations? What amounts to a “reasonable percentage?” This type of *ad hoc* adjustment, without clear description or foundation in the scientific literature, and is inconsistent with scientific methodology underscores the overall unreliability of his analysis.

Mr. Braynard’s opinion that 1,043 early and absentee ballots were cast by voters who were illegally registered using a post office box disguised as a residential address is unreliable.

43. Mr. Braynard characterizes the 1,043 individuals identified in this search as “disguising” their true address by using a post office box or commercial facility. He does so without investigating further the situations of the voters who he has identified. I have learned, through my twenty years of research into election administration and learning from election officials, that voters in highly mobile or marginal circumstances are often uncertain about how to properly fill out the forms related to registering to vote. For instance, despite the fact that in Georgia, homeless individuals are instructed to indicate where they “lay their head” on their registration form, doing so may be stigmatizing to that individual. A student who has just graduated and is in between residences might incorrectly believe they can use a P.O. box on their application form. Finally, it is common to find that some voters *do* live in commercial facilities—sometimes in ways that conform to local building codes, and other times not. The fact that 0.1% of Georgia voters might fit into one of these categories is hardly evidence of widespread fraud, or even an intent to evade the law.

44. Furthermore, Mr. Braynard relies on unreliable algorithms to conduct the matching and provides no information about how he confirmed that his matches were precise enough to warrant his conclusions. Therefore, the analysis is unreliable.

Mr. Braynard’s claim that 395 individuals in the State of Georgia voted in multiple states is unreliable.

45. Mr. Braynard’s claim of evidence about 395 individuals from Georgia voting in multiple states is unreliable for at least four reasons.

46. First, Mr. Braynard fails to give a full accounting of the matching protocol used.

47. Second, in Mr. Braynard’s description of the matching process, he claims that he matched “on full exact name and full *exact* date of birth” (¶24; emphasis added). However, as I have already noted (¶29, above), the Georgia voter file only has birth *year*, rather than full birth date. Therefore, Mr. Braynard must either be mis-describing the match he undertook or is using a source of information about birth dates he has not disclosed.

48. Third, as I have already noted (¶30, above) the term “full exact name” is ambiguous, since it can refer to a number of name combinations. The description of the matching criteria with respect to the name field is so imprecise as to make it impossible to judge whether the search is overly broad or overly narrow.

49. Fourth, the matching strategy Mr. Braynard uses has regularly been shown to be worthless as a method for quantifying the degree of double voting. For example, in a 2020 article in the *American Political Science Review*, Sharad Goel and colleagues show that three million pairs of vote records in a national voter registration file obtained from TargetSmart⁹

⁹ TargetSmart is a competitor of L2 in providing so-called national voter lists to political clients. As with L2, TargetSmart augments data from commercial vendors, including imputing birthdates for states, such as Georgia, that do not include the full birthdate in their voter file.

shared first name, last name, and birthdate.¹⁰ However, when more precise indicators are applied to increase the precision of the matches, it was shown that 97% of these seemingly duplicate records were in fact distinct individuals.¹¹

50. Similarly, in 2018 the New Hampshire Secretary of State presented a report to his state's Ballot Law Commission concerning 94,000 people from New Hampshire that shared first name, last name, and birthdates with individuals who voted in other states.¹² After intensive investigation of these cases, which involved 817 hours of investigator time, this list was whittled down by the Secretary of State and Attorney General's offices to 164 voters whose qualifications to vote in New Hampshire had not been verified.

51. Finally, the research by McDonald and Levitt referenced above in footnote 4, demonstrated that a "finding" that 4,397 persons voted more than once in the November 2004 general election in New Jersey, based on a first name + last name + birthdate match, was an artifact of the "birthday problem" paradox—that is, in even a small number of people, it is virtually guaranteed that at least two people will share the same birthday.

52. As both the academic and administrative cases illustrate, the matching strategy employed by Mr. Braynard is significantly overbroad and is worthless for quantifying the degree of double-voting between states.

¹⁰ Sharad Goel, Marc Meredith, Michael Morse, David Rothschild, and Houshmand Shirani-Mehr, "One Person, One Vote: Estimating the Prevalence of Double Voting in U.S. Presidential Elections," *American Political Science Review*, vol. 114, no. 2 (2020), pp. 456 – 469.

¹¹ Most importantly, Goel and colleagues were able to add the last four digits of the Social Security number (SSN4) to the match, which allowed them to achieve nearly perfect precision.

¹² John Distaso, "Exhaustive Investigation Reveals Little Evidence of Possible Voter Fraud in NH," *WMUR*, https://www.wmur.com/article/exhaustive-investigation-reveals-little-evidence-of-possible-voter-fraud-in-nh/20955267?wpmm=1&wpisrc=nl_daily202#.

Mr. Braynard is unqualified to perform and interpret the analysis he reports.

53. Mr. Braynard's educational and professional background provide no evidence that he has the qualification to perform the research he conducted, much less interpret the results. He has no advanced degrees in the social sciences or applied mathematics. He has never published in this field, and by his admission, he has never been admitted as an expert in court to give his opinions in this area.

Geels Report # 1

54. Mr. Geels's first report (Exhibit 3) is primarily a laundry list of trivial (in consequence and number) clerical errors that appear in the Georgia voter and absentee ballot files, none of which provide evidence of widespread voter fraud in the 2020 general election, or in any election, for that matter. The report focuses on inconsistencies in dates that are found in those files. In evaluating these consistencies, it is important to keep two things in mind.

55. First, each file has millions of dates in it, which are the focus of Mr. Geels's report. For instance, in the voter file in my possession (dated September 9, 2020), there are 42,182,851 different dates recording birth year, registration date, date last voted, date added, date changed, and last contact. In the most recent absentee ballot file in my possession (dated November 3, 2020), there are 13,168,985 different dates recording the application date, date ballot was issued, and date ballot was returned. Together, these two files record a total of 55,351,836 dates.

56. By my count, Mr. Geels lists nineteen "observations" from ¶12 to ¶30 about features of the voter files or results of matches with other files. Of these nineteen observations, 11 are stated as simple facts, left to speak for themselves.¹³ Together, these amount to 7,681

¹³ These are the claims in ¶¶ 12, 14 – 23.

voters with anomalous dates. In a voter file of 7,346,219 records, this is 0.1% of all records. In a set of files that over 55 million dates, that is 0.01% of dates. While one cannot excuse clerical errors, it is unreasonable to assume that elections—including election recordkeeping—will be perfect.

57. Nowhere does Mr. Geels suggest how any of these “anomalies” could credibly lead to vote fraud or lack of control, beyond general suspicions. To draw those conclusions, one would need to account for the multiple safeguards in place in Georgia to ensure that only legal voters may cast ballots. The record keeping that is the focus of Mr. Geels’s report is the *end* of the process, not the beginning, or even middle.

58. Most of the anomalies identified by Mr. Geels’s report—even if one credited them—can readily be explained by a more benign assumption, which is that there is a typo in roughly one out of fifteen thousand dates. This is not to excuse administrative mistakes, but rather, to put in context how rare most of the so-called anomalies he identifies are.

59. I do not address the claims that are reference in footnote 13, as they reflect minor recordkeeping errors that are not reflective of fraud, much less *widespread* fraud.

60. I do address a smaller set of claims, in which either Mr. Geels draws explicit conclusions that cannot be borne by the facts, misrepresents Georgia law, or is based on flawed database matching.

61. For the claims discussed below, Mr. Geels provides insufficient details about the datasets he matches and the methodology he uses to match the state voter file, voter history file, absentee ballot file, death certificate file, and inmate file. All files are updated on an ongoing basis. Mr. Giles does not indicate the date when these files were written, which is a fatal deficiency in many of his analyses.

Claim: 305,701 individuals have records indicating that they applied for absentee ballots more than 180 days prior to the general election (i.e., prior to May 6, 2020) (§13).

62. The claim that 305,701 individuals in the absentee ballot file is readily explained by the fact that they were entitled to make this request. Under Georgia law, voters who are physically disabled, 65 years or older, or military or overseas voters may make a “written request to receive an absentee ballot for the primary, primary runoff, election, and election runoff ... without having to ask again by specifically stating such on the written request or absentee application.”¹⁴

63. Ninety percent of those in this group are probably 65 years of age or older. I came to this conclusion by performing a very basic matching analysis, using versions of the voter file and absentee ballot file that I had previously acquired for my own academic research. I matched records from the September-vintage voter file with the November absentee ballot file, using the voter identification number as the linking identifier. This match allowed me to use information from the voter file to calculate the number of ballot requests that were recorded as having arrived before May 6, 2020. This calculation identified 303,114 requests that fit the criteria, which is very similar to Mr. Geels’s 305,701.¹⁵

64. Then, again using the voter ID number as the linking variable, I merged these 303,114 records with the absentee ballot file that recorded voters who requested absentee ballots for the *June* primary. Using the state vote ID number alone, I was able to match 303,097 of

¹⁴ Georgia Secretary of State, Elections Division, *Absentee Voting: A Guide for Registered Voters*, v1, 2014. The current fillable pdf application for official absentee ballot notes, “If you meet one of the described conditions in this section and would like to receive a mail ballot for the rest of the elections cycle without another application, indicate by checking the applicable eligibility requirement.” The categories include elderly (65 years of age or older), disabled, and UOCAVA (military or overseas civilian). <https://sos.ga.gov/admin/files/Absentee%20Ballot%20Fillable%20form%20820.pdf>.

¹⁵ Assuming that Mr. Geels also matched on the voter ID number, there is nothing remarkable about our matching results being different, though very close in number. This difference can easily be accounted for by the fact that the date of the absentee ballot file I was analyzing was different his.

these “early requesters” back to the June absentee ballot file—272,849 (90.0%) of whom were born in 1955 or earlier. It would be reasonable to assume that the 30,248 absentee voters who were not matched are persons with disabilities or UOCAVA voters.

65. I further compared the two “ballot request dates” from the match described in the previous paragraph—the ballot request date from the June file and the one from the November file. Ninety-six percent of those who were 65 or older showed an *identical* application date in both files. This is a strong indication that the date in the November file is simply carried over from a blanket request made to vote by mail in June.

66. The conclusion to be drawn from this initial matching exercise is that Mr. Geels has not uncovered anything remarkable at all, other than over 300,000 people who are over 65, disabled, or living overseas who availed themselves of a feature of Georgia election law that is made known to every voter who requests an absentee ballot.

Claim: The presence of 4 accepted early or mail votes whose matching record in the registration file has a name that is completely different from the name of the voter in the Absentee Early Voter file shows that “Georgia’s voter systems allows a person to vote under another person’s registration.” (¶23)

67. Based on my general knowledge of election administration, Mr. Geels’s inference is incorrect. Because the absentee ballot paper application does not request the voter registration number, the pairing of the paper application with the computerized voter registration list is a manual process. The pattern Mr. Geels describes is clearly due to clerical error.

Claim: 66,247 individuals were identified as having cast a ballot whose records indicate that they were registered to vote prior to their 17th birthday. (¶24)

68. I have been unable to verify this claim directly, because the copy of the Georgia voter file in my possession is dated to September 2, 2020. However, in that file, there are 49,893

voters who are identified as having registered *when* they were 17 and only 3,444 *before* they were 17. These latter cases are most likely data entry errors. And in any case, I suspect that Mr. Geels probably made a mistake calculating this measure.

Claim: The presence of 6,635 individuals who are recorded as voting in 2016 but who are recorded as registering after 2016 indicates that “the registration was manipulated and is unreliable.” (¶25)

69. Again, based simply on the results of an imprecise matching strategy, and no further investigation, Mr. Geels jumps to the conclusion that what is likely a clerical error is based on “manipulation.”

Claim: The presence of 2,024 individuals in the 2020 voter file who have a different birth date than their record in the 2016 voter file indicates that the voter birthdates were unreliable or “manipulated intentionally.”

70. With any dataset as large and dynamic as the Georgia voter file, clerical errors will occur. Sometimes those errors will be because of a maintenance activity (such as updating an address) that pertains to the voter at hand; other times, those errors will occur when a worker mistakenly updates the wrong record. It is because of the imprecision of manual data entry and updating that many states, including Georgia, have adopted automatic voter registration.

71. In addition, errors in voting files do get corrected. Mr. Geels provides no information about the likelihood that these changes were corrections of previous errors.

72. This is the only alleged “finding” in which any of the petitioners’ report-writers has reported reaching out to any of the voters whose records appear to be caught up in these anomalies. Why the particular voter mentioned in ¶26 is mentioned,¹⁶ and not others, is unstated. Indeed Mr. Geels does not report how many other voters he reached out to who

¹⁶ I choose not to mention the name of the voter because I do not wish to subject her to public harassment.

provided information that suggested a more benign explanation for the “fact pattern” he observed.

73. Mr. Geels states that this particular case cannot be explained by clerical error, “as the birthdate should not change, unless there was valid proof that the birthdate in the Registration records was recorded incorrectly.” (¶26) It is true that the birthdate *should not* be changed, but it is easy to imagine that in the process of updating millions of voter registration records each year, a small number might be changed accidentally.

Claim: 134 individuals with birthdates on or before 1915 are recorded as having voted in the November election. (¶27)

74. Mr. Geels reports “researching” the individuals in the voter file who are recorded as having birthdates before 1915. How he “researched” these individuals is unknown. Because I do not have the voter file or voter history file from the November 2020 election, I can not check this claim directly.

75. I examined the September, 2, 2020 version of the voter history file that I have in my possession. However, in my examination of the September 2020-vintage voter file in my possession, I found that 50 registered voters with birthdates before 1915 were reported as last voting in 2020—6 credited to the March primary and 44 in the June primary. Twenty-eight of these are recorded with a birthdate of 1900, which is no doubt a placeholder when a worker cannot enter the correct date. Only three of the remaining 40 voters were first added to the list before 1980.

76. Almost all of the voters I discussed in the previous paragraph no doubt voted in the November general election. If Mr. Geels had even done cursory examination of his search results, he would have discovered the pattern I discovered. I have no doubt that if I were able to

examine the voter file from the November election, the story of the remaining voters would be the same.

Claim: 10,315 deceased individuals cast ballots in the November 3, 2020 election. (¶28)

77. This claim is based on an invalid record linkage strategy that is known to produce numerous false positives. I discussed this issue above at ¶¶19 – 34. However, unlike Mr. Braynard who may have had access to commercially provided birth *dates*, Mr. Geels, by relying for sure on the publicly available voter file, only had access to birth *years*. In ¶50, he describes his match as being done on first name, last name, and birth year. In my analysis of the Georgia voter file, 1,091,659 Georgia voters share an exact match on first name, last name, and birth year. Based on my search of the CDC WONDER dataset, in 2016 (the most recent year for the data), 79,649 deaths occurred among the 7,519,237 Georgia residents who were over the age of 20. (The CDC WONDER dataset does not allow one to perform the search on the population that is 18 and older.) That works out to a crude death rate of 1.06%. If this death rate is applied to the number of Georgians with duplicate names and birth years, we would expect 11,572 registered voters in Georgia to share the same first and last name of another voter in the state who died.

78. Mr. Geels himself agrees that “there may indeed be false positives in the population—for example, due to the match of multiple people with a common name who were also born in the same year or to the omission of a suffix.” My only disagreement with this statement is that it is incorrect to say there *may* be false positives. There are *guaranteed* to be false positives—so many, in fact, that they most likely explain the empirical finding entirely.

Claim: 2,560 individuals who are felons voted (§29)

79. The data linkage strategy described in §51 indicates that Mr. Geels performed the data linkage match by performing matching on first name, last name, and birth year. As I have already noted (see §§19 – 34), this record linkage strategy is guaranteed to produce a result in which the number of false positives vastly exceeds the number of true positives.

80. Mr. Geels apparently agrees with the sentiment, as he writes in §51: “a more reliable match technique could not be used and there may be false positives included in the population.”

81. The fact that Mr. Geels reports that there *may* be false positives in a match such as this, rather than there *will* be false positives, is indicative of his lack of expertise in the fields of election administration and data analytics.

Conclusion of assessment of Mr. Geels’s report # 1

82. Mr. Geels’s first report is an example of “straining at a gnat and swallowing a camel.” He expends much energy in pointing out minor, inconsequential clerical errors in an enormous database while ignoring the most important fact his report reveals: the data are remarkably clean and reliable for the purposes to which they are put.

83. The claim that Mr. Geels makes that involves the largest, and potentially most significant number of voters, is that over 300,000 absentee voters cast ballots after illegally being allowed to request those ballots more than 180 days before the general election. That claim has been revealed to be based on ignorance of Georgia law.

84. Other claims involve smaller numbers of voters and voter records. In considering these errors, it must be remembered that the various data files explored in his report are *tools* that election officials use to manage the election, but they are not the *only* tools that are used. The

databases are used to record the actions undertaken by those officials whose actions are guided by multiple safeguards to ensure that only legal votes are cast. Sometimes the records are updated incorrectly. It is hard to fathom how a record that indicates, for instance, that a ballot was mailed out before the application was received is indicative of fraud. Nor is it possible to understand how a massive database with such small numbers of errors of this sort can be regarded as being “unreliable” or evidence of widespread “manipulation.”

85. Mr. Geels concludes his report by offering his opinion that the data the state and county election officials rely on to administer elections are “either not trustworthy” or indicate “a significant number of fraudulent or invalid votes of a magnitude which calls into question the outcome of the Presidential general election.” His report supports no such conclusion. The most that can be said is that the data files are imperfect—a fact beyond dispute. However, taken as a whole, the evidence that Mr. Geels produces, to the degree it can be credited at all, points toward a conclusion that is 180-degrees away from the conclusion he reaches. That conclusion is that the data *are* trustworthy and do *not* indicate a significant number of fraudulent or invalid votes which call into question the outcome of the general election.

Geels Report # 2

86. Mr. Geels’s second report (Exhibit 10) is an analysis of absentee-ballot rejection rates for the 2016, 2018, and 2020 general election and the 2020 June primary. He documents a decline in the rate of mail-ballot ballot rejections in 2020 compared to the past elections. He implies that past rejection rates are immutable features of Georgia elections, and that action by the state to reduce those rates must reflect negatively on the quality of election administration in the state.

87. Mr. Geels relies on absentee ballot datasets that are available for download from the Secretary of State's website. From my experience using these same files, the statistics he presents in Table 1 are accurate, so far as they report the data from those files.

88. There are two corrections that need to be made, however. First, Mr. Geels does not include the datafile reflecting the 65,878 mail ballots that are associated with the March presidential preference primary. Second, the "spoiled" ballots he includes as "returned" should not be included in this category. While spoiled ballots are indeed "returned," they are not returned *for counting*. They are ballots that have been damaged or otherwise unsuitable to vote on, and thus the voter has requested another one. In the 2020 general election, for instance, of the 4,082 spoiled ballots, 2,865 have the notation "Voter Error" in the "ballot status reason" field. Eighty percent of the ballots marked as spoiled were issued to a voter who was mailed at least two ballots, with the spoiled ballot canceled and the new ballot eligible to be counted.

89. Therefore, Table 1 should be modified so that Row 6 consists only of ballots rejected or accepted. This affects the calculated rejection rates slightly, and barely changes the rejection rates reported by Mr. Geels.

90. More significant is the fact that Mr. Geels, by implication, casts the significant reduction in rejection rates in a nefarious light, when exactly the opposite should be concluded. Furthermore, the rejection rate, while much lower than in past years in Georgia, is now in line with other states. It reflects the result of two salutary developments in Georgia: the establishment of a robust "cure" process and a vigorous public education campaign undertaken by the state and private citizens.

91. To put Georgia's past performance in context, I refer to the report of the Election Administration and Voting Survey, which is issued by the U.S. Election Assistance Commission

after every federal election. The report, and the accompanying jurisdiction-level dataset, are the standard data source used in the fields of election science and election administration to compare states on dimensions such as mail ballot rejection rates.

92. The report for 2016 indicates that Georgia's ballot rejection rate was 5.77%.¹⁷ The overall national rejection rate was 0.77%. Georgia's mail-ballot rejection rate was the highest in the country. For 2018, the Georgia and national rejection rates were 3.10% and 1.42%, respectively. Only ten states had a higher rate than Georgia's in 2018.

93. Georgia's poor performance related to mail-ballot rejection rates drew considerable attention from the press, and ultimately the public. Among other things, it was revealed that counties had widely disparate rejection rates—disparities that could not be attributed to the rejection of fraudulent votes. For instance, the high rejection rate of Gwinnett County was attributed to a poorly designed absentee ballot forms and decisions to set especially stringent standards for accepting absentee ballots.¹⁸ (According to the EAVS data, Gwinnett County's rejection rate in 2018 was 6.9%, compared to the 3.10% statewide rate. The rejection rate across Georgia counties varied from 13.3% in Clay County to no rejections in thirty-two counties.)

94. In response to dissatisfaction with the rejection rate, the General Assembly passed HB 316 in 2019 which, among other things, provided a formal and uniform mechanism by which

¹⁷ U.S. Election Assistance Commission, *The Election Administration and Voting Survey: 2016 Comprehensive Report*, p. 65, https://www.eac.gov/sites/default/files/eac_assets/1/6/2016_EAVS_Comprehensive_Report.pdf; EAC, *The Election Administration and Voting Survey: 2018 Comprehensive Report*, p. 64, https://www.eac.gov/sites/default/files/eac_assets/1/6/2018_EAVS_Report.pdf. Rejection rates reported in the EAVS report will vary somewhat from reports based on raw state reports, because the EAVS survey instrument seeks to reconcile reporting differences across the states, so that an apples-to-apples comparison can be made.

¹⁸ Mark Niesse, "Lawsuit seeks to prevent Georgia absentee ballot rejections," *Atlanta Journal-Constitution*, Nov. 6, 2019, <https://www.ajc.com/news/state--regional-govt--politics/lawsuit-seeks-prevent-georgia-absentee-ballot-rejections/svn2eyAwLAMKFbyday1W4J/>; Ben Nadler, "Lawsuit challenges absentee ballot rejections in Georgia," *Associate Press*, Nov. 7, 2019, <https://newschannel9.com/news/election/lawsuit-challenges-absentee-ballot-rejections-in-georgia>.

absentee voters could “cure” deficiencies on the return envelope of absentee ballots. HB 316 allows voters to “cure a failure to sign the oath, an invalid signature, or missing information by submitting an affidavit to the board of registrars or absentee ballot clerk.”

95. In addition, the state entered into a consent decree concerning the timely notification of voters who had returned mail ballots with deficiencies on the return envelope.

96. Finally, recognizing that millions of voters across the United States would be casting mail ballots for the first time in 2020, on account of concerns related to the COVID-19 pandemic, vigorous efforts were made nationwide to educate voters about how to properly return their ballots, and to return them on time. These efforts were undertaken by election officials, citizen groups, traditional media, and social media.

97. Based on my position as the co-director of the Stanford-MIT Healthy Elections Project beginning in March 2020, I was very aware of these activities, and spoke frequently to reporters about these efforts. I have no reason to believe that these efforts were any less intense in Georgia than in other states.

98. Although official data are still being compiled nationwide, Ballotpedia, a website that closely covers election administration issues, has reported on mail-ballot rejection rates across the country, as the statistics have been made available, and has compared those 2020 rates with those in 2016 and 2018.¹⁹ The table below reports a comparison of rejection rates from 2016 to those in 2020, among states that have reported data from 2020.

¹⁹ Ballotpedia, “Election results, 2020: Analysis of rejected ballots,” Dec. 11, 2020, https://ballotpedia.org/Election_results,_2020:_Analysis_of_rejected_ballots.

Comparison of mail-ballot rejection rates, 2016 and 2020		
State	Rejection rate, 2016	Rejection rate, 2020
Alaska	3.17%	0.87%
Connecticut	1.92%	0.94%
Delaware	1.54%	0.21%
Georgia	6.42%	0.60%
Iowa	0.65%	0.15%
Maine	0.96%	0.89%
Maryland	1.49%	0.63%
Massachusetts	3.30%	1.30%
Michigan	0.49%	0.46%
Nevada	1.60%	0.58%
North Carolina	2.71%	2.47%
Pennsylvania	0.95%	0.28%
South Carolina	0.58%	0.71%
Source: Ballotpedia, https://ballotpedia.org/Election_results,_2020:_Analysis_of_rejected_ballots , Dec. 11, 2020.		

99. With the exception of South Carolina, all states on the chart have seen reductions in rejection rates, many of which have reduced those rates to a fraction of what they were previously. This includes states as diverse in their election administration practices as Alaska, Connecticut, Delaware, Iowa, Maryland, Massachusetts, Nevada, and Pennsylvania.

100. In my twenty years in studying election administration, I have had occasion to discuss issues of ballot rejections and “cure” processes with numerous election administrators.²⁰ Some of these administrators have overseen cure processes for many years. My conclusion from those conversations is that the consensus among election administrators is that almost all rejected absentee ballots occur because voters make honest mistakes, not because election offices have intercepted fraudulent ballots. This has led me to understand that high mail-ballot rejection rates, such as Georgia had prior to 2020, represent a failure of election administration. Any state that seeks to reduce rejections, and does so in a serious, uniform way, should be praised, not

²⁰ One of the reasons I have engaged in these discussions is that the Elections Performance Index (<https://elections.mit.edu/#/data/map>), which I oversee, assesses the election administration performance of states based, in part, on their ballots rejection rates. Given this, it is incumbent upon me to understand the underlying issues behind rejection rates, from the perspective of those who administer absentee ballot laws.

criticized. Mr. Geels's conclusion that high absentee-ballot rejection rates indicates an election administration practice that should be emulated is incorrect.

101. Based on my experience in the field, the formal cure process in Georgia constitutes a "best practice" that others should emulate. To expect otherwise is to suggest government policy should be set to automatically disfranchise legal voters who make their best efforts to comply with election law, but nonetheless commit innocent mistakes.

102. In ¶¶19 and 20 of Mr. Geels's second report, he implies that an *improvement* in the implementation of a law should be receive with opprobrium. It is as if a tax program that was reformed to reduce cheating on taxes was criticized because fewer tax returns in the future contained questionable itemizations.

103. In these paragraphs, Mr. Geels criticizes Georgia because it improved its election administration practices. If Mr. Geels's expectations are accepted, that is, that past policy failures should be accepted as normative, then efforts to make elections more secure and inclusive become impossible.

104. To conclude, Mr. Geels does an unobjectionable job of calculating rejection rates from data files made available to the public by the Georgia Secretary of State. Elements of his analysis reflect a profound lack of knowledge about the policy environment in which absentee ballot policy has developed in Georgia over the past year, and a general lack of knowledge about "best practices" in the field of election administration. His calculations are mostly accurate. His conclusions and inferences are wrong.

Davis Report

105. Mr. Mark Alan Davis provided an affidavit in which he offers observations based on examinations of the Georgia voter file over the past several months. These observations

claim to reveal data anomalies, such as thousands of votes on the Georgia voter rolls who also appear on the NCOA database.

106. This report bears none of the marks of an expert report, nor does Mr. Davis's brief description of his background suggest that he is qualified to opine on issues of database management. He provides no rigorous description of his methodology or data sources. It is impossible to judge the veracity of his claims or to reproduce his analysis independently. His report is not science.

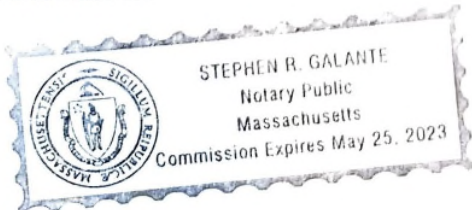
107. To the degree he discusses "hard" results, Mr. Davis reports the results of matches of the Georgia voter file against the NCOA database. He provides no information about when the database was obtained, nor any precise information about how the matches were conducted. The best he can do is conduct matches based on linking combinations of first name + last name + address, for which there may be innumerable duplicate records. Furthermore, Georgia law provides legitimate reasons why someone who has filed an NCOA form, as a part of a temporary move, would still retain his or her residency for the purposes of voting.

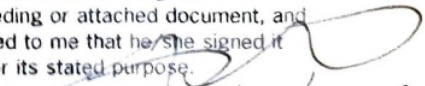
108. Mr. Davis's report should be dismissed because of his lack of expertise and his failure to demonstrate that he has based his opinion on recognized methods of database matching.

109. I declare under penalty of perjury under the laws of the United States of America, and the State of Georgia, that the foregoing is true and correct.


Charles Stewart III

12/14/20



On this 14 day of December 2020 before me STEPHEN R. GALANTE
the undersigned notary public, personally appeared CHARLES STEWART III who proved to me through satisfactory evidence of identification which were M.A.C.I.C.E.N.O. to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she signed it voluntarily for its stated purpose.
Notary Public 
My Commission Expires 05/25/2023

Curriculum Vitae**CHARLES HAINES STEWART III**

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Education

1985	Ph.D., Stanford University.
1983	A.M., Stanford University
1979	B.A., Emory University

Professional experience*Teaching*

1985–1989	Assistant Professor of Political Science
1989–1999	Associate Professor of Political Science
1990–1993	Cecil and Ida Green Career Development Associate Professor of Political Science (3-yr. term)
1999–present	Professor of Political Science
2007–present	Kenan Sahin Distinguished Professor of Political Science
2016–present	Affiliate Faculty, Institute for Data, Systems, and Society

Administrative

2002–2005	Associate Dean of Humanities, Arts, and Social Sciences
2002–present	Co-director, Caltech/MIT Voting Technology Project
2005–2010	Head of the Department of Political Science
2015–present	Director, MIT Election Data and Science Lab

Awards (abbreviated)

1994	Mary Parker Follett Award, for Best Published Essay or Article, 1993-1994, Politics and History Section, American Political Science Association (with Barry Weingast).
1999	Franklin L. Burdette Pi Sigma Alpha Award, for Best Paper Presented at the 1998 Annual Meeting of the American Political Science Association. (“Architect or Tactician? Henry Clay and the Institutional Development of the U.S. House of Representatives”)

- 2002 Jewell-Loehenberg Award, for best article to have appeared in the *Legislative Studies Quarterly*, Legislative Studies Section, American Political Science Association (with Steven Ansolabehere and James M. Snyder, Jr.)
- 2002 Jack Walker Award, honoring an article or published paper of unusual significance and importance to the field, Political Organizations and Parties Section, American Political Science Association (with Steven Ansolabehere and James M. Snyder, Jr.)
- 2011 Elected Fellow, American Academy of Arts and Sciences
- 2013 Patrick J. Fett Award, honoring the best paper on the scientific study of Congress and the Presidency at the previous meeting of the Midwest Political Science Association (“The Value of Committee Assignments in Congress since 1994”)

Grants (abbreviated)

-
- 1991–93 National Science Foundation, “The Development of the Committee System in the House, 1870-1946,” SES-91-12345
- 2003–06 John S. and James L. Knight Foundation, “Internet and Electronic Voting”
- 2005–07 National Science Foundation, “Collaborative Research: U.S. Senate Elections Data Base, 1871–1913” (with Wendy Schiller).
- 2007–10 Pew Charitable Trusts and JEHT Foundation, “The 2008 Survey of the Performance of American Elections”
- 2008–10 Ewing Marion Kauffman Foundation, “Congressional and Executive Staff Seminar”
- 2012–13 Pew Charitable Trusts, “Measuring Elections”
- 2013–15 Pew Charitable Trusts, “Measuring Elections”
- 2013–14 Democracy Fund, “Voting in America: Matching Problems to Solutions”
- 2013–14 William and Flora Hewlett Foundation, “Voting in America: Matching Problems to Solutions”
- 2014–17 Democracy Fund, “Polling Place of the Future”
- 2016–17 Pew Charitable Trusts, “The 2016 Survey of the Performance of American Elections
- 2017–21 William and Flora Hewlett Foundation, “The MIT Election Data and Science Lab”
- 2018–21 Democracy Fund, “The MIT Election Data and Science Lab”
- 2017–18 Carnegie Foundation of New York, Andrew Carnegie Fellow
- 2017–19 Joyce Foundation, “State Election Landscapes”

Publications (abbreviated)

Books

- 2015 *Electing the Senate*. Princeton. University Press (with Wendy Schiller)
- 2014 *Measuring American Elections*. Cambridge University Press (with Barry Burden)
- 2012 *Fighting for the Speakership: The House and the Rise of Party Government*. Princeton University Press (with Jeffery A. Jenkins).
- 2010 *Committees in the U.S. Congress, 1993–2010*. CQ Press (with Garrison Nelson).

- 2002 *Committees in the United States Congress, 1789–1946*, 4 vols. Congressional Quarterly Press (with David Canon and Garrison Nelson).
- 2001 *Analyzing Congress*. W. W. Norton. [2nd edition, 2012]
- 1989 *Budget Reform Politics: The Design of the Appropriations Process in the House, 1865-1921*. Cambridge University Press.

Chapters in edited collections

- 2020 “Polling Place Quality and Access” (with Robert Stein and Christopher Mann) in *The Future of Election Administration*, eds. Mitchell Brown, Bridgett A. King, and Kathleen Hale. Palgrave MacMillan.
- 2020 “The Elections Performance Index: Past, Present, and Future” in *The Future of Election Administration*, eds. Mitchell Brown, Bridgett A. King, and Kathleen Hale. Palgrave MacMillan.
- 2017 “Election Administration in 2016: A Tale of Two Cities” (with Terry Susan Fine) in *Conventional Wisdom, Parties, and Broken Barriers in the 2016 Election*, eds. Jennifer C. Lucas, Christopher J. Galdieri, and Tauna Starbuck Sisco.
- 2014 “Measuring American Elections” in *Measuring American Elections*, eds. Barry C. Burden and Charles Stewart III.
- 2014 “The Performance of Election Machines and the Decline of Residual Votes in the U.S.” in *Measuring American Elections*, eds. Barry C. Burden and Charles Stewart III.
- 2014 “Understanding Voter Attitudes toward Election Fraud Across the United States.” (With Thad E. Hall) in *Advancing Electoral Integrity*, eds. Pippa Norris, Richard W. Frank, and Ferran Martinez i Coma.
- 2014 “What Hath HAVA Wrought? Consequences, Intended and Unintended, of the Post-*Bush v. Gore* Reforms,” in *Bush v. Gore Ten Years Later*, eds. R. Michael Alvarez and Bernard Grofman.
- 2011 “Congressional Committees in a Partisan Era: The End of Institutionalization as We Know It?” in *New Directions in Congressional Politics*, ed. Jamie LI. Carson, Routledge.
- 2008 “Function follows Form: Voting Technology and the Law,” in *America Votes!*, ed. Benjamin E. Griffith American Bar Association.
- 2008 “Improving the Measurement of Election System Performance in the United States” in *Mobilizing Democracy: A Comparative Perspective on Institutional Barriers and Political Obstacles*, eds. Margaret Levi, James Johnson, Jack Knight, and Susan Stokes, Russell Sage.
- 2006 “Architect or Tactician? Henry Clay and the Institutional Development of the U.S. House of Representatives” in *Process, Party, and Policy Making: New Advances in the Study of the History of Congress*, eds David W. Brady and Mathew D. McCubbins, Stanford University Press.
- 2005 “Congress in the Constitutional System,” in *Institutions of Democracy: The Legislative Branch*, ed. Sarah Binder and Paul Quirk, Oxford University Press.
- 2002 “The Evolution of the Committee System in the U.S. Senate” (with David Canon), in *Senate Exceptionalism*, ed., Bruce Oppenheimer, Ohio University Press.
- 2002 “Order from Chaos: The Transformation of the Committee System in the House, 1810–1822,” in *Party, Process, and Political Change in Congress: New Perspectives on the History of Congress*, eds. David Brady and Mathew McCubbins, Stanford University Press.
- 2001 “The Evolution of the Committee System in Congress,” in *Congress Reconsidered*, 7th edition, eds., Lawrence Dodd and Bruce I. Oppenheimer. Congressional Quarterly Press.
- 1992 “Committees from Randall to Clark,” in *The Atomistic Congress*, eds. Ron Peters and Allen Hertzke. M.E. Sharpe.
- 1992 “Responsiveness in the Upper Chamber: The Constitution and the Institutional Development of the U.S. Senate,” in *The Constitution and the American Political Process*, ed. Peter Nardulli. University of Illinois Press.
- 1991 “Lessons from the Post-Civil War Era,” in *Causes and Consequences of Divided Government*, eds. Gary Cox and Samuel Kernell. Westview Press.

- 1991 “Tax Reform in the 1980s,” in *Politics and Economics in the 1980s*, eds. Alberto Alesina and Geoffrey Carliner. University of Chicago Press, pp. 143-170.

Articles in refereed journals (Abbreviated)

- 2020 “Reconsidering Lost Votes by Mail” *Harvard Review of Data Science*.
- 2020 “Abstention, Protest, and Residual Votes in the 2016 Election,” (with R. Michael Alvarez, Stephen Pettigrew, and Cameron Wimpy) *Social Science Quarterly*. 101(2): 925–939.
<https://doi.org/10.1111/ssqu.12757>.
- 2020 “Protecting the Perilous Path of Election Returns: From the Precinct to the News,” (with Stephen Pettigrew) *Ohio State Technology Law Journal* 2020: 588–638.
- 2020 “Explaining the Blue Shift in Election Canvassing,” (with Edward B. Foley) *Journal of Political Institutions and Political Economy* 1(2): 239–265. <http://dx.doi.org/10.1561/113.00000010>.
- 2020 “The Relationship of Public Health with Continued Shifting of Party Voting in the United States,” (with Jason H. Wasfy, Emma W. Healy, and Jinghan Cui) *Social Science & Medicine* 252(May 2020): 112921. <https://doi.org/10.1016/j.socscimed.2020.112921>.
- 2019 “Causal Inference and American Political Development: The Case of the Gag Rule,” (with Jeffery A. Jenkins) *Public Choice*. <https://doi.org/10.1007/s11127-019-00754-9>.
- 2019 “Learning from Each Other: Causal Inference and American Political Development,” (with Jeffery A. Jenkins and Nolan McCarty) *Public Choice*. <https://doi.org/10.1007/s11127-019-00728-x>.
- 2019 “Waiting to Vote in the 2016 Presidential Election: Evidence from a Multi-county Study,” (with Robert M. Stein, et al) *Political Research Quarterly*.
<https://doi.org/10.1177%2F1065912919832374>.
- 2019 “Voter ID Laws: A View from the Public,” (with Paul Gronke, et al) *Social Science Quarterly* 100(1): 215–232.
- 2018 “The Deinstitutionalization (?) of the House of Representatives: Reflections on Nelson Polsby’s “The Institutionalization of the U.S. House of Representatives” at Fifty” (with Jeffery A. Jenkins) *Studies in American Political Development* 32(2): 166–187.
- 2018 “Pedagogical Value of Polling-Place Observation by Students” (with Christopher B. Mann, et al) *PS: Political Science & Politics* 51(4): 831–837.
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