EXPERT REPORT OF JESSE T. RICHMAN

Mi Familia Vota v. Fontes, et al.

And Consolidated Cases

Cas No. 2:22-cv-00509-SRB (Lead Case)

United States District Court

District of Arizona

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Background and Qualifications

I currently serve as Associate Professor of Political Science and International Studies at Old Dominion University. However, in accordance with University policy, in this report I write as an individual, and the opinions I offer should in no way be interpreted as speaking for Old Dominion University.

I hold a PHD in Political Science from Carnegie Mellon University, and came to Old Dominion University in 2006 after teaching at Vanderbilt University. I teach courses in American Politics and research methods for the Department of Political Science and Geography, and also teach Game Theory, Statistics, and Research Methods for the Graduate Program in International Studies.

I am a scholar of American Politics and political methodology. I have authored and co-authored refereed articles on American politics which have appeared in numerous scholarly journals including *American Political Science Review, Journal of Politics, Legislative Studies Quarterly, State Politics and Policy Quarterly, and Electoral Studies*. In total I have published 25 peer reviewed articles, and two books. Among other articles, I am the author of a widely cited study attempting to estimate the prevalence of non-citizen registration and voting in the United States.

I served as an American Political Science Association Congressional Fellow from 2011-2012 and completed a Fulbright grant in Fall 2019 and another grant in Summer 2022. I have served as Director of the Social Science Research Center at Old Dominion University.

I have testified or submitted expert reports or declarations in several election related cases, including cases in Virginia, Missouri, and Kansas. None of these cases occurred within the last four years.

I strive for neutrality and for adherence to the facts wherever those take me. For example, when contacted by reporters about my coauthored article on non-citizen voting in *Electoral Studies* I shared with them both my article and information about other scholars' work that critiqued aspects of that work, and my working paper responding to those critiques. I have publicly criticized those who make excessive claims about the prevalence of non-citizen voting. I have also publicly criticized those who pretend it doesn't exist. My goal in my work in this area, as in my broader work as a political scientist, has been to responsibly sift the range of available evidence to come to appropriate and reasoned conclusions. I attempt to do that in this case.

This report is based upon the information available for my review and analysis. I reserve the right to update my report and opinions upon review of any additional databases, documents, or other information that I may gain access to.

For my work as an expert in this case I am compensated at a rate of $340/hour. My compensation is not contingent on the substance of my opinions or on the outcome of this case.

My Assignment

Initially I was asked to focus on evaluating the list matching done by McDonald in his expert report. I subsequently was asked to discuss some other areas as well. Defendant's lawyers asked me to review and where relevant critique the expert reports submitted by plaintiff's experts Michael P. McDonald and Lorraine C. Minnite. The report by Minnite had three sections, the first focused on the prevalence of voter fraud, the second focused on H.B. 2492 and H.B. 2243, and the third focused on the question of what it would take to restore confidence in American elections. The expert report by McDonald focused on implementation of DPOC requirements and list matching in Arizona. My opinion is therefore divided into two main sections, the first a critique of the McDonald report, and the second a critique of the Minnite report.

In this document I highlight some of the major limitations of those reports which make both imperfect and flawed guides. I attempt to offer methodological and analytical corrections that can facilitate a more accurate appraisal of what the evidence does and does not indicate.

Part 1: Critique of McDonald Report

1.1. Critique of McDonald Section 2: Summary of Findings

Here I sum up my findings concerning each section of McDonald's report, by focusing on the problems with each of his claims as listed in "Section 2" which summarizes his findings.

1. I find that on the whole Arizona has created a robust process for citizenship verification through HB 2243 and HB 2492 that leverages multiple databases, allowing each to compensate for the limitations of the others (as opposed to the claim of "multiple failure points" by McDonald p. 3). It is designed in a way that will minimize burdens on those who are in fact eligible to vote, and there is no convincing evidence that there are disproportionate burdens placed upon *eligible voters* who are people of color.
2. McDonald's claims of disproportionate impact on some groups of citizens based upon analyses of "federal-only voters" ignore the possibility that such voters are non-citizens, and this negates the ability to make claims that *citizens* among this group are disproportionately drawn from particular age and demographic groups.
3. McDonald's claims concerning database matching ignore the way that the revised rules in HB 2243 and HB 2492 create a set of intersecting database checks. In fact, bringing more databases to bear can provide vital opportunities for one database to correct the limitations of the others. Therefore, instead of creating a system of "several failure points" the system has the potential to provide a more robust and accurate check than would be possible with a less extensive system.
4. HB 2243 and HB 2492 do not, as McDonald claims "criminalize ordinary administrative procedures, such as registering an **eligible person** to vote" (p. 4 emphasis added). Instead, they seek to deter knowingly registering an **ineligible** person to vote: a non-citizen.

5. HB 2243 is criticized by McDonald for failing to define what constitutes "reason to believe" a registrant is not a US citizen. The analysis in this area is flawed for two reasons. First, the claims of varying interpretations are often overdrawn. Second, it ignores the fact that reason to believe is a legal term with a clear meaning, one that will, if necessary, doubtless be defined in detail through case law by the courts in this case and others as appropriate.

6. McDonald's analysis of the way county officials are already implementing DPOC provisions is flawed for several reasons.
   a. It provides no statistical tests for the claimed outliers,
   b. it ignores key omitted variables in the analysis such as the prevalence of non-citizens in the county.
   c. Key claims made in the analysis cannot be replicated.

   As such, the analysis cannot be relied upon to demonstrate unequal application.

7. McDonald's criticism of the place of birth data in the Arizona voter file ignores the potential value of this data in conjunction with the vital records data. It also ignores the several other uses of this data that are outlined in the election manual.

1.2. Critique of McDonald Section 3.1: Policies prior to enactment of HB 2492 and HB 2243.

8. I find that the current state practice concerning DPOC discussed by McDonald in Section 3.1. provides important protections of the right to vote, but does have certain limitations concerning its capacity to identify illegally registering non-citizens. In particular, non-citizens for whom an ADOT credential record cannot be identified may be registered to vote as federal only voters. In addition, database entry or matching errors could allow non-citizens to register as full active voters.

9. I analyze the system here in terms of the system process and potential failure points. Analysis of a system to identify its strengths, limitations, and failure points can provide a useful starting point for understanding the ways it functions well, and the ways it could be improved.

10. The current practice has important fail-safes concerning situations in which a matching error with the ADOT credential record leads to incorrect identification of a citizen as a non-citizen. McDonald writes that:

   > "If a registrant does not provide DPOC with a state or federal form, and the Secretary of State's office identifies an ADOT credential record indicating the registrant is a noncitizen, then election officials mail the registrant a request for DPOC. If the registrant does not respond, county recorders determine the individual is not eligible to register." (p. 5)

   Thus, no individual is removed from the voter rolls without being contacted with a request that they provide DPOC.

1.2.1 Fixing Limitations of Current System

11. There is no similar fail safe when it comes to an individual who is erroneously identified as having citizenship (despite being a non-citizen) through an incorrect match to the ADOT records or an error in the ADOT records. Such individuals will be registered to vote, and no subsequent examination will take place. The revised system will include some additional checks.

12. Another limitation of the current practice is that as described by McDonald there is little effort to obtain DPOC from individuals for whom a match is not obtained with the ADOT database. Instead, they are placed in the federal-only list. This has potential problems which are addressed in the new legislation.

13. There may also be other databases that could demonstrate that the individual is in fact a citizen. In the absence of a repeated examination, or a request for DPOC, or searching of these additional databases, such an individual may remain restricted to the "federal-only" ballot when they could be casting a full ballot. The updated laws respond to this issue in three important ways. First, (a) by increasing the number of databases examined to try to identify DPOC, second by requesting DPOC, and third by engaging in an ongoing process of matching the files. Thus, to the extent that there are individuals under current practice who are restricted to more limited election participation, the revised system appears to me more likely to achieve authorization for full participation for them.

    a. The number of databases examined by registrars is expanded from the ADOT and SAVE database to include several others where practicable. This expanded search will help assure that citizens are identified (A.R.S. § 16-121.01(D)). In addition to ADOT and SAVE matches these include: social security administration databases; the national association for public health statistics and information systems electronic verification of vital events system. And finally "Any other state, city, town, county or federal database and any other database relating to voter registration" the county has access to. This expansion in the number of databases, where practicable, provides additional opportunities to obtain proof of citizenship which will increase the likelihood of finding DPOC, as I discuss in more detail below.

    b. Individuals for whom proof of citizenship cannot be obtained across all of these matching efforts will be asked to provide DPOC, thus providing an additional opportunity to establish full active voter status – a final fail-safe.

    c. HB 2243 "essentially applies similar database matching provisions… to search for citizenship status of all registered voters on a monthly basis." (McDonald p. 9). Whether this has the benefits I speculate about here will depend upon implementation, but this process will potentially have the benefit of identifying individuals who are registered but with a more limited status due to lack of DPOC who can be shifted to full status. This move if it happens will have two benefits. One is that it will move such individuals to the appropriate status. The second is that it will reduce the number of individuals with a registration status that indicates lack of provided DPOC which I believe will improve public confidence in Arizona elections.

14. The other problem with the current system that is partially addressed in the new legislation is that an individual may be placed on the "Federal-only" list despite being a non-citizen. McDonald's discussion makes clear that this can happen under the current system if an individual registers without providing a drivers license number, or if a corrupted number is provided that cannot be matched. As I discuss below, McDonald's discussion of the drivers license number match with the "Federal-only" list is misleading because he does not acknowledge the large number of individuals on this list with faulty numbers. This could allow a non-citizen to cast ballots despite being illegally on the voter list. The updated legislation partially addresses this issue through a broader set of checks both at the registration stage and on an ongoing basis.

1.3 Critique of McDonald Section 4: Database errors exaggerated.

15. McDonald quotes on page 8 from the deposition of Eric Jorgensen concerning the accuracy of the ADOT database. McDonald's discussion of errors in the ADOT database ignores a critical limitation of the weekly check data being discussed.

> "As stated in the ADOT Responses to Interrogatories[1] "The QA results are not detailed enough to determine a specific error rate for incorrect authorized presence status as errors are not recorded to a specific data field level." Thus, the data cited cannot be relied upon to provide an accurate estimate of the error rate in this data."

The quote from the deposition transcript is misleading as it ignores the further questioning which revealed that the typical errors were minor ones.

> When we -- when we look at the MAX system itself and the errors, typically the types of errors that we find is that something wasn't properly scanned in or something along those lines.· Typically, it's not something that would be -- that -- that would invalidate the data that is in the system." (Deposition of Arizona Department of Transportation represented by Eric Jorgensen, August 11, 2023, Final, p 191, 11-17.

Taken as a whole, the transcript indicates much more reliability that the limited quote used by McDonald suggests.

16. There are various opportunities to assess the accuracy of the ADOT files. One of these specifically focusses on changes in recorded citizenship status: a key variable in the database for checks of citizenship.

17. One of the files I was provided with[2] summarizes changes in citizenship status in the ADOT database. If the database contains frequent errors concerning this variable, then we should see a substantial number of changes from a US citizenship status category as the "Prior Authorized Presence Status" to a non-citizen category subsequently. In a database with 40,293 entries there were 22 instances of an inconsistent change in status. All such changes

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[1] 2023-07-14 Mi Familia Vota v. Fontes (22cv509-SRB) ADOT Responses to Interrogatories.pdf
[2] ADOT001411_changeincitstatusrecords.csv

from citizen to non-citizen status should represent an inaccuracy in the database, as it is unlikely that an individual who has renounced their US citizenship would nonetheless update information related to a US driver license. Thus, this data can be used to estimate the reliability of the database. If the database is rife with error, we should see this kind of error occurring frequently.

18. Overall, this indicates a great deal of reliability in the coding of Authorized Presence Status by ADOT. There are several million entries in the ADOT database with a US citizenship status coding. Only 22 of these have been found to be in error.

19. Another potentially misleading discussion of database error occurs in the discussion of the SSA's HAVV lookup tool. McDonald cites an inspector general's report from 2009 which appears to be based on data from prior years. That is, this is a report that is now quite old. McDonald does not discuss whether improvements have been made to the database in the intervening years, potentially in response to that report.

1.3.1. Errors could lead to non-citizen registration

20. Furthermore, McDonald doesn't acknowledge that errors could have multiple implications including facilitating registration by a non-citizen to vote if the ADOT database was in error concerning the individual's citizenship status, or if an inaccurate soft-match led an election official to erroneously register a non-citizen to vote. I will present evidence below that is consistent with this pattern in my critique of McDonald's section 4.3.9: ADOT non-citizens on active voter roll.

1.3.2. Using multiple databases typically increases reliability

21. Measurement reliability is a longstanding methodological interest in social science research. One of the standard solutions to this problem is to increase the number of measurements taken. For instance, to measure a psychological construct, psychometricians frequently use several variables to construct a scale in order to increase the reliability and validity of their measurements. This implies that use of multiple databases, as developed in HB 2243 and HB 2492, is likely one of the strengths of the legislation. As with multiple measurements in any other context, the use of multiple measurements here will tend to increase the accuracy of the determinations made by election officials by providing them with more information.

22. Indeed, McDonald's discussion of the limitations of the different databases ignores the ways in which the different databases can complement each other, thereby providing for a more complete picture of citizenship status than any single database could alone. If effectively combined, the use of multiple databases can help ensure the accuracy of assessment of citizenship status while minimizing the frequency with which the fail-safe of requesting that the registrant provide DPOC need be utilized.

23. Consider for instance the combination of the SAVE database and the ADOT database. For individuals who have long been US citizens, the ADOT database will typically have up to

date information on citizenship status. However, as McDonald notes, the major limitation of the ADOT database is that the database isn't necessarily updated at the time that an individual becomes a US citizen (updating will not be required until expiration of the license, although it can be done voluntarily before that time). This gap is largely filled by the SAVE database. Although the SAVE database lacks information about many undocumented immigrants and many US citizens, it does have information about legal immigrants including information about whether individuals have naturalized and become US citizens (information that can be further interrogated through the process of requesting additional checks as discussed below.) Thus, the combination of the SAVE and ADOT databases can allow election officials to minimize the need to request DPOC, as each database can compensate for the limitations of the other.

24. More broadly, use of additional databases will ameliorate concerns about database errors preventing matches. To the extent that each database has useful information related to provision of DPOC, the combination of utilizing all four databases as described in in HB 2243 and HB 2492 dramatically reduces the odds of a failure to find DPOC through the databases.

25. As a professor at Old Dominion University I am involved in the interdisciplinary modeling and simulation program. I think it can be helpful to use simulation and calculation to visualize and quantify potential consequences of election system design choices. To quantify this claim about reduced error, let's assume that a citizen has data in four databases which provides evidence sufficient for DPOC. However, there is some probability of data entry error that could lead to matching failure in each database. Table 1 provides the probabilities of a failure to match across all four databases, as a function of the probability of a matching failure in the databases. The table uses the multiplication rule of probability to calculate the probability of four failures occurring simultaneously. This is the product of each of the probabilities of failure, provided the errors occur independently (as seems reasonable for failures due to data entry error as discussed extensively by McDonald).

Table 1: Simulation of How Use of Four Databases Can Reduce Error

Probability of error in one database	Probability of error in four databases	Percentage of errors eliminated by using multiple databases
0.01	0.00000001	99.9999%
0.02	0.00000016	99.9992%
0.03	0.00000081	99.9973%
0.04	0.00000256	99.9936%
0.05	0.00000625	99.9875%

26. The table above shows just how dramatically using multiple databases can reduce the incidence of error caused by errors in the databases. The right column shows that **for all of the probabilities of error in one database that are examined, utilization of four**

databases reduces the error by more than 99.987 percent. This speaks to the wisdom of utilizing more than one database, as HB 2243 and HB 2492 propose to do, and the increased risk of error that would be encountered if this part of the legislation was struck down.

27. The analysis above can be generalized using the full multiplicative rule of probability. So long as failure to match in one database does not guarantee failure to match in the others, additional databases *always* reduce the risk that a failure to match will occur.

1.3.3. Full utilization of SAVE

28. McDonald makes what appears to be a valid point on page 39 about the failure to fully utilize the SAVE system in accord with the MOA. The full set of checks in SAVE should be used more extensively, if they are not. But limited use could be legitimate, and the statements may merely reflect confusion concerning terminology. Hopefully by bringing this discrepancy to light McDonald will have contributed to improving awareness of the appropriate process among Arizona election officials so that they can utilize the SAVE system to the maximum extent possible. In particular, he cites a deposition by one county election official who seemed unaware of the opportunity to conduct additional checks using SAVE.

29. That said, there is conflicting testimony about the need to specifically request additional checks: in at least some instances those checks appear to be triggered automatically. In his deposition, Mr. Jorgensen indicated that the process of more extensive search would be triggered automatically, with state officials needing to merely check back later after the more extensive checks were run. (Jorgensen Depo. p. 46:17-21)

> "And it's not something that we do. It's something that the feds do, and then we have to go back and check it. And when it says it's final, that's when we will accept it, whether it was on the first one or after it went through additional review."

30. McDonald offers no analysis of the outcomes of the 2,892 SAVE searches mentioned. It is possible that in many or even all cases, voter registration officials were able to identify citizenship status without need for additional information from SAVE: there are legitimate reasons why election officials could have failed to provide additional information to SAVE including finding DPOC through a different means.

1.3.4. Critique of McDonald 4.3.1 Why ADOT monthly database extract is not utilized

31. McDonald criticizes the current lack of utilization of the ADOT monthly database extract. This lack of use makes sense given that the implementation of laws mandating the provision of that database are currently being litigated. In this case. In all, this is a puzzling critique.

1.3.5. Critique of McDonald Section 4.3.9: ADOT non-citizens on active voter roll

32. In Section 4.3.9 McDonald asserts that one can measure "the reliability of the ADOT credential database" by examining "whether it identifies as noncitizens any voters whom the AVID system identifies as full ballot voters" (pp 28-29). I replicated this analysis. But then I took it farther. McDonald assumes that all of these registrations are valid: that none are in

fact by non-citizens. While this is possible, it is also possible that updates to the ADOT database have created an opportunity to identify non-citizens who were registered in error. Indeed, the pattern of evidence suggests that a substantial number of the individuals identified by McDonald may fall into this category.

33. I began by replicating McDonald's matching of the ADOT and AVID datafiles. My matching largely paralleled McDonald's. I was able to match a total of 6,084 individuals identified as active voters who were not listed with a "Federal-only" status and had a citizen status listed in the ADOT database indicating that they were non-citizens, versus a match of 6,084 noted in McDonald's report. This was one of the few matching analyses done by McDonald which I was able to verify fully, as will be discussed below.

34. Before going further, I pause to note that even if one was to stipulate that all such matches were a sign of error in the ADOT database (and none a sign of error in the AVID database) the error probability this implies for the ADOT database is less than 0.0016.

35. However, this is based upon an extreme assumption: that one database (AVID) is always accurate and the other (ADOT's MAX) is always in error when they disagree. McDonald assumes that these matches are exclusively a sign of error (unreliability) in the ADOT database. But this is only one of several possibilities. They could, for instance, reflect errors which led to inclusion of non-citizens in the AVID database as registered voters. As will be discussed at later points in my analysis as well, McDonald's report tends to ignore alternative explanations. As is well known in social science methodology, ignoring alternative explanations or omitting variables can lead to biased results.

36. Other possible explanations include that some of these could be false matches. It is also possible that errors in numerical entry of the driver license number generated the match, in which case further investigation on the part of voter registrars would likely find discrepancies between the names in the two databases as these are among the fields reported through the API.

37. I focus here on the possible presence of non-citizens. This is an alternate theory that the disagreement between the databases has a different cause. Specifically, it could reflect errors on the part of voter registrars who may have allowed individuals to register to vote when they were not in fact citizens. It is precisely this type of error that the process of re-checking the lists contemplated by HB 2243 would reconcile, potentially removing non-citizens from the voter rolls, and ideally updating the ADOT databases as well when they are in error.

38. A key data point for this analysis is the issue date of the license or identification credential. McDonald writes of this date in his expert report:

The SOS office instructs county recorders that ADOT's citizenship information indicates only a registrant's citizenship status "**at the time of issuance**" (2019 Elections Manual, p. 4 emphasis added) of an ADOT customer record. (McDonald report p. 20)

What does this mean? While the ADOT MAX legal presence information is not always up to date, it does have a specific date tied to it: the issue date of the credential by ADOT.

39. Thus, we can divide the registered voters with an ADOT identifier indicating that they are not citizens into two groups: those for whom non-citizen status was verified with ADOT only prior to voter registration, and those for whom non-citizen status appears[3] to have been verified with ADOT *after* voter registration. As I will discuss below, the latter group appear to have indicated to the state they were non-citizens *after* they registered to vote. This excludes the primary source of unreliability in the ADOT data highlighted by McDonald.

40. Among the ADOT-identified non-citizens with a new or renewed drivers license issued after they registered to vote, we know that ADOT processes would have required the individual to provide proof of lawful presence in order to obtain the new or renewed drivers license. In the deposition of the Arizona Department of Transportation representative Eric Jorgensen this issue was discussed several times. For instance:

Q: … is there any data available through the API that allows the secretary or county recorder to compare the date of the documentation of authorized presence aside from U.S. citizenship with the date of the voter registration application?

A. Because we only collect documentation as part of a credentialing event, that date of the issuance would be the date that we collected the authorized presence documentation. ((Jorgensen depo p. 124 17-25)

And then again on the next page

Q … The collection date of the authorized presence document is not a different one than the credential issuance date?

A. Correct.

Thus, the authorized presence field for citizenship status will have been updated at the date the ADOT credential was issued, and it will generally be accurate for that date.

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[3] I have put through inquiries with ADOT to explore in more detail the possibilities discussed on pages 124-127 of the ADOT Jorgensen deposition: whether the issue date is adjusted when a non-citizen or anyone else updates a credential (e.g. by adding a new picture) without obtaining a new credential or renewing the credential. I intend to update my report when ADOT responds.

41. It would also typically not be possible for a naturalized citizen to submit documents from prior to naturalizing as proof of legal presence. One reasons for this is that the expiry date of the credential for a non-citizen is typically linked to the expiry date of their legal presence document. A license renewal would therefore not be possible using the old document. Arizona Department of Transportation representative Eric Jorgensen (Jorgensen depo. p. 34, 19-23) said:

> If their license is expiring because their proof of authorized presence is expiring, they're going to have to show something, and if they don't have another piece, then the only thing you could do was show they naturalized, the proof of naturalization.

42. Furthermore, according to Jorgensen, even if the document had not expired it would not typically be possible for an individual who has naturalized and become a US citizen to present as their legal presence document a document that no longer accurately represents their immigration status because it would fail the SAVE check which is run on such documents. (Jorgensen depo. p. 48 11-15)

> SAVE would -- we use SAVE to validate the document that they present. So if they're presenting a document and SAVE cannot validate that document because it's no longer valid, then we wouldn't issue.

Therefore if, after naturalizing, an individual presented as proof of legal presence their old "green card" or some other visa document indicating immigrant non-citizen status, even one that had no expiry date, that document would typically be rejected by the SAVE check that is typically run by ADOT when issuing a drivers license or renewing the license.

43. Jorgensen also made clear that SAVE is used not only for issuance of a new license or ID document, but "It's also used for renewal." (Jorgensen depo. p. 48, 2-3) This issue was returned to in the deposition again about 15 pages later in the transcript. (Jorgenson depo. 63 4-7)
> Q. And would a person who showed a permanent resident identification originally have to show proof of permanent residence again upon renewal?
> A. Yes.

44. It is also clear that the issue date for a renewed credential is tied to the SAVE check. (Jorgensen depo. 136 18-19) "So until there's an issuance, until we have a SAVE return, we don't do a new issuance." Thus, the new issuance will not occur until after the SAVE check has been passed. Furthermore, as Jorgensen noted (Jorgensen Depo. p. 46:17-21) ADOT waits for the final version of the SAVE check after any additional searches are conducted.

45. All of the foregoing is to say that if an ADOT assessment of non-citizenship happened after voter registration, then this is reasonably strong evidence that the individual registered to vote while a non-citizen, suggesting errors on the part of voter registrars, or perhaps the

limitations of earlier ADOT records that were then updated and corrected. So far as I have been able to ascertain, all non-citizens applying for a new or renewed credential would have their document run through the SAVE system, and the license or ID card would not be issued (the issue date) until SAVE completed a final set of checks. If on the other hand ADOT assessment of citizenship happened prior to voter registration, then it is more possible (but not certain) that the non-citizen naturalized before registering to vote, with the ADOT data out of date.

46. That said, with the currently available information I cannot exclude the possibility that a recently naturalized voter who obtains a replacement driver's license without REAL ID features may appear in the ADOT data as having been issued a non-citizen credential after registering to vote. I therefore reserve the right to update this report as further information becomes available.

Table 2. Date of Registration and Date of ADOT Non-Citizen Status Assessment

Timing of Voter Registration Versus ADOT License Date	Frequency	Percent	As a share of voting age non-citizens in Arizona	Binomial (exact) confidence interval
License established or renewed after voter registration.	2,331	38.3%	0.52%	0.50% to 0.54%
License established or renewed before voter registration.	3,753	61.7%		
Total	6,084	100%	1.35%	1.32% to 1.39%

47. Table 2 shows that in 2,331 cases, the registration to vote by an active voter who the ADOT database indicates is a non-citizen happened *before* the last contact with ADOT at which non-citizen status was documented with an original of the appropriate document and verified with SAVE: the license or ID issue date. This is a reasonably strong indication that these individuals may have registered to vote while not in fact a citizen. As such, it indicates the reasonable grounds for the additional provisions of the new Arizona laws which would mandate follow-up with these individuals. By requiring a double-check of the citizenship status of individuals who appear to have informed ADOT post-voter-registration that they are not a citizen, the law will potentially help reduce the incidence of non-citizen registration in the state and/or increase public confidence in the election system.

48. For the remaining 3,753 cases, the evidence is ambiguous. The question of whether these individuals are naturalized US citizens is, however, one which could probably in most cases be effectively adjudicated by use of the SAVE database. The SAVE dataset has high-quality coverage of naturalized citizens, particularly naturalized citizens who might have naturalized

some time ago. This points once again to the utility and importance of the multiple sources of information election officials are called to examine in HB 2492 and HB 2243, as I discussed above.

49. The 2,331 actively registered individuals who updated their license with ADOT *after* they registered to vote and are identified by ADOT as non-citizens represent roughly half of a percent of the overall non-citizen voting age population in Arizona (0.52%). This will be discussed further below.

50. The key point is that McDonald assumes in his error analysis in section 4.3.9 that all errors are in one database and none are in the other database. This is a very strong assumption, and further analysis casts significant doubt on it.

1.3.5.1. Analysis of geographic distribution of AVID registered ADOT non-citizens

51. When there are competing explanations for a phenomenon, (as in the example just discussed above) social science methodology typically calls upon researchers to attempt to evaluate the extent of empirical support for hypotheses derived from each explanation. As in all science, we take each explanation, form hypotheses from it, and evaluate whether these hypotheses have empirical support.

52. McDonald makes no attempt to engage in such testing. However, the data available does allow us to frame competing hypotheses and to test them. Briefly, there are three hypotheses we might consider, each associated with a different explanation of the presence of 6084 individuals on the active voter file who the ADOT database indicates are non-citizens.

53. The first hypothesis is that this reflects the presence of random error. Some of McDonald's arguments would seem to suggest that this is what he believes. The implication is that there should be no association whatsoever between other variables and this variable – it represents random errors in the database. We can formalize this as follows: Hypothesis 1 (McDonald) we will not be able to detect any statistically significant predictors when we run a model predicting whether a respondent will have an ADOT code indicating that they are a non-citizen.

54. The second hypothesis is that this reflects the presence of naturalized citizens. McDonald argued in various places in his report that ADOT data is likely to be in error specifically concerning this group. This argument would suggest the hypothesis that *active voters should be more likely to be coded as non-citizens in the ADOT data if they live in a county with a larger portion of the population composed of naturalized citizens.*

55. The third hypothesis is that this reflects the presence of non-citizens. As I have noted, the confirmation of citizenship status by ADOT AFTER a substantial fraction of these individuals registered to vote provides evidence for this claim. This suggests the hypothesis

that *active voters should be more likely to be coded as non-citizens in the ADOT data if they live in a county with a larger portion of the population composed of non-citizens.*

56. Table 3 below reports the results of a logit model testing these hypotheses for all active voters for whom a citizenship status could be ascertained based upon ADOT codes. The results provide strong support for hypothesis 3. The presence of registered voters with an ADOT code indicating that they are a non-citizen is significantly predicted (p<0.001) by the presence of a larger portion of non-citizens in a county. There is no support for hypothesis 2 however: the presence of naturalized citizens in a county does not significantly predict the presence of individuals with a non-citizen ADOT code on the active voter list. Indeed, the coefficient for this variable is not only statistically insignificant (p>0.1) but it has the wrong sign.

Table 3 Logit Model Explaining Presence of ADOT non-citizen code among Active Voters

	Logit Coefficient estimates (Standard Errors)
Portion of population composed of non-citizens in county	14.15 (1.01)**
Portion of population composed of naturalized citizens in county	-1.41 (1.01)
N	3,919,512

** statistically significant p <0.001.

57. The results of an ordered logit model presented in Table 3 are consistent with only one of the explanations for the presence of thousands of individuals flagged by ADOT as non-citizens: Hypothesis 3 which was that these individuals (or at least a substantial portion of them) are in fact non-citizens.

58. Once again, this speaks to the merits of additional sources of information as called for in the laws being reviewed in this case in order to help election officials make the most accurate possible judgments utilizing as much information as possible. More information from more databases, as noted previously, should reduce the frequency of error.

1.3.6. Critique of McDonald Section 4.6 – Availability of the National Association for Public Health and Statistics Systems Database

59. McDonald criticizes the current lack of access to the National Association for Public Health and Statistics Systems Database by most county election officials but fails to acknowledge that this lack of access makes sense given that the laws concerning that access largely have not been implemented yet and are currently being litigated. In this case. In all, this is a puzzling critique.

1.4. Critique of McDonald Section 5: County recorder discretion cannot be evaluated with vague hypotheticals

60. McDonald's discussion of county recorder discretion highlights the importance of clear guidance for county recorders, but overstates the challenges faced, and depends upon responses to a series of vague and ambiguous hypotheticals to claim disparities in treatment. Furthermore, to the extent that there are disparities in treatment, the possibility that some recorders err on the side of not scrutinizing evidence sufficiently and registering non-citizens to vote is ignored.

61. HB 2243 and HB 2492 are criticized by McDonald for failing to define what constitutes "reason to believe" a registrant is not a US citizen. The analysis in this area is flawed for two reasons. First, the claims of varying interpretations are often overdrawn. Second, it ignores the legal meaning of the reason to believe standard invoked here. The reason to believe standard plays an important area in various areas of law, and in practice depends on the totality of circumstances and contextual judgment. Thus, reason to believe is a legal term with a clear meaning, one that will, if necessary, doubtless be clarified in its application to edge cases by the courts as appropriate.

62. McDonald's analysis focuses extensively on a series of vague hypothetical questions that were asked of various county recorders. Specifically, several reporters were asked in their depositions about how they would respond to "information provided by a neighbor, an anonymous call, or through the mail" (pp. 45 – 47). If we think about this through the lens of a reason to believe standard, all of these hypotheticals are likely vastly under-specified. A reasonable person might well reject as no "reason to believe" some types of information provided by a neighbor, an anonymous call, or through the mail, while finding other types of information received in these ways plausible. A great deal would depend upon the specific details of the communication, and the knowledge held by the county about the individual communicating this information, the availability of corroborating evidence, and so forth. Because of the need for all relevant information about the communication to be considered when forming a judgment about its reasonableness, these vague underspecified hypotheticals and the mixed responses they generated carry relatively little information.

63. It seems to me that it is also important to keep in mind that under the laws being litigated, county recorders' next step in the event that such information appears credible to them involves checking databases to verify information or gather additional information. Indeed, the "reason to believe" term appeared only once in HB 2243, when it does appear it plays a minor role. It appears that all it triggers is a SAVE database check.

1.5. Critique of McDonald's Section 6 "Uneven County Recorder Implementation"

64. McDonald's analysis of the way county officials are already implementing DPOC provisions provides no statistical tests for the claimed outliers, reports several analyses that cannot be replicated because of errors made by McDonald, and ignores key omitted variables in the

analysis such as the prevalence of non-citizens in the county. As such, the analysis cannot be relied upon to demonstrate unequal or uneven application.

65. I will divide my critique into several sub-components. Each subsection examines one part of McDonald's analysis. Each will revisit a series of themes. The lack of statistical tests or even the articulation of a statistical standard, the omission of key variables, and analyses that fail to replicate and are otherwise flawed or potentially misleading.

1.5.1. McDonald's flawed analysis of cancelled voters

66. In McDonald's report, Table 1 compares the number of active registered voters and the number of voters 'cancelled for status reason of "Invalid Citizenship Proof"'. The section claims that there is "Uneven County Recorder Implementation" but does not demonstrate this because it lacks any effort at statistical analysis of the presence of outliers, it fails to consider alternative explanations for variation, and it contains analyses that are misleading or fail to replicate once methodological flaws are taken into account.

67. McDonald asserts that a visual inspection of Table 1 makes obvious that there are outliers which he asserts reflects "uneven… implementation" of the law. This discussion fails to apply or articulate any of the vast statistical literature on outlier detection. There are many ways of identifying outliers. None of these approaches seem to have been applied here, and no choice of approach is explained or justified. This is important because the term outliers has a variety of definitions, and the implications and the importance of the presence of outliers varies greatly depending upon the definition applied.

68. The claim of "uneven … implementation" also ignores and thereby omits crucial variables that might account for the variation across counties. In statistical analysis, one of the reasons for unexplained variance or apparent outliers is a failure for one variable (here the number of active registered voters) to predict another. This is known as omitted variable bias.[4] In my graduate statistics courses, students examine examples of what this bias can do to the quality of the estimates. The effects can be dramatic, sometimes completely reversing the true pattern, and producing badly biased estimates.

69. McDonald omits obvious variables in his analysis such as the number of non-citizens in a county. There is wide variation in the size of the non-citizen population across Arizona counties.[5] For instance, Yuma (207 thousand) and Mohave (221 thousand) have similar populations. However, the 2022 American Community Survey estimates of their non-citizen populations differ dramatically (27,725 versus 3,723). Failure to account for these sorts of differences could obviously badly distort inferences about "outliers." McDonald also fails

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[4] For a basic primer in the public domain see https://en.wikipedia.org/wiki/Omitted-variable_bias.

[5] https://data.census.gov/table?q=B05001:+Nativity+and+Citizenship+Status+in+the+United+States&g=040XX00US04,04$0500000&tid=ACSDT1Y2022.B05001

to consider explicitly covariates that could be associated with unequal application of the law. I will pursue the point of including omitted variables in a later subsection.

70. Another critical limitation of McDonald's analysis is that it fails to consider the ambiguities of the coding scheme in the voter registration database. McDonald analyzes one category of the "Status Reason" field in the voter file. There are 34 different categories in that variable, several of which potentially overlap with the "Invalid Citizenship Proof" category.

71. One of the categories that overlaps with this category is the category "Juror Questionnaire – Citizenship" as this category also involves issues with an individual's proof of citizenship. In this instance a statement made in the juror survey that the individual was not a citizen. I will discuss the juror survey results in more detail below.

72. Another category is "Involuntary Cancellation" which has more than 37 thousand entries (37,734). A cancellation for lack of citizenship proof is likely to be involuntary, so this category could also be selected by an election official in the process of removing a non-citizen from the voting rolls.

73. And yet another is "Voter Request – Voluntary" as in some instances in other states non-citizen requests for removal from voting rolls is one of the ways non-citizen registration is detected (see the discussion of Pennsylvania below where a systemic flaw in the PennDOT motor voter system was identified after non-citizens who had been registered as a result requested cancellations).

74. Because of the overlapping categories that were not examined, it is entirely possible that even if McDonald was correct that there are discrepancies in the distribution of the variable across counties, the discrepancies could merely reflect variance in "Status Reason" variable coding practices within or between counties that lead to identical administrative actions being coded with different "Status Reason" codes in the voter file. For instance, if one county customarily indicates a cancellation for lack of proof of citizenship using one code, and another county customarily uses a different code, there could be seeming discrepancies in treatment. However, these seeming discrepancies could merely reflect surface differences in coding without any actual differences in treatment of individuals.

75. The multiple potential reasons for the patterns identified, the failure to statistically test the patterns, and the potential problems with variable coding all combine to suggest that McDonald's analysis in Table 1 is likely unreliable.

1.5.1.1. Inability to replicate analysis in McDonald Section 6.2
76. McDonald discusses an analysis of 79 individuals who he says provided citizenship data to ADOT (their drivers license issue date) prior to their voter registration. This analysis is flawed for several reasons and cannot be relied upon. First, it uses an inappropriate date from the voter file. Second, it ignores details about the ADOT citizenship status data provided to McDonald by ADOT.

77. The voter file contains two dates – the registration date and the effective date of change. HAVA checks take place shortly after the registration date. It makes no sense to discuss a plan to "restrict my analysis here and after to where a HAVA check should have indicated individuals were citizens **at the time of registration**" (McDonald page 54 emphasis added) and then use a date that is sometimes more than *14 years* different from the date of registration. Thus, McDonald used the wrong date from AVID. The voter file date used for comparison should be the date of registration, particularly since in his report he asserts that this is what he will do, only to then do something different.

78. The second methodological flaw involves failure to appropriately interpret the ADOT file. The main ADOT file with which Dr. McDonald and myself were provided contains an indicator "Y" only when an individual is recorded in the ADOT database as a non-citizen. All other cases are left blank. This is important because ADOT has not always collected information on citizenship status. For this reason, Arizona law typically only accepts an "An Arizona driver license issued after 1996 or an Arizona nonoperating identification license" as proof of "documentation of citizenship or alien status."[6] However, because all other cases are left blank or missing in the dataset, individuals who may never have provided ADOT with proof of legal presence are included in McDonald's analysis as if they had provided proof of citizenship to ADOT.

79. Once these corrections are made, the number of individuals identified drops from 79 to 39. This is a drop of more than half, reflecting the unreliability of McDonald's previous calculations. The upshot is that McDonald's calculations in this section appear to be based upon an inconsistent discussion of the methodology applied, and the evidence of individuals who had their registration cancelled for lack of citizenship while ADOT records appear to have indicated citizenship is considerably weaker.

1.5.2. McDonald's Flawed Analysis of Suspended Registrations

80. McDonald's Section 6.3 and Table 2 examine individuals with a registration status which has been suspended for Status Reason of "Invalid Citizenship Proof. McDonald's analysis in this section fails to replicate. In social science methodology, replication is an important aspect of determining the validity of scientific conclusions. The inability to replicate this analysis suggests that errors may have been made by McDonald, and casts doubt on the validity of his conclusions.

81. As in the previous section, McDonald claims that there is evidence of outliers without providing any statistical tests, and without considering potential omitted variables. These omissions limit the extent to which scientific conclusions can be drawn from the table as presented. I discuss the omitted variables problem in more detail below.

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[6] https://www.azleg.gov/ars/41/01080.htm

82. McDonald also failed to consider whether the coding category being analyzed mutually exclusive with other coding categories. I suspect it isn't. For instance, in the suspense file there are 5,216 records with the code "Registrant - Waiting Verification" which seems to me as if it could also be a plausible category to select for an individual for whom DPOC had been requested or was actively being sought. As with the cancelled voters, it is possible that even if one stipulates there to be "outlier" differences across counties in their frequency of the "Invalid Citizenship Proof" code, they could merely reflect differences in "Status Reason" coding practices rather than any actual differences in the treatment of citizens or non-citizens.

83. The data analyzed also appears to be flawed. McDonald writes that "The largest county, Maricopa County, has zero applications in this suspense status" but ignores the absence of Maricopa County data in the entire suspense file which contains many other categories of suspended registrants (and 35,350 total records). While it is perhaps possible that no one in the largest county in Arizona is in suspense status for any reason – not even for having optimistically registered before their 18th birthday… etc.. it seems to me more plausible that this reflects the omission of Maricopa from this database. In most of the other analyses I conducted, Maricopa data was provided separately and often in a different format. It is likely that the absence of suspensions from Maricopa reflects the failure to provide data rather than the absence of any suspensions for any status reason in the county. While it is unfortunate that the parties seem seems to have failed to provide a file in response to this query, it is inappropriate to misinterpret that omission.[7]

1.5.2.1. Inability to replicate analysis of citizenship status of suspended registrations

84. The analysis McDonald describes at the top of page 57 failed to replicate because of methodological problems. At the top of the page McDonald writes:

> "To determine this, I note that 918 of the 5,592 suspended registrations have a driver license or nonoperator identification card. Of these, 587 have an ADOT record indicating that they are a citizen. Of these, 47 have an Effective Date in Change in the voter registration database following the Issue Date of the driver license in the ADOT customer database."

85. The 918 figure included 5 duplicate records with the same drivers license number, and a very high level of similarity in other fields that led me to be confident that these were indeed duplicates.

86. After removing the duplicates described above, I had a total of 913 individuals with something written in the AZ drivers license field of the voter file. However, only 582 of

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[7] I suspect that the source of the confusion here was that a single file was produced for all of the other counties and was labeled as "APIRFP_NotRegistered_NotEligible_Suspense_AllCounties…._AZSOS-000650.csv" most likely because, if I am not mistaken, Maricopa uses a different system to maintain its records than the other counties, so this file contained the data for all counties in the database it was drawn from.

these could be matched with the ADOT file. The remainder may have had data entry errors in the driver's license field, or the registrant may not have supplied a valid license number. Some of the numbers supplied were clearly invalid such as "AZ." There is no way in which McDonald could have conceivably performed a valid match of this "number" so it is clear that not all 918 (or 913 once deduplicated) could have been matched as seems to be claimed.

87. Among the 582, my numbers continued to not match McDonald's numbers. McDonald claims that there were 587 with an ADOT record indicating that they were a citizen. I identified only 329. With the addition of the five duplicate drivers license number rows, I would likely have had 587 total matches with the ADOT database, so it seems likely that *McDonald may have mistakenly assumed that every number that matched with the database was a citizen.* In fact, only 329 were individuals who lacked the ADOT coding indicating that they were not a citizen. Thus, at most 329 were citizens according to ADOT records.

88. McDonald also failed to exclude individuals with a drivers license issue date prior to the time when ADOT began collecting legal presence information, as discussed above. The ADOT file with which Dr. McDonald and myself were provided contains an indicator "Y" only when an individual is recorded in the ADOT database as a non-citizen. All other cases are left as missing. This is important because ADOT has not always collected information on citizenship status. For this reason, Arizona law typically only accepts an "An Arizona driver license issued after 1996 or an Arizona nonoperating identification license" as proof of "documentation of citizenship or alien status."[8] However, because all other cases are left missing in the dataset, individuals who may never have provided ADOT with proof of legal presence are included in McDonald's analysis. These individuals are not ones known to ADOT to be citizens.

89. Elimination of individuals with a registration date not issued after 1996 drops the correct total further: to 323.

90. The effective date in change comparison McDonald discusses on page 57 is also inappropriate, as discussed above concerning McDonald's Section 6.2. For the purposes of evaluating the accuracy of the HAVA check process and whether citizens are inappropriately flagged, the more appropriate date is the registration date. Indeed, McDonald is explicit about the intention to do this on page 56 when he writes that he is examining individuals who "had an ADOT customer record that indicated they were a U.S. citizen *at the time of registration*" (emphasis added) only to shift inexplicably on page 57 to discussion of the "Effective Date of Change." Perhaps this suggests confusion on the part of the analyst, which can lead to data analysis errors.

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[8] https://www.azleg.gov/ars/41/01080.htm

91. In the end, I was able to identify just 31 records on the list of suspended voters who had records indicating that they had provided citizenship status DPOC to ADOT prior to their attempt to register to vote. This is down from McDonald's claimed 47.

92. As noted above, failure to replicate casts doubt upon the validity of social science work. McDonald's claim that 587 individuals on the Suspense list have an ADOT record indicating that they are a citizen could not be replicated and appeared to reflect failure to understand the results of the statistical matching algorithm utilized. Only 323 such individuals could be identified. This and other issues contributed to a further failure to replicate his other claims. As with the analysis of section 6.2, McDonald appears to have made substantial data analysis errors that led to overstating the numbers by nearly half.

93. Additional analysis of suspended registrations indicated that among the 253 records with an ADOT file match indicating they were not a citizen, 97 of these records showed a voter registration date *prior* to the issue date of the drivers license issuance, further confirming their non-citizenship status in the ADOT file. After attempting to register to vote, these individuals appear to have interacted with ADOT again and as far as I can tell based upon the information available to me, effectively confirmed that *they lacked citizenship*. I will discuss these in more detail below.

1.5.3.1. Inability to replicate analyses in McDonald's Section 6.4 Federal Only Registrants

94. My effort to replicate McDonald's analysis of federal only applicants also identified many numbers that could not be replicated. As I have noted several times, replication is an essential part of demonstrating the validity of social science data analysis. It is for this reason that nearly all major political science journals require that authors provide a replication archive so that others can evaluate their data and data analyses. The fact that McDonald's analyses do not replicate, and even worse the fact that consistently the replication finds evidence of errors that exaggerate the problems he is intending to highlight implies that his analyses as reported in the expert report for this case should not be seen as credible.

95. On page 59 of his report, McDonald writes that**:**
> **"**1,540 of the 19,439 federal-only voters have a driver license or nonoperator identification card. Of these, 169 have an ADOT record indicating that they are a U.S. citizen."

In fact, however, these numbers do not seem to be correct. There were indeed 1540 entries with *something* written in the drivers license field in the AVID file. However, I was unable to replicate the complete matching that McDonald seems to imply and I am confident that McDonald could not possibly have matched all 1540 numbers either. In fact, some of the numbers McDonald claims to have matched were clearly unmatchable such as the two letters "CO" for a driver's license number. In the end only 222 numbers could be matched. Thus, McDonald **overclaimed matching** by a factor of about seven times. He seems to have assumed that any record with something in it would match without checking if this was in fact the case.

96. McDonald indicated that 169 of the 19,439 individuals had an ADOT record indicating that they are a citizen. Once adjusting for the fact that ADOT records with issue dates after 1996 are the only ones with a valid indicator of citizenship status, I was only able to locate 112.

97. As in the other parts of Section 6 McDonald provided an analysis of whether individuals registered before or after the issue date of their drivers license. Section 6.4.1 of his report purports to show that there are:

> 108 registrants who provided county recorders with their driver license number and had an ADOT customer record that indicated they were a citizen at the time of registration. (p. 59)

This analysis is contaminated by the same matching and analysis errors I identified in the other parts of section 6. Once the appropriate analysis is performed, only 36 individuals can be identified who meet the criteria identified by McDonald. This time the reduction in numbers is even steeper than it was in the other sections. **McDonald claimed a number more than three times as large as he should have.**

98. To review, how did McDonald make this mistake? He seems to have made multiple errors that led to a badly overstated claim. First, he failed to exclude individuals with a drivers license issued before ADOT began collecting the information on legal presence. Second, he failed to clean his data to remove duplicates.

99. In addition, I was able to match 65 Federal-only individuals who had a notation that they were non-citizens in the ADOT data. If these individuals provided information to ADOT after they registered to vote it would demonstrate that this anomaly is not likely attributable to naturalization after provision of proof of legal presence to ADOT. Of the 65 individuals on the federal list, 41 had a drivers license issue date after their voter registration date. This strongly suggests the possibility that at least these 41 spent at least a period of time as illegally registered non-citizens because they appear to have updated their drivers license information with information that they were a non-citizen after registering to vote.

100. The overall point of the analysis above is that McDonald's analysis of Federal Only registrants is inaccurate in several places. As with the previous analyses in Sections 6.2 and 6.3, McDonald's errors lead to an overstating of the prevalence of ADOT-identified citizens on the Federal-only list. Instead of 169, there are only 112. Instead of 108 with "HAVA check" anomalies there are only 36. The main implication is the same as for the other sections. McDonald's analysis is prone to errors, inconsistencies, poor data management, and misstatements.

1.5.4. The Issue of Omitted Variables in McDonald's Section 6 and the Inability to Identify Outliers

101. The issues with the "outliers" analysis of Table 1 also apply to Table 2 and Table 3. The omission of key relevant variables undermines the ability to draw **any** effective conclusions from the analysis about the presence of outliers. In addition, no statistical tests are offered.

There are plausible omitted variables that should have been included, especially the prevalence of non-citizens.

102. To illustrate just how important this omission of variables might be, I correlated and ran a simple linear regression model with the dependent variable as "federal only" and the independent variable as the ACS 5-year estimate (2021 vintage)[9] of the number of non-citizens in the county. The variables are strongly associated with each other. The correlation between the variables is 0.96 and the R-squared for this regression is 0.92. The maximum possible R-squared and correlation coefficients are both 1, so this is a very strong relationship. This analysis suggests that 92 percent of the variance in the number of federal only voters in a county can be accounted for with a simple linear model using the variable McDonald omitted – the number of non-citizens in the county.

103. This is the sort of pattern one would expect to observe if rather than there being anomalous "outliers" in county practices towards non-citizens or anyone else, there was variation across counties in the presence of non-citizens.

104. Combining the numbers of individuals identified by McDonald in Tables 1 through 3 produces a similar analysis: counties where there are more non-citizens tend to have more individuals cancelled, suspended, or put on the federal only list (R-squared 0.91). This suggests that omission of this variable may be a significant risk for the validity of conclusions across Tables 1 through 3. Again, if most of the variation can be accounted for by an omitted variable, there may be little left to account for on the basis of so-called outliers.

105. In my analysis of McDonald's Table 3 data, the size of the estimated coefficient in the linear regression equation in which County_Number_of_Federal-only_Voters is predicted by the County_Number_of_NonCitizens is (0.0315, standard error 0.0024) which suggests that **for every additional 100 non-citizens in a county, an additional 3 individuals are placed on the federal only list.** Are these individuals citizens or non-citizens? The analysis just discussed suggests they might well be non-citizens.

106. To take the analysis discussed above farther, I moved beyond analysis of county level variation and examined whether an individual's status as a federal-only voter could be predicted by the portion of non-citizens residing in their county. The key results are reported below in Table 4 with and without county-level fixed effects. In both cases, the coefficient is highly statistically significant and positive, indicating that individuals are more likely to be federal only voters when they reside in a county with a larger non-citizen population. This result is consistent with the idea that an important driver of inclusion on the federal only voter list is status as a non-citizen. As one would expect if this was the case,

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[9]https://data.census.gov/table?q=B05001:+Nativity+and+Citizenship+Status+in+the+United+States&g=040XX00US04,04$0500000&tid=ACSDT5YSPT2021.B05001

individuals are more likely to have "federal only" status if they reside in a county where a larger portion of the population consists of non-citizens.

Table 4 Logit Model of Probability of Federal Only Voter Status

	Equation 1	Equation 2
	Logit Coefficient estimates (Standard Errors)	Logit Coefficient estimates (Standard Errors)
Portion of population composed of non-citizens in county	3.94 (0.30)**	9.64 (0.85)**
County level fixed effects:	No	Yes
N	4,165,291	4,165,291

** statistically significant $p < 0.001$

107. The analyses above suggest McDonald's conclusion that there are county-level outliers is not demonstrated by his analysis. Statistically significant control variables were not included, and no process for scientific statistical detection of outliers was identified or applied. The possibility that the "uneven implementation" putatively identified by McDonald potentially reflects variation in the extent to which counties have non-citizens seeking to register to vote or some other systematic variable omitted from his assessment is bolstered by this information.

1.6. Critique of McDonald Section 7 "Uneven Impact" could simply reflect impact on non-citizens

108. McDonald titles his section 7 "Existing Arizona DPOC Requirements, Uneven Impact" but ignores one of the critical aspects of these requirements – that they have to do with documenting citizenship. The relationships identified could plausibly reflect the consequences of these requirements restricting non-citizens' efforts to illegally register and vote. This observational equivalence problem means that one cannot conclude whether the requirements are having an uneven impact on citizens as a result of race or age or party affiliation (as McDonald suggests), as opposed to any associations identified reflecting important aspects of the demographics of the non-citizen population in Arizona. In addition to this observational equivalence problem, McDonald also offers no tests of statistical

significance, even in cases where the methods used likely introduce additional error. As a result, there is no demonstration that there is in fact any "uneven impact" whatsoever.

109. McDonald's analysis of his Table 4 attempts to show that there are disparities in the likely (based upon ecological inference) racial composition of active voters compared to Federal-Only, Suspended-Citizenship, and Canceled-Citizenship respondents. However, McDonald does not provide any statistical tests to determine whether the differences are statistically significant. The lack of any statistical tests means that it isn't clear any conclusions can be drawn from the comparison that is offered. This problem is especially important since the ecological inference process necessarily introduces error, and that error has not been quantified at all by McDonald. No reliable conclusions can be drawn from Table 4 as a result.

110. McDonald's analysis of Table 4 also ignores a critical counterfactual. If the processes of suspending, cancelling, and moving to federal-only status encounter non-citizens, we would expect to see precisely the kinds of patterns identified in Table 4. Because the non-citizen population tends to be more racially and ethnically diverse than the native born population in Arizona, we would expect to see that people on the Federal-Only, Suspended-Citizenship, and Canceled-Citizenship lists would tend to be more diverse in precisely the ways McDonald has identified. Unequal impact on citizens has therefore not be demonstrated.

111. The critical counterfactual identified above creates a problem of observational equivalence. In social science methodology, the problem of observational equivalence occurs if two different theoretical explanations can both account for the same observed phenomenon. Because of the problem of observational equivalence, even if the data is stipulated to be reliable, and even if we pretend that some type of statistical test had been conducted that supported McDonald's claim, this could imply that these lists are working as-intended to prevent non-citizens from voting in Arizona elections.

112. McDonald's Table 5 reports estimated race and ethnicity statistics based upon surname matching. Although McDonald asserts that the results imply specific differences between active voters and those on the Federal-Only, Suspended-Citizenship, and Canceled-Citizenship lists, no statistical tests are provided that demonstrate that this is the case. This is a particularly important problem because the surname matching process introduces additional error into the measurement which has not been quantified or taken account of.

113. This analysis is also subject to the same critical counterfactual and the same observational equivalence problem that was ignored by McDonald in the analysis of Table 4. In Section 7.1 McDonald claims that "federal-only voters are more likely to come from communities of color" and that "cancelled and suspended registrants tend to be more diverse than active registrants" without considering that this is also what one would conclude if these lists were preventing non-citizens from voting in Arizona elections. Because this observational equivalence problem has not been addressed, the analysis cannot guide any argument claiming racial or ethnic discrimination against *citizens*.

114. McDonald's Table 6 reports an analysis of the ages of individuals on the Federal-Only, Suspended-Citizenship, and Canceled-Citizenship lists compared to Active Registered Voters. Interpretation of this analysis is subject to the same critical counterfactual and observational equivalence issues as Tables 4 and 5. Furthermore, McDonald also offers no statistical tests proving that the assertions made are in fact supported by the data. McDonald's results could reflect the tendency for the non-citizen population of Arizona to be less likely to be in older age categories than the citizen population.[10]

115. On pages 69 – 70 McDonald discusses the partisan affiliations of Active Registered Voters compared to individuals on the Federal-Only, Suspended-Citizenship, and Canceled-Citizenship lists. This analysis suffers from the same counterfactual and observational equivalence problems as the rest of the analyses in Section 7. Non-citizens tend to be less likely to support the Republicans[11] so the result claimed is consistent with what one would expect if these lists contained non-citizens. Again, the alleged "uneven impact" could merely reflect the impact on non-citizens.

116. The partisan distributions identified by McDonald for the Federal-Only, Suspended – Citizenship, and Canceled – Citizenship categories match quite well with survey data on the party identification of non-citizens in both the United States in general, and Arizona in particular. Consider Tables 5 and 6 below which tabulate party identification among US citizens and non-citizens both in the USA and then in Arizona specifically using the CCES, a large U.S. election study. In both tables there is a statistically significant ($p<0.001$ with a chi-square test) difference between the party identification of citizens and non-citizens. The general pattern is one of non-citizen identification with the Democratic Party at rates similar to or slightly higher than the general population, and non-citizen identification with the Republican Party at a rate substantially lower than the general population. McDonald's Table 7 reproduces a similar pattern. As noted above, this similarity provides more credence to the argument that McDonald has failed to demonstrate disproportionate impact among eligible voters – the differences noted reflect the patterns that would be expected if those on the Federal-Only, Suspended-Citizenship, and Canceled – Citizenship lists were in fact non-citizens. Non-citizens are not eligible voters.

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[10] See for instance
https://data.census.gov/table?q=Citizenship+Status+in+the+United+States+by+age&g=040XX00US04&tid=ACSST1Y2022.S2901 and
https://data.census.gov/table?q=population+by+age&g=040XX00US04&tid=ACSST1Y2022.S0101

[11] See Jesse Richman, Gulshan Chattha, and David Earnest. 2014. "Do Non-Citizens Vote in US Elections?" Electoral Studies. 36(December) 149-157.
http://authors.elsevier.com/a/1Pr7TxRaZ7uLD DOI: 10.1016/j.electstud.2014.09.001

Table 5: Party Identification Among US Citizens and Non-Citizens in the USA

Party Identification: "Generally speaking, do you think of yourself as a . . . ?"	Citizen	Non-Citizen
Democrat	213,252	3,266
	36.64%	35.60%
Republican	153,681	1,079
	26.41%	11.76%
Independent	164,032	2,726
	28.19%	29.72%
Other	23,671	305
	4.07%	3.32%
Not Sure	27,339	1,797
	4.7	19.59
Total	581,975	9,173

Tabulated from the CCES Cumulative Data File by Kuriwaki, Shiro, 2023, "Cumulative CES Common Content", https://doi.org/10.7910/DVN/II2DB6, Harvard Dataverse, V8 using the command *tabulate pid3 citizen, col chi2* in Stata.

Table 6: Party Identification Among US Citizens and Non-Citizens in Arizona

Party Identification: "Generally speaking, do you think of yourself as a . . . ?"	Citizen	Non-Citizen
Democrat	4,488	61
	29.88%	30.35%
Republican	4,827	33
	32.13%	16.42%
Independent	4,530	59
	30.16%	29.35%
Other	612	3
	4.07%	1.49%
Not Sure	565	45
	3.76%	22.39%
Total	15,022	201

Tabulated from the CCES Cumulative Data File by Kuriwaki, Shiro, 2023, "Cumulative CES Common Content", https://doi.org/10.7910/DVN/II2DB6, Harvard Dataverse, V8 using the command *tabulate pid3 citizen if state == 4, col chi2* in Stata

117. This is not the last time I will use the Cooperative Election Study (CES) dataset in my report. But it's a good time to highlight something about this data. Some critics (including Minnite in her export report for this case) have argued that one cannot make inferences from

the CES data concerning non-citizens because of the possibility that citizens will have mistakenly identified themselves as non-citizens on the relevant survey questions. To the extent that this bias is occurring in the data just analyzed, it's important to keep in mind that it will tend to *minimize* the differences observed between citizens and non-citizens. Thus, to the extent that one believes that critics of my previous work using this dataset are correct, one should believe that the differences in attitudes between citizens and non-citizens are understated in the table above.

118. One final point. As in all of his other analyses, in the discussion of partisan affiliations on pages 69-70 McDonald does not provide tests of statistical significance, leaving open the same concerns as those raised above for Tables 4 through 7. He has not evaluated whether the differences noted in Table 7 are statistically significant.

1.7. Critique of McDonald's Section 8: Place of Birth is a useful field

119. McDonald's criticism of the place of birth data in the Arizona voter file ignores the potential value of this data in conjunction with the vital records data. It also ignores the several other uses of this data that are outlined in the election manual.

120. The place of birth provides information on citizenship because the 14th Amendment of the United States Constitution mandates that "All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside." Thus, if an individual can be demonstrated to have been born in the United States, this typically proves citizenship. The deposition of the Arizona Attorney General as represented by Keith Thomas (AG depo. pp 314 line 24 – 315 line 10) demonstrates that the state is aware of this fact.

> Q. Does your office consider a person's birthplace to be reliable evidence of U.S. citizenship?
> A. Yes.
> Q. In what context?
> A. If they're born in the United States and they have a birth certificate that is issued by a state department of Vital Records or someone that was -- a birth certificate that was issued that -- if they were born abroad, like, on a U.S. military installation, those verify citizenship. Doesn't mean they couldn't have had their civil rights taken away, but for citizen purposes -- citizenship purposes, yes.

121. Nonetheless, McDonald argues in Section 8 that place of birth is not a useful field. This discussion of the place of birth data ignores the potential utility of the place of birth field when confirming and identifying a match with birth and death records. Expanded use of birth records in verifying citizenship status could help reduce uncertainty about citizenship status and diminish the number of individuals who are not full active voters. This could thereby reduce the number of individuals requested to provide DPOC, and also increase public confidence in the security of Arizona elections.

122. McDonald claims that "There is no database for Arizona election officials to check birthplace information against." But in making this claim, McDonald seems to have forgotten the role of the National Association for Public Health Statistics and Information Systems (NAPHSIS) Vital Events System (VES) data in HB 2492 and HB 2243. Although details of what is contained in this database do vary somewhat depending on source locality, one of the elements of this system is typically the birthplace. Thus, place of birth is potentially an important data element for searches aimed at verifying citizenship using this database. Clearly the place of birth is a relevant field for searches using this database. The central claim made in Section 8 therefore appears to be incorrect.

123. Furthermore, the depositions of county recorders make clear that access to such a database would be useful for them. For instance, Yuma county recorder Ms Jonston (Jonston depo. p 161 19-21) makes clear that under the current status quo it is not possible to run additional checks on a birth certificate document that difficult to read or damaged. "We cannot run a U.S. passport or a birth certificate through any additional checks." Which highlights the value of fully implementing the challenged statues and providing access to VES data for county recorders to assist in verifying documents.

124. McDonald also claims that variance in the way birthplace is currently recorded in the voter file will render it useless. However, all of the examples noted provide at least some guidance to restrict the set of potential matches with VES. Thus, the place of birth field retains utility, both potentially as a search element, and as an additional datapoint to rule out false matches. If an individual has the same name and date of birth as someone born in California, but the place of birth on the application is listed as Arizona, then this data field could help rule out a false match.

125. The Service Arizona portal for voter registration also provides a mechanism for streamlining and systematizing the process of entering the state or country of birth, as it has a drop down menu that offers a standardized list of state names and country names. This portal and related strategies should reduce the issues with unsystematic entry in this field that McDonald expressed concerns about. I was provided with a full set of screen shots showing the options in the portal. There appears to be a quite comprehensive list of countries, followed appropriately by the option for the user to indicate that the country or state is unknown or undetermined. This option should allow individuals who prefer not to disclose to keep that information private if they wish. Figure 1 is a screenshot of the portal that shows the last few options available.

Figure 1: Screen Shot of Service Arizona portal

126. In addition, McDonald ignores the utility of the place of birth column for other purposes. Several are mentioned in the most recent Arizona Election Procedures Manual[12] including use when dealing with married names and birth certificates (p. 5), passports (p. 5) deaths (page 33), ballot-by-mail request forms (page 47) and provisional ballots (page 200).

127. It seems curious to me that another of McDonald's critiques is that this field is not filled in for all entries in AVID. The wide range of uses to which the field can be put to facilitate effective administration of elections suggests that requiring completion of the field could well have merit. And in any instance, requiring completion of the field would surely improve the frequency with which this data is provided. I know that when I am filling out a form I am much more likely to fill in requested data if it is identified as required than if it is optional.

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[12] https://azsos.gov/elections/about-elections/elections-procedures-manual

128. It is clear that the place of birth field is a useful field for many reasons, including creating and maintaining voter records and facilitating the counting of ballots. Inclusion of this field, and enforcement of a requirement that registrants include information in this field thereby seems warranted in order to improve the functioning of Arizona election systems.

1.8. Critique of McDonald Section 9: No proof of harm to voter turnout

129. McDonald asserts in Section 9 that DPOC requirements, including those in HB 2243 and HB 2492 will reduce voter turnout. But a careful review of the evidence presented should lead an impartial observer to conclude that the case has not been made. No proof has been offered that there will be either a general harm to voters, or a more focused harm to specific demographic groups.

130. McDonald's argument in Section 9 depends critically on the analysis in Section 7 "as established in the demographic analyses…" However, as pointed out above, the data provided by McDonald in Section 7 provide no basis to conclude that there is "uneven impact" and fails to consider the important alternative hypothesis that any patterns identified reflect the demographics of the non-citizen population. Since the evidentiary basis for this claim is not valid, the inferences from that evidence do not follow.

131. Specifically, McDonald failed to demonstrate in Section 6 that many of the individuals on the Federal-only, suspense, and cancelled because of non-citizenship lists were in fact citizens at the time of their registration. My replication of his matching process led to substantial drops in the estimates once obvious flaws and inconsistencies were remedied.

132. Furthermore, I have presented analyses consistent with the hypothesis that the geographic distribution of individuals on the lists is reflective of non-citizen status.

133. Furthermore, in Section 7 McDonald identifies demographic patterns that are consistent with the hypothesis that those being most impacted by the current DPOC requirements are non-citizens.

134. In addition, McDonald ignores the ways that the additional databases that will be used by Arizona election officials under the provisions of HB 2492 and HB 2243 can improve the robustness and accuracy of determinations of citizenship status thereby reducing costs of registration even further relative to the current status quo.

135. In the face of the uncertainty and ambiguity of the data McDonald has presented, it makes little sense to conclude that the DPOC provisions will have a negative impact on voter turnout.

136. There is also little evidence that the DPOC requirements currently in place in Arizona are hampering voter turnout. According to voter turnout data long curated by Professor McDonald but not discussed in his report, Arizona has had above average voter turnout in

both of the last two general elections: 2022[13] and 2020.[14] By contrast, in the general elections prior to the implementation of the DPOC requirements in Arizona, turnout in the state was typically below average (e.g. in 2004,[15] 2002,[16] and 2000.[17]) If DPOC requirements were having a negative impact on participation, we would be less likely to see this kind of pattern. If DPOC requirements were encouraging participation, then we would be more likely to see this type of pattern.

137. It is in fact plausible that DPOC requirements could increase turnout. McDonald overstates the strength of the evidence concerning alleged changes in the costs of voting due to prudential election regulations and voter turnout. In fact, the evidence is highly ambiguous, and despite an extensive search for such evidence, little such evidence has been found.

138.   As will be discussed in more detail below, Riker and Ordeshook's "calculus of voting" equation is an expected utility model of the decision to vote. The equation is:

$$U(V) = P*B - C + D$$

Where U(V) is the utility of voting, P is the probability that one's vote will change the outcome of the election, B is the benefit associated with having one's preferred candidate win, C is the cost of voting, and D is the non-instrumental benefit of voting such as fulfilling a sense of civic duty.

139. The argument that prudential election security requirements increase costs and thereby can be expected to diminish the utility of voting is not valid. It depends upon a failure to consider factors that may lead the P and D terms to increase because of better election security. Appropriate consideration of all factors means the net effect of id requirements is indeterminant. In other words, theory does not provide unambiguous guidance about the effects and empirical analysis is required.

140. The costs imposed by Arizona's DPOC requirements are typically miniscule to the point of being non-existent. All most registrants must do is provide a drivers license number, and they are then matched by the state. HB 2492 is likely to reduce those costs for voters even further by expanding the number of databases searched in order to identify DPOC. Thus, except for non-citizens, the costs of registering to vote in Arizona are likely to diminish as a result of HB 2492.

141. Alongside these decreased costs, Arizona's DPOC requirements provide potential increases in two of the other terms (P and D), either or both of which could boost the perceived benefits of voting and thereby increase turnout. First, to the extent that more thorough DPOC requirements diminish fraud or the perception of fraud, they may increase the P term – voter's perception of the probability of one's vote changing the election outcome. Second, DPOC

[13] https://www.electproject.org/2022g
[14] https://www.electproject.org/2020g
[15] https://www.electproject.org/2004g
[16] https://www.electproject.org/2002g
[17] https://www.electproject.org/2000g

requirements highlight the seriousness and importance of voting, and the importance of this right for citizens, potentially increasing D. A wide range of factors may influence the D term here, including public messages about the requirement, controversy about the requirement, and the mere fact that voting is being treated as if the individual's vote matters enough that DPOC should be checked.

142. Even if one was to stipulate (contrary to my argument above) that HB 2492 and HB 2243 on net increase costs for voters, because of the mix of shifts to both the costs and benefits of voting, there is no way to determine based upon theory alone (as McDonald attempts to do) whether HB 2492 and HB 2243 will increase or diminish turnout. It is an empirical question.

143. It is arguably instructive to examine the empirical evidence in another area of election law: photo-identification requirements. This is an area where despite overconfident and oversimplified projections by some activists based on theory, there is little valid evidence that voter identification requirements depress turnout. In the 2017 *Annual Review of Political Science* professor Benjamin Highton, one of the leading experts on voter turnout in the U.S., reviewed the extant evidence of an effect of voter identification laws on turnout. Highton found little evidence of a negative effect of voter identification laws on turnout.

"Methodologically, there are research design hurdles to clear in order to produce effect estimates that may be attributed to voter identification laws. Empirically, a small number of studies have employed suitable research designs and generally find modest, if any, turnout effects of voter identification laws." [18]

In the words of political scientists Jason Mycoff, Michael Wagner and David Wilson "concerns about voter identification laws affecting turnout are much ado about nothing."[19]

144. Indeed, research increasingly suggests an overall *positive* turnout effect – turnout increased with law implementation. A paper by Citrin, Green, and Levy in *Election Law Journal: Rules Politics, and Policy* in 2014 reported on a study in Virginia and Tennessee. The authors found that informing voters of the ID requirement tended to boost turnout and that "Overall, we find no evidence that calling attention to voter identification requirements dissuades voters from voting."[20] And a study published by Daniel Hopkins et. al. in 2017 in the *Journal of Empirical Legal Studies* conducted a careful precinct-by-precinct analysis of the impact of photo-ID requirements in Virginia. They found that turnout *increased* with the

[18] Highton, Benjamin, Voter Identification Laws and Turnout in the United States (May 2017). Annual Review of Political Science, Vol. 20, pp. 149-167, 2017. Available at SSRN: https://ssrn.com/abstract=2968067 or http://dx.doi.org/10.1146/annurev-polisci-051215-022822
[19]Jason D. Mycoff, Michael W. Wagner, & David C. Wilson, The Empirical Effects of Voter ID Laws: Present or Absent, 42 PS: POL. SCI. & POL. 121 (2009).

[20]Citrin Jack, Green Donald P., and Levy Morris. 2014. *Election Law Journal: Rules, Politics, and Policy.* June 2014, 13(2): 228-242. doi:10.1089/elj.2013.0209.

imposition of photo-identification requirements.[21] A more comprehensive recent study published in early 2023 by the *Proceedings of the National Academy of Sciences* concludes that voter identification laws initially created a turnout advantage for *Democrats* (contrary to the frequently litigated fears that Democrats and their supporters would be harmed by these laws), but that currently this advantage has faded and neither party gains political advantage from identification laws. Instead "voter ID requirements motivate and mobilize supporters of both parties" to participate in elections.[22]

145. This positive benefit for election participation is precisely what one would expect if the laws main effects were to increase the P and D terms of the calculus of voting equation by improving voter confidence in the security of elections, and voters sense of the value and importance of voting (D term). And also by stimulating the belief that election officials believe that the vote of every citizen matters so much that identification is required to vote (P term) among other likely causal pathways. More broadly, the example of voter identification highlights the importance of not falling into an overly simplistic and theoretically inappropriate reliance on examination of only one part of the calculus of voting while ignoring the rest of the theory.

Part 2: Critique of Minnite Report

2. Introduction
146. The key questions about non-citizen participation in elections examined here are: do non-citizens register to vote in US elections? If so, to what extent? These are questions of fact rather than theory or opinion. But facts can be difficult to establish. Indeed, often the best one can hope for is to establish ranges of uncertainty. Answering these questions is challenging and potentially quite difficult because of both politics and the limits of social science data.

147. And hence a critical beginning is to launch this investigation with an open mind. And a skeptical mind. It is through the weighing of a range of evidence that we can come to an understanding of the likely scope, and likely limits, concerning non-citizen participation in US elections.

148. I conclude that the incidence of non-citizen participation or attempted participation in US and Arizona elections (through registration or voting) is low, but non-zero. The level of registration is likely on the order of approximately one percent of non-citizens in the US as a whole, and probably lower in Arizona because of the state's longstanding DPOC requirements.

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[21] Hopkins, Daniel J, Marc Meredith, Michael Morse, Sarah Smith, and Jesse Yoder. 2017. "Voting but for the law: Evidence from Virginia on photo identification requirements." *Journal of Empirical Legal Studies* 14 (1): 79–128.
[22] Jeffrey J. Harden and Alejandra Campos. 2023. Who benefits from voter identification laws? *PNAS* 120 (7) e2217323120 https://doi.org/10.1073/pnas.2217323120

149. These levels of involvement are potentially large enough to change the outcome of a very close election, of which Arizona has no shortage, and are sufficient to justify DPOC requirements. But they are not large enough to justify the heated rhetoric that sometimes surrounds this issue.

2.1. Does it matter if non-citizens vote in US elections?

150. Unfortunately, as a political matter, whether one cares about non-citizen participation in elections and what one's position is on the issue often seems to depend in part upon where one sits politically. In the United States most non-citizens support Democratic politicians as I show in more detail below, and therefore, Democratic politicians potentially stand to gain from non-citizen participation in elections. In a number of urban areas, Democrats have led efforts to expand the right to vote to non-citizens in recent years. Conversely, Republican politicians potentially stand to lose. I will therefore begin my analysis by quantifying the extent to which non-citizens support Democrats versus Republicans.

151. As an empirical matter, non-citizen participation can potentially change election outcomes, if there is enough of it. Therefore the subsequent section examines how much participation would be necessary for non-citizen voting to change outcomes in a hypothetical close Arizona election to illustrate the answer to the broader question.

152. Finally there are normative questions. Questions of value. On the one hand, one might argue that non-citizen participation in elections strikes at the heart of the project of self government. George Washington warned in his farewell address about the dangers of foreign intervention. More recently, Congress and Robert Muller have invested many thousands of staff hours investigating allegations of Russian interference in US elections. If and when foreigners who lack the rights and stake of citizens seek to influence the democratic processes of a country, it strikes at the independence and self government of the people. Indeed, George Washington argued in his Farewell Address that "Against the insidious wiles of foreign influence (I conjure you to believe me, fellow-citizens) the jealousy of a free people ought to be constantly awake, since history and experience prove that foreign influence is one of the most baneful foes of republican government." Interests of non-citizens are not necessarily the same as those of citizens. Indeed I demonstrate below that on some important policy issues they are at odds. And foreign influence in elections, ought arguably to be uniformly resisted, even when in particular instances that influence has only modest impacts, or impacts that steer policy or elections in a direction one supports. The basic principle is that in a democracy it should be the citizens who shape policy choices.

153. On the other hand some states had a tradition in the 19th century of allowing some non-citizens to participate in elections, and some localities permit non-citizen participation in local elections today. Individuals who are establishing connections to a new community might potentially be brought into that community more fully through engagement with the

election process. Ultimately, by the early 1920s every state had abandoned the provision of voting rights to non-citizens, although a few localities did continue to allow participation in local elections.[23]

2.1.1 Political views of non-citizens and citizens.

154. An important condition for non-citizen participation in U.S. elections to make a difference is the existence of differences in political views between citizens and non-citizens. This section demonstrates that non-citizens and citizens have different views on immigration, partisanship, and candidate support, with non-citizens tending to adopt more permissive views towards immigration, lower levels of Republican identification, and lower levels of support for Republican candidates.

155. One obvious set of issues on which citizens and non-citizens might be expected to differ involves immigration policy. Non-citizens, by virtue of their status, might reasonably be expected to support more lenient immigration policies than citizens.

156. Table 7 compares the responses of citizens and non-citizens to a series of immigration policy questions asked the 2012 Cooperative Congressional Election Study (CES). On every issue, non-citizens held more pro-immigrant policy views that citizens, and in every instance this difference was statistically significant. Similarly, on every issue non-citizens also had more pro-immigrant views than naturalized citizens.

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[23] For some discussion of these issues that places them in a cross-national perspective see David Earnest. 2008. *Old Nations, New Voters Nationalism, Transnationalism, and Democracy in the Era of Global Migration.*. SUNY Press.

Table 7: Immigration Attitudes Among Citizens and Non-Citizens, 2012 and 2022 CCES
(Numbers in parentheses are number of respondents in a particular category, e.g. total number of citizens in CCES based on self-reported citizenship status.)

Question	All Citizens	Naturalized Citizens	Non-Citizens	Degree to which non-citizens more pro-immigrant than citizens	Degree to which non-citizens more pro-immigrant than naturalized citizens
Grant legal status to all illegal immigrants who have held jobs and paid taxes for… (2012)	46% (53,622)	59% (2615)	68% (692)	22%*	9%*
Increase the number of border patrols on the US-Mexican border (2012)	57% (53,622)	45% (2615)	31% (692)	26%*	14%*
Allow police to question anyone they think may be in the country illegally	40% (53,622)	26% (2615)	19% (692)	21%*	7%*
Fine US businesses that hire illegal immigrants	63% (53,622)	45% (2615)	34% (692)	29%*	10%*
Prohibit illegal immigrants from using emergency hospital care and public schools	32% (53,622)	21% (2615)	14% (692)	19%*	7%*
Deny automatic citizenship to American-born children of illegal immigrants	37% (53,622)	24% (2615)	16% (692)	21%*	8%*

*Statistically significant difference p<0.001 based upon chi-square test.
Source: Ansolabehere, Stephen; Schaffner, Brian, 2013, "CCES Common Content, 2012", https://doi.org/10.7910/DVN/HQEVPK, Harvard Dataverse

157. Again, let's note that some critics of analyses using the CES dataset (and other survey datasets) to evaluate the political views and actions of non-citizens argue that error in survey item response by citizens could distort inferences about non-citizens. To the extent that such error is present in the analyses above it would tend to bias the analyses *against* finding differences in political views between citizens and non-citizens. Thus, if one takes these critics seriously, the differences in political viewpoints between citizens and noncitizens

offered above are likely too modest – there may in fact be even larger differences between the views of citizens and noncitizens.

158. But what about political candidates such as governors and presidents, and parties? Do non-citizens hold different views from citizens concerning which party or which candidate they support? Table 8 uses the cumulative Cooperative Election Study data file from 2006 through 2022, and also the 2010-2012 CCES panel study. It examines preferences across the last several presidential election campaigns – the extent to which non-citizens and citizens held different views about which candidate they supported in pre-election survey questions, and the relative levels of party identification, along with support in Arizona specifically for Democratic versus Republican gubernatorial candidates. In all instances there is a statistically significant difference between citizens and non-citizens. Seventy to 80 percent of non-citizens support the Democratic candidate in each measure, while less than 60 percent of citizens do.

159. The final row of the table focuses Arizona respondents to the CES and their intention to support each party's gubernatorial candidate. Those who indicated they were citizens were substantially and significantly less likely to support the Democratic candidate than those who indicated that they were non-citizens. The difference in percentages between citizens and non-citizens is larger amongst the Arizona subsample than any of the other comparisons in the table, suggesting the possibility that Arizona Republicans may have done a particularly poor job of attracting the support of non-citizens in the state. As was demonstrated by McDonald's report, these differences are also seen in the Arizona voter file. Individuals who were removed from the voter rolls or put on the Federal Only list because of issues with obtaining proof of their citizenship status were less likely to be Republican identifiers than other individuals on the voter rolls.

Table 8: Party affiliation and Presidential Candidate Support
(Numbers in parentheses are number of respondents in a particular category, e.g. total number of citizens in CES based on self-reported citizenship status with a valid response to question.)

Question	All Citizens	Non-Citizens	Difference between citizens and non-citizens
Democratic Percentage of two-party (R or D) identifiers 2012 CCES panel test, consistent citizenship status respondents only. Percentages based on weighted data using Weight-Combined.variable	58% (13,085)	82% (46)	24%**
Democratic Percentage of two-party (R or D) identifiers 2006 to 2022 CCES cross-sectional. Percentages based on weighted data using weight variable	55.3% (358,444)	72.8% (6076)	17.4%**
Approval of President Obama 2012 CCES panel test, consistent citizenship status respondents only. Percentages based on weighted data using Weight-Combined.variable	51% (19,072)	81% (80)	30%**
Percentage supporting Obama versus Romney two-candidate preferences only 2012 CCES cross-section pre-election survey.	54% (46,504)	80% (513)	26%**
Percentage supporting Democratic Presidential Candidate (major party preferences only) 2008 through 2020 CES cross-section presidential year pre-election surveys. Weighted by Weight variable	53% (157,849)	76.5% (1511)	24%**
Percentage supporting Arizona Democratic Gubernatorial Candidate (major party preferences only) 2006 through 2022 CES data. Weighted by weight.	47% (5133)	81% (74)	34%**

**Statistically significant difference p<0.001 * Statistically significant difference p<0.05 Chi square test.

Data sources: CES Cumulative Data File by Kuriwaki, Shiro, 2023, "Cumulative CES Common Content", https://doi.org/10.7910/DVN/II2DB6, Harvard Dataverse, V8, and CCES 2010-2012 Panel Study.

160. To sum up this section, the survey evidence, and evidence from the Arizona voter rolls all points towards the same conclusion. The political attitudes of non-citizens are different from those of citizens. Non-citizens are more likely to support more generous immigration

policies. They are also less likely to support Republican candidates and are less likely to identify as Republicans.

2.1.2 Could non-citizen participation change election results? How much participation would be required?

161. Nearly twenty years ago, the Carter Baker commission met to discuss reforms to US election laws. In the commission's report there is a discussion of election fraud and the extent of fraud required to change election outcomes. The commission wrote that "The problem, however, is not the magnitude of the fraud. In close or disputed elections, and there are many, a small amount of fraud could make the margin of difference."[24]

162. Simulations can help address the question of how much non-citizen participation would be required to change election outcomes in US elections. In addition to the number of non-citizens, two basic variables influence whether non-citizen participation might change election outcomes: the extent to which non-citizens hold views different from citizens, and the rate at which non-citizens participate. If non-citizens hold views very similar to those of citizens, then non-citizen participation is less likely to change outcomes, even if many non-citizens participate.[25]

163. Before proceeding, it is also important to acknowledge that sometimes ridiculous and exaggerated claims are made about the extent to which non-citizen participation could or has changed election outcomes. For instance, after winning the 2016 presidential election in the Electoral College, Donald Trump argued that his popular vote loss of several million votes was due to the involvement of non-citizens in the election. I wrote on my website about how unlikely this was to be the case in November 2016 using a similar simulation approach to the one I apply below.[26] The assumptions about how much non-citizen participation there would have to be, and how strongly that participation would have to tilt towards the Democratic candidate in order for kind of claims Trump and some of his supporters were making to be plausible simply didn't seem to me to be based upon the evidence I had available at that time, and I made this clear in my interactions with fact checkers and the press more generally.

164. But the existence of hyped and overstated claims should not distract us from a reasoned analysis of the conditions under which non-citizen participation could in fact change

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[24] Report of the Commission of Federal Election Reform. 2005. *Building Confidence in US Elections*. Page 18.

[25] Of course the only standard for whether states should take actions to detect and prevent non-citizen registration and voting cannot be changing election outcomes: public perceptions of the quality of election administration and the extent of illegal voting, among other issues could also be of substantial importance.

[26] https://fs.wp.odu.edu/jrichman/2016/11/28/is-it-plausible-that-non-citizen-votes-account-for-the-entire-margin-of-trumps-popular-vote-loss-to-clinton/

election outcomes. To illustrate these conditions in terms of the number of non-citizens, their likelihood of voting, and their support for candidates, let's consider a series of hypothetical thought experiments using an election with a 100 vote margin for the winning Democratic candidate (Table 9). This can be readily extrapolated to different margins if desired. For instance, by multiplying by 2 one would get a table appropriate for a 200 vote margin.

165. There have been very close elections in recent Arizona history[27] but I emphasize that this is a hypothetical thought experiment, and I am not offering an opinion one way or the other at this point concerning whether non-citizens made up the margin for the winning candidate in any specific election. The point of this exercise is that whether non-citizen participation could have accounted for any given margin depends upon how much if at all the Democrat was favored by non-citizens over the Republican, and on how many non-citizens participated.

166. The total number of non-citizens of voting age in Arizona is approximately 449,013 according to the 2022 vintage ACS estimate.[28] Thus, for every 0.1 percent voter participation by Arizona non-citizens, approximately 449 additional votes would be cast. How many additional votes this might translate into for the Democrat candidate depends upon whether and to what extent the Democrat received more support than the Republican among non-citizens.

Table 9. Hypothetical Levels of non-citizen participation and extent of non-citizen support for Democrat over Republican for non-citizen votes to account for an electoral margin of 100 votes

Hypothetical total number of AZ voting-age non-citizens voting	Hypothetical percentage of AZ non-citizens voting	Hypothetical percentage gain for Democrat (Democrat % - Republican %) among non-citizens
100	0.022%	100%
167	0.037%	60%
200	0.045%	50%
250	0.056%	40%
333	0.074%	30%
500	0.111%	20%
1,000	0.223%	10%
10,000	2.227%	1%

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[27] For instance in 2022 the final vote count after the recount found that "Mayes finished 280 votes ahead of Hamadeh" in the race for Attorney General. https://www.fox10phoenix.com/news/2022-election-recount-results-released.
[28] https://data.census.gov/table?q=Citizenship+Status+in+the+United+States+by+age&g=040XX00US04&tid=ACSST1Y2022.S2901

167. In the table above, any of the hypothetical combinations simulated would lead to non-citizens casting 100 more votes for the Democrat than the Republican and thereby making up the difference. For instance, if 55 percent of non-citizens who voted supported the Democrat and 45 percent supported the Republican, then at least 1,000 non-citizens would have to vote to account for the entirety of the vote margin. (Obviously, any increase in one percentage not accompanied by a parallel decrease in the other percentage would produce a larger number of votes for the Democrat versus the Republican. Conversely, any decrease in one of the percentages not accompanied by an increase in the other would lead to non-citizens giving the Democrat less than a 100 vote margin.)

168. How many non-citizens would in fact have had to vote to change the outcome of an election in Arizona? A reasonable guess based upon the Arizona gubernatorial election survey data analyzed above, might be that 4 in 5 non-citizens would vote for the Democratic candidate in a state-wide race, and 1 in 5 for the Republican. This is associated with a 60% hypothetical percentage gain for the Democrat (in other words an increase in Democrat' margin by 0.6 votes on average for every additional non-citizen who participated). Thus approximately 167 Arizona non-citizens would have had to vote in the race to account for the entire hypothetical 100 vote margin between the candidates. This is approximately 0.037% percent of Arizona's adult non-citizen population or 37 out of every 100,000 adult non-citizens in the state.

169. Obviously this percentage can be extrapolated up or down. So, for an election decided by one vote, 0.00037% would need to vote. Not to belabor this point, but it is important to remember in the context of the various calculations Minnite provides (e.g. 40 individuals out of numbers of total votes cast on page 12) that even 40 individuals could change the outcome of an election if the election was close enough. Table 9 and the extrapolations that can be made from it provide an important reality check on this mode of argument. Even a very low level of illegal voting can be highly consequential in a sufficiently close election.

170. Before leaving this hypothetical, it is also important to highlight that **the restrictions on non-citizen registration and DPOC requirements Arizona has attempted to put in place over the years likely mean that the odds of an Arizona election, especially a state rather than federal election outcome, being shaped by non-citizen participation are probably lower in Arizona than in many states** with similar non-citizen shares of the state population. **But this doesn't necessarily make the case for removal of those restrictions, nor for not strengthening those provisions.** Removal or weakening of these requirements would logically have to increase the risk that close election outcomes would be shaped by non-citizens' votes based upon the calculus of voting theoretical framework as discussed below in section 2.2.1. Similarly, the more limited requirements for individuals to qualify as Federal-only registrants mean that non-citizen participation is probably less restricted and more likely in Federal elections in Arizona. I will return to this discussion below.

171. There is one additional point that must be made before we leave this discussion of hypothetical elections and margins: we must compare relative impacts. It is obvious from Table 9 above that the raw number of voters impacted by some rule may have very different impacts on election outcomes, conditioned by the degree to which the impacted voters have distinctive views relative to others. Let's take an extreme hypothetical in order to make the point clear. In the top row of the table, 100 individuals have as much impact on election outcomes as 10,000 do in the bottom row. The difference? The 100 vote as a block whereas out of every two hundred of the others, 99 support one candidate and 101 support the other.

172. The main point of this subsection is that the potential electoral impact of non-citizens depends on both how many non-citizens vote and on their political viewpoints. Because, as I argued above, there is evidence that non-citizens hold distinct political views from citizens, there is a potential for non-citizen participation to change election outcomes in something well beyond a random way, at least for elections that are close enough, provided a sufficient number of non-citizens participate. The next sections will examine several different kinds of evidence concerning the extent to which non-citizens register to vote and participate in US elections.

2.2. Do non-citizens participate in the US election system?

173. Because this case focuses on voter registration requirements, I focus my analysis below principally on voter registration rather than voting. However, the two are linked. In his expert report for this case, McDonald wrote "A seminal scholarly article on the subject is aptly entitled, "Why Do People Vote? Because They Are Registered." (McDonald page 72). Registration is an essential precondition for voting in most parts of the United States.

174. This section begins with a discussion of the theory of the costs and benefits of voting, and the way non-citizen participation fits into that framework. It then examines a series of different types of data useful for estimating the extent to which non-citizens register to vote in the United States. I will examine data based upon court, administrative records, and survey data, sometimes combinations of more than one kind of data.

2.2.1. Calculus of voting – why non-citizen registration and voting can be rational

175. Higher costs of participation for non-citizens will reduce participation (e.g. of voting), but are unlikely to eliminate it. As already noted above in my response to McDonald's use of the theory, one of the basic theoretical frameworks with which political scientists think about the decision to vote envisions voters weighing the costs and benefits of voting, and on this basis making the decision to vote. This is the so called "calculus of voting" presented by Anthony Downs and refined by Riker and Ordeshook in their classic paper.[29] Here I simulate the Riker and Ordeshook equation to show that even much higher costs will not necessarily prevent all non-citizens from registering and voting.

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[29] Riker, W. H., & Ordeshook, P. C. (1968). A Theory of the Calculus of Voting. *The American Political Science Review*, *62*(1), 25–42. https://doi.org/10.2307/1953324

The calculus of voting formula of Riker and Ordeshook has the following terms:

R - the utility of voting. If it is positive (or at least non-negative) then the individual will choose to vote.

P – the probability that an individual's vote will change an election outcome.

B – the relative benefit of the preferred candidate winning relative to other candidates. More recent work highlights the importance of considering the ways in which this term may incorporate expected social benefits.[30]

C – the cost of voting.

D – other benefits of voting not contingent upon the election outcome such as a sense of enjoyment or satisfaction at completing one's civic duty. These are combined in an equation as follows:

$R = P(B) – C + D$.

176. How might this 'calculus of voting' apply to non-citizens? And how could their participation be simulated using it?

177. The P term is conditioned by the election environment itself: when an election is expected to be close, the probability that one's vote will change the election outcome is higher. While perceptions of election closeness may vary, there is little reason to expect systematic differences between citizens and non-citizens. Edlin et. al. in their 2007 paper "Voting as a Rational Choice" argue that $10/n$ is a reasonable approximation of this probability. Since between 2.5 and 3 million voters have cast ballots in recent statewide elections in Arizona, I will set n at 2.7 million for the purposes of the simulation below.

178. The term B will vary idiosyncratically for individuals depending upon their own political views and the views of the candidates. However, given the distinctive views held by non-citizens concerning immigration policy, it is possible that for some non-citizens the B term is higher than average. On the other hand, many immigrants are focused on more immediate issues than politics, so relative inattention to politics might mean that B is lower. Again, there isn't much reason to expect systematic differences between citizens and non-citizens here. In the simulation below I model B using a chi square distribution with 100 degrees of freedom.

179. The C term is another matter. Potentially the costs of voting are much higher for non-citizens. Registration and voting while a non-citizen remain illegal in most parts of the United States. Therefore, registering to vote and casting a ballot present unique risks for non-citizens relative to others. To the extent that individuals think these risks are real, they

[30] Edlin, A., Gelman, A., & Kaplan, N. (2007). Voting as a Rational Choice: Why and How People Vote To Improve the Well-Being of Others. *Rationality and Society*, 19(3), 293-314. https://doi.org/10.1177/1043463107077384

may be discouraged from registering and voting. For non-citizens C is larger than for citizens. In the simulation below I examine various size costs while representing the D and B terms with random numbers.

180. The D term collects all of the non-instrumental benefits of voting. This can include simple enjoyment of voting, a sense of obligation to vote, and a desire to be included or have voice. It is possible that some components of D such as a sense of civic duty may be lower for non-citizens. On the other hand, some non-citizens (especially undocumented) might derive special benefits from voter registration because participation in the electoral process can provide a government issued document potentially useful for establishing an identity. Whether D is lower or higher for non-citizens is thus an open question. In the simulation below, I model D using a chi-square distribution with 1 degree of freedom.

181. Putting together this analysis, we would expect that *fewer* non-citizens would think it worth their effort to vote relative to citizens as the costs increase. Higher costs should discourage some non-citizens from participating.

182. However, *fewer* does not necessarily imply *zero*. Table 10 below, which is intended to illustrate a theoretical concept rather than to suggest actual rates of noncitizen participation, simulates turnout in a population of 449,013.[31] I assume that each of the terms B, and D is drawn from a chi-square distribution as discussed below and compare turnout for various levels of cost.

Table 10: Simulated Turnout as a Function of Cost of Voting

C (cost of voting)	Turnout	Percentage Turnout
0.5	214993	0.478812
1	142335	0.316995
2	70408	0.156806
3	37678	0.083913
5	11489	0.025587
8	2148	0.004784

183. The initial cost value of 0.5 generates turnout not that dissimilar from typical turnout in US elections. As cost increases, the simulated turnout diminishes, but even when the cost is 10 times as high as that initial value there are still more than eleven thousand turning out.

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[31] This is the American Community Survey 2022 one year estimate of the adult non-citizen population in Arizona
https://data.census.gov/table?q=Citizenship+Status+in+the+United+States+by+age&g=040XX00US04&tid=ACSST1Y2022.S2901

184. One key point of this analysis is that higher costs for non-citizens should diminish their electoral participation. Hence, this participation should be higher to the extent that such participation is not illegal, and to the extent that enforcement of any legal barriers to registration and voting is minimal. Thus, the calculus of voting equation clearly implies that reducing barriers to non-citizen participation (such as by removing DPOC requirements) should increase that participation.

185. A second key point of this analysis is that even though we should expect higher costs to discourage many non-citizens from voting, variation in the extent to which individuals see benefits from participation will continue to generate non-zero participation even if the costs are many times higher than those faced by other voters. The extent of the drop-off will depend upon the size and the variability in the perceived benefits (B and D) of voting.

186. The analysis above should also put to rest the false claim that the "calculus of voting" demonstrates that individual-initiated vote fraud is irrational.[32] It does nothing of the sort. Depending upon the simulated values of P, B, D, and C in the equation, even fraud with a very low probability of influencing an election and a very high expected cost can be a rational choice. And it is obviously the case that for some individuals at least, this choice is one they make – else one would not observe that individuals are periodically convicted of the various kinds of election fraud including double-voting and voting while a non-citizen, as will be discussed next.

2.2.2. Evidence from Court Cases of Non-Citizen Registration and Voting

187. The Federal Voter Registration Application specifically threatens non-citizens who register with a series of consequences. "If I have provided false information, I may be fined, imprisoned, or (if not a U.S. citizen) deported from or refused entry to the United States."[33] For some non-citizens these warnings have been borne out in court actions which have led to punishments for registration and/or voting while a non-citizen. In a few instances the individual involved appears to have faced deportation, while in other instances this does not seem to have happened.

188. Minnite's discussion of non-citizen voting focuses almost exclusively on court records. Evidence of non-citizen registration derived from court cases provides a minimal floor on the number of non-citizens who engage with the US electoral system. It proves the existence of the phenomenon, but provides a very limited basis for assessing its frequency.

189. There are good reasons to think that many more instances of non-citizen involvement with the electoral system exist than those which have led to the court cases summarized by Minnite and below in this document. Efforts to detect non-citizen registration and voting

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[32] See for instance Minnite, Lorraine C. 2010. The Myth of Voter Fraud. Ithaca, NY: Cornell University Press.

[33] https://www.eac.gov/sites/default/files/eac_assets/1/6/Federal_Voter_Registration_ENG.pdf

face several failure points where a non-citizen who has registered to vote might evade conviction.

- Detection of non-citizen registration is difficult. In many states election registrars rely upon the affirmation of citizenship in the voter registration form as their primary means of ascertaining citizenship. No further checks may take place, and the non-citizen may remain undetected on the voter rolls.

- Even if through some means (the cases above include administrative record checks, naturalization proceedings, and others) the existence of a non-citizen on the voter rolls is detected, prosecutors have discretion about whether to follow up on a case or not. Other events may also intervene. For instance, my understanding is that further prosecution of two individuals in Arizona currently at the warrant stage who the state believes registered and voted while non-citizens has not taken place partly because the individuals are currently fugitives. (Attorney General depo. pp 279, 25 – 280, 7)

- If a non-citizen is prosecuted, the details of the evidence in the case may govern whether the evidence is sufficiently strong, particularly as to mental state, to obtain a conviction in a particular court setting.

190. The deposition of the Arizona Attorney General makes clear that prosecution of such cases is often exceedingly difficult because state law enforcement typically lacks access to the relevant federal government databases that would allow them assess citizenship status in order to develop the case (Attorney General depo. p. 204 19-24)

> I don't know what our agency could do to verify citizenship beyond essentially going hat in hand to the federal government and saying, "Would you give us this information, please?" to which the federal government, I believe, would have been entirely -- entirely free to reject our request altogether.

These difficulties which were returned to at other points in the deposition (e.g. pp 273-275) also highlight how unlikely it is that *non-citizens* will in fact be prosecuted for illegally registering and voting even when that pattern of behavior is detected by state authorities.

191. Another reason convictions are almost surely an undercount of the magnitude of the phenomenon is that for the most part, non-citizen registration to vote and voting are crimes without knowledgeable victims to report it or even trigger an investigation. The only one who typically knows about it is the non-citizen who did the registration or cast the vote. An imperfect analogy is criminal activity involving use of a controlled substance. In both instances, most of the activity takes place in contexts in which there is no one present with a motive to report. Consider for instance that a decade ago (before most decriminalization took place, survey data indicated that more than six percent of the US population used marijuana on a monthly or more frequent basis. In 2010, SAMHSA survey estimates indicated that 22.6 million people over the age of 12 used illicit drugs.[34] In that year, however, the number of arrests for drug violations was only 1.6 million, and since some of

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[34] https://www.samhsa.gov/data/sites/default/files/NSDUHresults2010/NSDUHresults2010.pdf

those arrests likely involved repeat arrests of the same individual, the total number of people arrested was likely even lower.[35] Another relevant comparison is the level of cheating by students. Very few students are expelled from universities for plagiarism or other cheating compared to the number who admit to the practices in surveys.

192. Non-citizen registration and voting is even more likely to go unreported, however. Identification of the crime requires that several distinct pieces of information be brought together. Unlike possession of a controlled substance, for which possession is obviously visible to a public authority in a search, or marketing of a controlled substance in which the act of selling can generate visibility, knowledge of whether an individual is registered to vote typically requires access to voter registration databases. And knowledge of whether someone is a non-citizen requires access to other databases (and even then can be difficult to establish with certainty.) Except in extraordinary circumstances, no one will detect non-citizen registration and voting who has not specifically gone looking for it. And even when looking for it, access to the requisite data can be difficult to obtain.

193. Even a state like Arizona which has long been a leader nationally in the effort to design an election system resistant to illegal voting by non-citizens does not seem to have engaged in a systematic process of examining its voter rolls to identify potentially illegally registered non-citizens.

194. One of the largest efforts to collect data on election law violations and convictions in the United States is a database maintained by the Heritage Foundation.

195. From Minnite's expert report one might easily get the misimpression that this database contains no information about illegal voting by non-citizens. Minnite states that "The Heritage Foundation does not classify its election fraud data in a way that would allow for identifying whether cases involve illegal or fraudulent voting by non-citizens." (p. 45). She also states that "There is *no* record of non-citizens illegally registering or voting in the Heritage Foundation's database." (p. 45, emphasis in the original). The table below is evidence that this is not the case. While the database does not contain a specific category for non-citizen voting, it does contain a slightly broader category of illegal voting. The primary types of illegal voting included in this category are votes cast by non-citizens and votes cast by felons who have not had their voting rights restored. Within this category most descriptions make clear what type of illegal voting occurred. In the selection below I have limited myself to cases where the description clearly identifies electoral participation by a non-citizen.

196. Contrary to Minnite's claim, I used the database to identify 70 cases involving registration or voting by non-citizens that are listed in the table below. Table 11 provides 70 examples of court cases in which non-citizens were convicted on charges related to their involvement

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[35] https://ucr.fbi.gov/crime-in-the-u.s/2010/crime-in-the-u.s.-2010/tables/10tbl29.xls

with the US electoral system. The cases range in time from 2002 through 2019. Case summaries and links to further information in the table come from public dataset maintained by the Heritage Foundation at https://www.heritage.org/voterfraud.

Table 11: Examples of Non-Citizen Voting and Registration Court Cases

State and Year	Details	References to more information
2019 California	Gustavo Araujo Lerma, a Mexican citizen who resides in Sacramento County, illegally assumed the identity of American citizen Hiram Enrique Velez, and illegally voted repeatedly over two decades. Lerma was convicted in federal court of one count of aggravated identity theft, one count of making a false statement on a passport application, and five counts of voting by an alien in a federal election. Lerma, a self-described Republican donor and ardent Trump supporter was sentenced to three years and nine months in prison.	Source: bit.ly/323ErD1,
2019 North Carolina	Denslo Allen Paige, of Wake County was found guilty of aiding and abetting voting by an alien. Paige, a volunteer and former election official, was found to have assisted her boyfriend, Guadalupe Espinosa-Pena, a non-citizen, to register and vote in the 2016 general election. She pleaded guilty and was sentenced to two months in prison, one year of probation, and $275 in fines.	Source: https://herit.ag/3rCK35b
2019 Ohio	Yaakov M. Schulman, of Columbus, was found guilty of illegal voting for voting as an alien. Schulman was charged with one count of false election registration and one count of illegal voting, and was found gulty of illegal voting, a fourth degree felony, by a jury. He was sentenced to community control (probation) for two years, ordered to complete cognitive behavioral programming, and was ordered to pay a $2,500 fine and $1,812 in court fees.	Source: https://herit.ag/3kYebqx, Case no. 17 CR 005021
2018 Illinois	Yvette Yust, a resident of Waukegan, claimed to be a citizen in order to vote in the 2016 presidential election. Yust was charged with two felony counts of perjury, but, as part of a plea agreement, pleaded guilty to a misdemeanor disorderly conduct charge. Yust was sentenced to six months of probation and ordered to pay a $200 fine and to complete 20 hours of community service.	Source: trib.in/2zdkpt9, bit.ly/2zfRy7E
2018 Illinois	Marcello Villaruz and his wife Gina claimed to be U.S. citizens when they voted in the 2016 presidential election. Marcello was charged with two felony counts of perjury, but, as part of a plea agreement, pleaded guilty to a misdemeanor disorderly conduct charge. Marcello Villaruz was sentenced to six months of probation and ordered to pay a $200 fine and to complete 20 hours of community service.	Source: https://herit.ag/3rAO2za, bit.ly/2zfRy7E

2018 Illinois	Marcello Villaruz and his wife Gina claimed to be U.S. citizens when they voted in the 2016 presidential election. Marcello was charged with two felony counts of perjury, but, as part of a plea agreement, pleaded guilty to a misdemeanor disorderly conduct charge. Marcello Villaruz was sentenced to six months of probation and ordered to pay a $200 fine and to complete 20 hours of community service.	Source: https://herit. ag/3rAO2za, bit.ly/2zfRy7E
2018 Maryland	Michael Nana Baako, of Ghana, a non-citizen and therefore an ineligible voter, voted 10 times in federal elections. Baako was charged with four counts of passport fraud, illegally voting by an alien, falsely claiming U.S. citizenship and federal passport fraud charge. He pleaded guilty to a federal passport fraud charge and was sentenced to 15 months' imprisonment, followed by 3 years of supervised release.	Source: https://herit. ag/3x5RqTN, Case Number: GC15007564-00
2018 North Carolina	Jose Jaime Ramiro-Torres, of El Salvador, pleaded guilty to a charge of illegal voting by an alien. Ramiro-Torres was one of nineteen non-citizens prosecuted in the Eastern District of North Carolina for illegally voting in the 2016 election. He was ordered to pay a $100 fine and a $25 special assessment.	Source: Case No. 2:18-cr-00029-BO, https://herit.ag/2Vdc ef8, https://herit.ag/2V8 DISZ
2018 North Carolina	Alessandro Cannizzaro, of Italy, pleaded guilty to a charge of illegal voting by an alien. Cannizzaro was one of nineteen non-citizens prosecuted in the Eastern District of North Carolina for illegally voting in the 2016 election. Cannizzaro was ordered to pay a $200 fine and a $10 special assessment.	Source: Case No. 5:18-cr-00328-BO, https://herit.ag/3iQE fBf, https://herit.ag/3BP BPeH
2018 North Carolina	Dieudonne Soifils, of Haiti, pleaded guilty to a charge of illegal voting by an alien. Soifils was one of nineteen non-citizens prosecuted in the Eastern District of North Carolina for illegally voting in the 2016 election. Soifils is awaiting sentencing.	Source: Case No. 4:18-cr-00045-FL, https://herit.ag/3idfs s9, https://herit.ag/2UX ZPvw
2018 North Carolina	Guadalupe Espinosa-Pena, a lawful permanent resident, was assisted by his girlfriend Denslo Allen Paige, a former poll worker, in making a false claim of citizenship and illegal voting. He was found guilty of one count of illegal voting by an alien and was sentenced to one month in prison and a year of probation.	Source: https://herit. ag/3y86sdj

2018 North Carolina	Roberto Hernandez-Cuarenta voted in both the 2012 and 2016 presidential elections despite not being a citizen. Hernandez-Cuarenta, a Mexican citizen, was granted a Special Agricultural Worker application in 1992 and had since acquired permanent resident status. He was convicted on two charges of voting by an alien, and was sentenced to time served, which amounted to four months of incarceration.	Source: https://herit.ag/3x7xVdL, https://herit.ag/3l3BY8j
2018 North Carolina	Merious Jean, of Haiti, pleaded guilty to a charge of illegal voting by an alien. Jean was one of nineteen non-citizens prosecuted in the Eastern District of North Carolina for illegally voting in the 2016 election. He was ordered to pay a $100 fine and a $25 special assessment.	Source: Case No. 5:18-cr-00327-BO, https://herit.ag/2TCcHa3, https://herit.ag/3rCeSac
2018 North Carolina	Maria Rufina Castillo-Boswell, of the Philippines, pleaded guilty to one count of voting by an alien. She was one of nineteen non-citizens prosecuted in the Eastern District of North Carolina for illegally voting in the 2016 election. Castillo-Boswell also faced a second charge that she falsely claimed citizenship in order to register to vote, but that charge was dropped as part of a plea agreement. She was sentenced to one year of probation and fined $600.	Source: Case No. 7:18-cr-00135-D, https://herit.ag/3y85HAJ, https://herit.ag/3zFegn5, herit.ag/44PYKUr
2018 North Carolina	Daniel Tadeusz Romanowski, of Poland, pleaded guilty to a charge of illegal voting by an alien. Romanowski was one of nineteen non-citizens prosecuted in the Eastern District of North Carolina for illegally voting in the 2016 election. He was sentenced to one year of probation and fined $1,200.	Source: Case No. 5:18-cr-00326-D, https://herit.ag/3rKEmCw, https://herit.ag/3y83Coz, herit.ag/3sRPlyv
2018 North Carolina	Dora Maybe Damata-Rodriguez, of Panama, pleaded guilty to one count of voting by an alien. She was one of nineteen non-citizens prosecuted in the Eastern District of North Carolina for illegally voting in the 2016 election. Damata-Rodriguez also faced a second charge that she falsely claimed citizenship in order to register to vote, but that charge was dropped as part of a plea agreement. She is awaiting sentencing.	Source: Case No. 7:18-cr-00133-FL, https://herit.ag/3x2G7fn, https://herit.ag/3lg7cJR
2018 North Carolina	Juan Francisco Landeros-Mireles, of Mexico, pleaded guilty to a charge of illegal voting by an alien. Landeros-Mireles was one of nineteen non-citizens prosecuted in the Eastern District of North Carolina for illegally voting in the 2016 election. He was sentenced to 2 years probation and received a $1,200 fine.	Source: Case No. 5:18-cr-00325-D, https://herit.ag/3iSpQoa, https://herit.ag/2WqEITc, herit.ag/3ZiU1cI

2018 North Carolina	Hyo Suk George, of Korea, pleaded guilty to a charge of illegal voting by an alien. George was one of nineteen non-citizens prosecuted in the Eastern District of North Carolina for illegally voting in the 2016 election. He was ordered to pay a $100 fine and a $25 special assessment.	Source: Case No. 7:18-cr-00138-BO, https://herit.ag/3i71SGB, https://herit.ag/3iTTDwH
2018 North Carolina	Jose Cruz Solano-Rodriguez, of Mexico, pleaded guilty to one count of voting by an alien. He was one of nineteen non-citizens prosecuted in the Eastern District of North Carolina for illegally voting in the 2016 election. Solano-Rodriguez also faced a second charge that he falsely claimed citizenship in order to register to vote, but that charge was dropped as part of a plea agreement. Solano-Rodriguez was ordered to pay a $100 fine and a $25 special assessment.	Source: Case No. 2:18-cr-00029-BO, https://herit.ag/3zLTNNz, https://herit.ag/2ULKPB9, https://herit.ag/3x7rxTU
2018 North Carolina	Ramon Esteban Paez-Jerez, of the Dominican Republic, pleaded guilty to two charges of passport fraud and illegal voting by an alien. Paez-Jerez was one of nineteen non-citizens prosecuted in the Eastern District of North Carolina for illegally voting in the 2016 election. Following Paez-Jerez's guilty plea, he was sentenced to one year's imprisonment on each charge, to be served concurrently, and three years' probation for each charge, also to be served concurrently. For each charge, he was ordered to pay a $5,500 fine and a $125 special assessment.	Source: Case No. 5:18-cr-00131-FL, https://herit.ag/3f3VwWt, https://herit.ag/3rETRvO, https://herit.ag/3710BdK
2018 Texas	Laura Janeth Garza, a Mexican citizen, pleaded guilty to two felony charges of voter impersonation and ineligible voting. Garza stole the identity of her cousin, a US citizen, in order to remain in the United States, and used it to register and vote in multiple elections, including the 2016 presidential election. Garza received a probated 10-year prison sentence, 180 days in jail, and was ordered to pay a $10,000 fine. After her jail term is completed, Garza will be deported.	Source: https://herit.ag/3i8MWYq, https://herit.ag/3l328rO

2018 Texas	Mario Obdulio Orellana, a 57-year-old Salvadoran national, was indicted in June 2018 by the Department of Justice on federal immigration and voter fraud violations. An investigation by the U.S. Attorney's office in the Eastern District of Texas revealed that Orellana illegally entered the United States in the 1980s, falsified documents to obtain a U.S. birth certificate and social security number, and then used these documents to apply for a U.S. passport and register to vote. His five-count indictment included voter fraud charges related to his voting in the November 2016 election. As part of a plea agreement, Orellana pleaded guilty to making false statements in a U.S. passport application in exchange for the other charges being dropped. He faces up to 10 years in federal prison.	Source: https://herit.ag/2TEI8AL, https://herit.ag/3BWg0KP, https://herit.ag/3iV3n9P
2017 Illinois	Miguel Valencia-Sandoval, an illegal immigrant from Mexico, admitted that he paid $50,000 in March 2005 for the birth certificate of a Texas man, Ramiro Guerrero-Vasquez. Using that stolen identity, he resided in Champaign County, IL for the past eleven years. His false identity was discovered when he applied for a U.S. passport in 2012 and made a false statement of U.S. citizenship on the application. Further investigation revealed he similarly made a false claim of citizenship on a voter registration application and voted in elections in 2012, 2014, and 2016. Valencia-Sandoval pleaded guilty to five counts, four of which relate to voting while not a citizen. After spending a year in jail following his apprehension for trying to illegally re-enter the United States, he was sentenced to time served in January 2018. He will be deported back to Mexico.	Source: https://herit.ag/373gEI3, https://herit.ag/3zIkrGU, https://herit.ag/3y9ytBa, https://herit.ag/3rAHy3o
2017 Kansas	Peruvian national Victor David Garcia Bebek pleaded guilty to three counts of voting without being qualified. Bebek was fined $5,000 and placed on unsupervised probation.	Source: https://herit.ag/3zMyo6Z, https://herit.ag/3y85BsR, https://herit.ag/3rDWrSx
2017 Maryland	"John Doe," a likely illegal alien whose real name and country of origin remain unknown, stole the identity of Cheyenne Moody Davis, a U.S. citizen, and used it to obtain a driver's license, passport, and Social Security card. He also registered and successfuly voted in the 2016 presidential election. Doe was convicted on two counts of voter fraud, as well as aggravated identity theft and passport and social security fraud. He was sentenced to serve 42 months in prison.	Source: https://herit.ag/3x8iL7S, https://herit.ag/3l1N26b

2017 Missouri	Leonardo Lleras-Rodriguez, a Cuban national who lives in Kansas City, MO was indicted and pleaded guilty to separate federal charges of casting a fraudulent election ballot and aiding and assisting the preparation of false income tax returns. Lleras-Rodriguez, a non-citizen, voted illegally in six elections between 2010 and 2014. Additionally, he prepared three fraudulent tax returns in 2014 and another 45 fraudulent returns between 2012-2014, defrauding the United States an estimated $134,898. He is awaiting sentencing.	Source: https://herit.ag/3i9ueA6 , https://herit.ag/3iXLHL3
2017 Ohio	Konstantinos Mouzos pleaded guilty to illegally voting in the 2016 election without being a U.S. citizen. He was sentenced to one year probation following a reduction in charges from one count of illegal voting, a felony, to a misdemeanor of attempted illegal voting. This illegal conduct was uncovered during an annual review by the Ohio Secretary of State of the state's voter registration database in order to identify non-citizens who are registered to vote by comparing information with the Bureau of Motor Vehicles. The Secretary of State's office identified 426 non-citizens who were registered to vote in 2016; 82 of these individuals appear to have voted and have been referred to law enforcement authorities.	Source: https://herit.ag/2VgR6og, https://herit.ag/3y7H5IA
2017 Ohio	Awais Jamil, of Roseville, registered and voted in Muskingum County in the 2016 general election despite not being a U.S. citizen. Jamil, an immigrant from Pakistan, initially indicated in documents submitted to the Ohio Bureau of Motor Vehicles that he was not a U.S. citizen. The state nevertheless sent him a voter registration packet, at which point he falsely identified himself as a citizen in order to register. He pleaded guilty to illegal voting, a fourth-degree felony, and was sentenced to one year of probation, with an underlying sentence of 14 months in prison. Jamil now faces possible deportation as a result of his felony conviction.	Source: https://herit.ag/3hNY9wW, https://herit.ag/3EC8KVu
2017 Ohio	Carmen Lockhart, an alien, was charged by the state with one felony count of ineligible voting after voting in the 2012 General Election in Hamilton County. Lockhart agreed to plead guilty to a misdemeanor charge of obstructing official business in exchange for a dismissal of the felony charge. She was sentenced to community control for two years (and advised that the court would sentence her to 90 days in jail for noncompliance), ordered to pay court costs or perform community service in lieu of costs, ordered to pay a $25 public defender fee, and ordered to complete 40 hours of community service, unless working full time.	Source: https://herit.ag/3XjDfYZ , https://herit.ag/3Zr9nMg , https://herit.ag/3k3aYaI , https://herit.ag/3Qrtcin

2017 Texas	Rosa Maria Ortega, a non-citizen, was found guilty on two counts of voting in the November 2012 general election and the 2014 Republican primary runoff. Ortega claimed she thought she was a citizen and blamed her lack of education for the mix-up, but prosecutors pointed out that Ortega had previously indicated on a drivers license application that she was a non-citizen. A judge sentenced her to eight years' imprisonment, after which she faces the possibility of deportation.	Source: https://herit.ag/3l22q2j, https://herit.ag/3x5RkeT, https://herit.ag/3zIkxOM
2016 Wisconsin	Nebi Ademi, 63, a native of Macedonia who resides in Chippewa Falls, successfully cast a ballot in the April 2016 primary election, despite his status as a non-citizen. Ademi filled out a same-day registration, leaving blank the question about his citizenship. District Attorney Steve Gibbs noted that poll workers "should have caught this" and recommended, based on his determination that Ademi had not deliberately broken the law, that the charges against him be changed from election fraud to disorderly conduct. Ademi pleaded no contest. He was ordered to pay $443 in court costs.	Source: bit.ly/2lwffRw, bit.ly/2lpUgSk
2014 Iowa	In 2014, Abel Hernandez-Labra, an illegal alien from Mexico, pleaded guilty to making false statements in a passport application, aggravated identity theft, making a false claim of U.S. citizenship to register to vote, and voting in the 2012 general election. He was sentenced to 51 months in prison, 3 years of supervised release, and fined $5,000.	Source: https://herit.ag/3l5Qgp4, https://herit.ag/2VheVMp, https://herit.ag/2UXQ6p3
2014 Iowa	Mayra Alejandra Lopez Morales pleaded guilty to an aggravated misdemeanor charge for registering and voting as a non-U.S. citizen in the 2012 election. She received a deferred judgment with two years of probation and a $750 fine.	Source: https://herit.ag/3iOfV2S
2014 Maryland	Fredericus Slicher, a registered sex offender and illegal alien, pleaded guilty to ineligible voting in the 2012 election as well as several other criminal charges. He had been illegally voting in federal and state elections since 1976. He was sentenced to serve three months in jail, one year of supervised release, and ordered to pay $49,928 in restitution for illegally collected Social Security and Medicare benefits.	Source: https://herit.ag/3xiBGgF, https://herit.ag/3mftA5Q
2014 Nevada	Hortencia Segura-Munoz, an illegal immigrant living in Washoe County, Nevada, registered to vote under a false name and cast ballots in the 2008 and 2010 Nevada elections. She was convicted and was sentenced to time served (103 days in jail) and $1,000 in costs and fees.	Source: https://herit.ag/3x92Juo

2014 Ohio	Jean Gobeil, a Canadian citizen, admitted that he illegally registered to vote while registing his car in Ohio and then voted in the 2012 election. Gobeil was originally charged with illegal voting, but as part of a plea bargain, the charges were reduced to obstruction of justice. He received a 90 day suspended jail sentence.	Source: https://herit.ag/2WqEPOC, https://herit.ag/3eYmLBB
2014 Ohio	Bernus Charmont, a non-citizen, admitted to illegally voting in the 2012 election. As part of a plea bargain, the charges were reduced to falsification. Common Pleas Court Judge Leslie Ghiz sentenced Charmont to one year of probation and ordered him to pay a $1,000 fine and court costs.	Source: https://herit.ag/2VcrN6D, https://herit.ag/3zBr0em
2013 Iowa	Tehvedin Murgic, a convicted felon and Bosnian citizen who voted in the 2010 general election, pleaded guilty to third-degree election misconduct for interfering or attempting to interfere with a voter while the voter was filling out a ballot. He also pleaded guilty to trespassing and was fined $1,325.	Source: https://herit.ag/3zFrwbb
2013 Michigan	Dilsa Maria Saddler, of Berrien Springs, was convicted of conspiracy to commit election fraud. She registered to vote and voted in the 2008 general election, even though she was ineligible because she is not a U.S. citizen. She was sentenced to 10 days in jail, 100 hours of community service, and $750 in fines and court costs.	Source: https://herit.ag/3vTcEW7
2012 Alabama	Venustiano Hernandez-Hernandez, an illegal immigrant, registered to vote under the name Severo Benavidez in 1984 and voted in the 1996 and 2008 general elections, the 2002 primary election, and special elections in 2003 and 2009. After being deported in 1974, he obtained a false birth certificate, which he used to collect Social Security disability benefits and register to vote. As part of a plea deal, Hernandez-Hernandez admitted to having committed all of the charged conduct, and pleaded guilty to social security fraud and theft of public money (the voter fraud charges were dropped in exchange for his plea to the other charges). Prosecutors surmised that Hernandez-Hernandez received approximately $80,000 in disability payments between 2008 and 2012. As a result of his stolen identity, the real Severo Benevidez was denied Social Security payments. Hernandez-Hernandez was scheduled to be sentenced on December 17, 2012.	Source: https://herit.ag/3x7xLDb, https://herit.ag/3zGwEff
2012 California	Ricardo Lopez-Munguia, a Mexican who was deported decades ago for drug trafficking, pleaded guilty to living illegally in Escondido under a false identity and fraudulently voting in the 2008 U.S. presidential election.	Source: https://herit.ag/2TE5eHH

2012 Florida	Josef Sever was charged and convicted of illegal voting. Sever was a Canadian citizen who nonetheless cast a ballot in two presidential elections. He also lied about his citizenship status to obtain a firearm. He was convicted and sentenced to five months in prison and almost certain deportation to Canada.	Source: https://herit.ag/3zMyfAt
2012 Illinois	Maria Azada, an illegal alien from the Philippines living in Illinois, was convicted of eleven charges--perjury and mutilation of election material--in relation to illegal voting. Despite being ineligible, Azada voted nine different times in various elections and claimed to be a U.S. citizen on two voter registration forms. She was sentenced to 120 days in jail, two years' conditional discharge, and 100 hours of community service.	Source: https://herit.ag/3zBqYmK
2012 Illinois	Mahmoud Vakili, an Iranian citizen living in Waukegan, Illinois, pleaded guilty to disregarding the election code after he registered to vote and voted five times, despite the fact that he is not a U.S. citizen and is therefore not eligible to vote. He was sentenced to 12 months of supervision and 100 hours of community service, and was required to pay court costs.	Source: https://herit.ag/3iTfUdZ
2012 Illinois	Parvin Vakili, an Iranian citizen living in Waukegan, Illinois, pleaded guilty to disregarding the election code after she registered to vote and voted seven times despite the fact that she was not a U.S. citizen and was therefore not eligible to vote. She was sentenced to 12 months' supervision and 100 hours of community service, and was ordered to pay court costs.	Source: https://herit.ag/3f1dDwn
2012 Texas	Jacob Barac pleaded guilty to misdemeanor charges after admitting that he signed a voter application attesting to his citizenship despite his permanent resident status, which made him ineligible to vote. Barac claimed that he had requested the ballot so that his roommate could vote, and then filled it out himself. He was sentenced to five years of supervised probation and 40 hours of community service.	Source: https://herit.ag/3rB1Qdd
2011 Alaska	Alvaro Jimenez-Aguilar, an illegal alien who overstayed his visitor's visa, was convicted of falsely claiming to be a U.S. citizen and filing a false Social Security application. He had assumed the identity of his deceased nephew by obtaining his birth certificate and other documents and applying for other documentation and benefits. He also registered to vote in Alaska under his nephew's name, despite being ineligible because he is not a U.S. citizen. Jimenez-Aguilar was sentenced to time served and one year of supervised release, and his case was transferred to Immigration and Customs Enforcement to be processed for deportation.	Source: https://herit. ag/2VjqhzS, https://herit.ag/3ybq Fid

2011 Iowa	Christopher Mettin, a German citizen studying at Morningside College in Iowa, claimed to be a U.S. citizen on a voter registration form. He pleaded guilty to one of the two counts he was charged with and was sentenced to time already served (52 days), and turned over to U.S. Immigration and Customs Enforcement.	Source: https://herit.ag/3CiQTl4
2011 New Jersey	Cristobal Calix, a Honduran citizen, came to the U.S. in 1976 and became a lawful permanent resident in 1980.When he applied for naturalization in 2004, he admitted to voting in the 2004 general election. Voting records showed he also voted in 14 other elections between 1984 and 1996. An immigration judge determined that Calix was removable because he had illegally registered and voted in the 2004 election, a decision which was upheld on appeal by the Third Circuit.	Source: https://herit.ag/3iWVLni
2009 Illinois	Margarita Del Pilar Fitzpatrick is a native and citizen of Peru who became a non-citizen permanent resident in 2004. When she applied for a driver's license, Fitzpatrick also filled out a "Motor Voter" registration form on which she falsely claimed to be a U.S. citizen. She subsequently voted in the 2006 federal election. In 2007, while applying for naturalization, Fitzpatrick acknowledged to immigration officials that she had registered and voted. Fitzpatrick's application was denied and she was ordered removed from the country because of this violation.	Source: https://herit.ag/3i4ocAG, https://herit.ag/3l1MWLR, https://herit.ag/3xbrupU
2009 Illinois	Anthony Kimani, a citizen of Kenya, illegally registered and voted in the 2004 general election. Kimani first entered the United States on a visitor's visa, which expired in 2000. He remained in the country illegally, later applying for permanent residency after marrying a U.S. citizen in 2003. Kimani was ordered deported after officials discovered his illegal vote. Kimani admitted to voting, but claimed "entrapment by estoppel," specifically indicating that the form he filled out for a driver's license included an option to register to vote. The three judge panel on the Seventh Circuit rejected the argument, pointing out that Kimani had falsely claimed U.S. citizenship on that form, and affirmed his deportation.	Source: https://herit.ag/377vBZH, https://herit.ag/2ZoOFm4

2007 Illinois	Elizabeth Dag Um Keathley came to the United States after marrying John Keathley, a U.S. citizen, in a ceremony that took place in the Philippines. She received a non-immigrant K-3 visa so that she could live with her husband while waiting for a grant of permanent residency as the spouse of a U.S. citizen. While considering her application, immigration officials determined that Keathley illegally voted and ordered her removal from the country. She contends that, when applying for a driver's license, she was asked if she wished to vote. After answering "yes," the official handling her driver's license application check marked the box indicating she was a U.S. citizen. Keathley indicated she was not. The Seventh Circuit remanded the case to the lower court for further review.	Source: https://herit.ag/3zIBE3a, https://herit.ag/3y7GZkc, https://herit.ag/3nsE41b
2006 Florida	Mohsin Ali, a non-citizen, pleaded guilty to unlawful voting by an alien. Ali was sentenced to two years' probation, and ordered to pay a $1,000 fine and a $25 court fee.	Source: https://herit.ag/2WtdStB, States v. Mohsin Ali, 4:05-CR-47 (2006)
2005 Alaska	Mejorada-Lopez, a Mexican citizen, completed several voter registration applications to register to vote in Alaska and voted in the 2000, 2002, and 2004 general elections. He was charged with three counts of voting by a non-citizen in violation of 18 U.S.C. 611 and was sentenced to probation for one year after pleading guilty.	Source: United States v. Rogelio Mejorada-Lopez, No. 05-CR-074 (2005)
2005 Colorado	Ajmal Shah was convicted in 2005 on two counts of voter fraud after Shah attempted to register to vote by providing fabricated information regarding U.S. citizenship. Shah was sentenced to time served, in addition to one year of supervised release for the first count and three years of supervised release for the second count, to be served concurrently, and fined $200 in fees.	Source: https://herit.ag/3BKpp7T
2005 Florida	On May 18, 2005, a jury found Usman Ali Chaudhary, also known as Usman Ali, guilty of making a false claim regarding his citizenship status on his driver's license and voter registration applications. Chaudhary was sentenced to three years' probation, $3,000 in fines, and $100 in court costs.	Source: https://herit.ag/2UUr767
2005 Florida	In Miami-Dade County, legal permanent resident Ricardo Knight admitted to immigration officials that he had voted in the extremely close 2000 presidential election. He was convicted and sentenced to a year of probation and fined $500.	Source: https://herit.ag/3rAyxYe
2005 Florida	Egbert Rickman entered a plea of no contest to a charge that he knowingly voted in an election despite being a non-citizen. Rickman was sentenced to six months of probation and ordered to pay a $250 fine.	Source: US v. Rickman, Case #04-CR-20491 in Florida

2004 Florida	Kenneth Bennett pleaded guilty to knowingly voting in a U.S. election while not a U.S. citizen. He was sentenced to three months' probation, barred from owning a firearm, and assessed a $250 fine.	Source: U.S. v. Bennett, Case #04-CR-14048 in Florida.
2004 Florida	Elizabeth Bain Knight pleaded guilty to election fraud. She had voted in a U.S. election despite the fact that she was not a citizen. She was sentenced to three months' probation, barred from owning a firearm, and fined $250.	Source: U.S. v. Bain Knight, Case #04-CR- 14047 in Florida., https://herit.ag/3rAyxYe
2004 Florida	Jobero Lubin pleaded guilty to knowingly voting in a U.S. election while not a U.S. citizen. He was sentenced to one year's probation.	Source: U.S. v. Lubin, Case #04-CR-60163 in Florida.
2004 Florida	Syble McKenzie pleaded guilty to election fraud after she voted despite being a non-citizen. She was sentenced to one year's probation and 30 hours' community service.	Source: U.S. v. McKenzie, Case #04-CR-60160 in Florida.
2004 Florida	Jerry St. Clair O'Neil pleaded guilty to knowingly voting in a U.S. election while not a U.S. citizen. He was sentenced to one year's probation and fined $250.	Source: U.S. v. O'Neil, Case #04-CR-60165 in Florida.
2004 Florida	Christiana Phillips was convicted of voting in a U.S. election while not a U.S. citizen. She was sentenced to three months' probation.	Source: U.S. v. Phillip, Case #04-CR- 80103 in Florida.
2004 Florida	Troy Shivdayal pleaded guilty to knowingly voting in a U.S. election while not a U.S. citizen. He was sentenced to one year's probation and fined $250.	Source: U.S. v. Shivdayal, Case #04-CR-60164 in Florida.
2004 Minnesota	Christine Chernosky, a Canadian citizen, came to the United States on a six-month visitor visa. During that time, she applied for a driver's license, registered to vote, and voted in the 2004 election, a felony under Minnesota law. Immigration Judge ruled that this Canadian citizen could be deported from the U.S. and was inadmissible because she had illegally registered and voted in the 2004 election, and it was upheld on appeal.	Source: https://herit.ag/3kZqBhJ
2003 Florida	Rafael Antonio Velasquez, a former candidate for the Florida House, was convicted in 2003 for having voted twice before he became a U.S. citizen.	Source: https://herit.ag/3zH4Yad, https://herit.ag/2VispaI

2003 North Carolina	Joshua Workman, a Canadian citizen who was one of the youngest delegates to the 2000 Republican National Convention, was charged by the Department of Justice with casting ineligible votes during the 2000 and 2002 primary and general elections in Avery County. He made false statements claiming U.S. citizenship in order to vote. As part of a plea agreement, Workman pleaded guilty to a federal misdemeanor charge of providing false information to election officials and subsequently returned to Canada.	Source: https://herit.ag/2UTbYSA, bit.ly/2fmg7FW
2003 Oregon	Terence John Finch pleaded guilty to unqualified voting. He voted in Oregon for several years while not a U.S. citizen. He was sentenced to probation, 80 hours' community service, and fined $1,000.	Source: https://herit.ag/3eZZf7i
2002 Connecticut	Michael Singh, of Stratford, CT, registered to vote, voted, and eventually was elected to the town council despite the fact that he is not a U.S. citizen. An immigrant from Jamaica, he registered to vote in 1999, ran unsuccessfully for state senate in 2000, and won a seat on the Stratford town council in 2001, where he became majority leader. The Connecticut Elections Enforcement Commission later found that he was not a U.S. citizen and required that he pay $4,000 in fines and resign from his position.	Source: https://herit.ag/372VR7l, https://herit.ag/3kpx1Gj

197. In almost every one of the cases identified in Table 11 a non-citizen was convicted of illegally registering and in most instance voting in the US electoral system. Clearly non-citizen involvement with the US election system is not zero. If it was, then the cases listed in the table would not have occurred. They did.

198. The Heritage Foundation website states that the cases identified in its database are intended to be illustrative rather than a comprehensive list of cases.

"The Heritage Foundation's Election Fraud Database presents a sampling of recent proven instances of election fraud from across the country. Each and every one of the cases in this database represents an instance in which a public official, usually a prosecutor, thought it serious enough to act upon it. And each and every one ended in a finding that the individual had engaged in wrongdoing in connection with an election hoping to affect its outcome — or that the results of an election were sufficiently in question and had to be overturned. This database is not an exhaustive or comprehensive list. This database is intended to demonstrate the vulnerabilities in the election system and the many ways in which fraud is committed."

Thus, the Heritage Foundation database does not claim to be complete. Minnite identifies several cases in her report that do not seem to be in this database.

199. Furthermore, as noted above, however, the instances identified in the Heritage Foundation database almost surely are an undercount of the total number of non-citizens who are

registered to vote because not every non-citizen who registers to vote will subsequently be detected, and many of those who are subsequently detected will not be prosecuted and convicted.

2.3. Quantifying the frequency of non-citizen registration

200. Beyond the baseline provided by court cases, there are a variety of other approaches that can be used to estimate the prevalence of non-citizen registration in US elections in general, and Arizona elections in particular. All have limitations, however, and the ultimate assessment of the frequency of non-citizen registration and voting requires careful consideration of these limitations and a weighing of the evidence. How prevalent is registration by ineligible non-citizens? Research on non-citizen registration provides a basis for making quantitative estimates. These estimates suggest registration by slightly less than one percent of non-citizens. I will focus on three sources of information derived from: database matches, naturalization ceremonies, and surveys.

2.3.1. Arizona evidence from file matches

201. Matching Arizona voter databases and ADOT records provides one potential means of evaluating the prevalence of non-citizen attempted registration and registration in the state of Arizona. Four categories are relevant for this estimation. First, individuals who were cancelled from the voter rolls because no valid DPOC was provided or identified or after a database check suggested a lack of citizenship or because of a jury questionnaire that indicated they were not a citizen. Second, individuals who were suspended from the voter rolls because of lack of DPOC. Third, individuals who were placed on the voter rolls as Federal-only voters because they did not provide DPOC, and finally individuals who are active registered voters but for whom ADOT data indicates they are not a citizen.

202. For each category, I present minimum and maximum estimates. The minimum estimates include only those individuals who had a drivers license or other identification document issued by ADOT *after* they registered to vote, yet had a notation in the ADOT file that they were not a citizen. For these individuals (as discussed above in section 1.3.5) the State may reasonably suppose them to be non-citizens. The maximum estimates include all individuals whom the ADOT database did not indicate were *citizens* at the time of registration.

Table 12. Evidence of possible non-citizen registration and gaps in knowledge from Arizona DOT file matches

Data	Records with ADOT indicating non-citizenship and ADOT document issue date after voter registration.	Records with ADOT file match indicating non-citizenship.	Records without ADOT file match documenting citizenship or non-citizenship status.
Active voter file (Excluding Federal only)	2,331	6,084	225,903
Cancelled – lack of DPOC	66	77	858
Suspended – "Invalid Citizenship Proof"	97	253	5,010
Federal-Only Registered Voters	41	65	19,262
Cancelled – Juror Survey non-citizens[36]	1	1	2
Total	2,536	6,480	251,035
Percentage of Arizona non-citizens	0.56%	1.44%	
Exact Binomial Confidence interval (LCB to UCB)	0.54% to 0.59%	1.41% to 1.48%	

203. The records with the strongest evidence of non-citizen attempted registration and voting involve those with AVID categories (cancelled, suspended, and Federal-only) associated with lack of provision of DPOC who have records with ADOT indicating that they are non-citizens today, and have updated their information with ADOT in the time-period since they registered to vote. The total across these groups is 66+97+41+1 = 205. In these 205 cases the individual was processed by the state in a way that indicated lack of DPOC, and they subsequently interacted with ADOT and received a new license or identification card while maintaining with ADOT the status of non-citizen. These 205 records are equal to approximately 0.046% of the adult non-citizen population of Arizona. An exact binomial confidence interval around these observations runs from a lower confidence boundary of 0.040% to an upper boundary of 0.052%.

204. Then there is the group of actively registered voters not on the Federal-only list who interacted

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[36] A total of four individuals are listed in the AVID cancelled file as having had their registration cancelled for the reason of "Juror Questionnaire – Citizenship." Of these, two have ADOT records indicating that they are citizens, one has an ADOT record indicating non-citizenship, and one did not have a matching drivers license number in the ADOT database.

with ADOT after they registered to vote and have a status with ADOT indicating that they are non-citizens. As I discussed in my critique of McDonald's report (in section 1.3.5.1. above), the geographic distribution of these individuals is statistically significantly associated with the geographic distribution of non-citizens in the state. There remain two possibilities for these individuals. First, that an error in the ADOT database or a matching error could perhaps account for the anomaly that they are actively registered to vote while seemingly having a more recently updated ADOT record indicating they remain a non-citizen. Second, that an error was made on the part of the county recorders and these individuals were added to the voter rolls when they should not have been. If we add these individuals to those from the other groups mentioned above, then we have 2,536 records of individuals who currently have an ADOT status indicating that they are non-citizens, and have interacted with ADOT to receive a new or updated license after they registered to vote. These 2,536 records are equal to approximately 0.56% of the Arizona adult non-citizen population. A confidence interval around this estimate (exact binomial) ranges from 0.54% to 0.59%. It is important to note that while it appears likely these individuals were at one point registered non-citizens it is possible that they have naturalized in the interval of time since they last had a new document issued by ADOT.

205. In addition, there are a number of other voter records that could be matched with ADOT files using the drivers license number field and had ADOT information indicating non-citizenship. The total of all records for which ADOT data indicates non-citizenship is 6,480 records. This constitutes approximately 1.4% of the Arizona non-citizen population. For this larger group, there is a more substantial risk that some of these indications of non-citizenship are out of date in the ADOT files. An exact binomial confidence interval around an estimate based upon these numbers is 1.41% to 1.48%.

206. Beyond these, there are a substantial number of records which cannot be matched using the drivers license number field with an ADOT record that provides DPOC, and a substantial number of active voter registrations that cannot be matched with the ADOT database using the drivers license number field, or for whom the drivers license was last updated prior to October 1, 1996. I have discussed some of these numbers already in my analysis of McDonald's report.

207. One set of calculations not discussed previously involves the active voter file. In the active voter file, there are 192,029 records with a driver license number listed in the active voter file that does not match directly with a number in the file from ADOT. There are in addition, 31,532 with no driver license number in the AVID file. Finally, there are 2,342 with a driver license issue date in the ADOT file prior to October 1, 1996. For these individuals ADOT likely did not collect DPOC.

208. In all instances, the numbers in the right-most column are individuals for whom actual citizenship status cannot be documented through a hard-match of the driver license number with ADOT. What does this imply in terms of citizenship status? For those individuals on the active voter list for whom ADOT data does not provide documentation of citizenship status especially, the probability that they are non-citizens is likely low: many of these may reflect individuals for whom DPOC of some other type was obtained in the process of establishing voter registration, for example. For those on lists like the cancelled with status reason "Invalid

Citizenship Proof" list, it is probably substantially more likely that these individuals are non-citizens, although again the ADOT match provides no clear indication either way.

209. The broader point for the numbers in the right-hand column is that these are records for which the ADOT data does not provide a clear indication of citizenship. This lack of information leaves open possibilities that these individuals are non-citizens, and highlights the merits of bringing additional databases to the problem of identifying the citizenship status of these individuals.

210. The files which I was provided with did not allow me to assess whether any of the individuals who had been placed on particular lists had a history of voting or not. However, for Maricopa County there is some evidence concerning the incidence of voting. In response to a public records request from the Public Interest Legal Foundation (PILF), Maricopa provided data detailing cancellations for reason of non-citizenship for several years beginning in 2015 and extending into 2022. According to the report produced by PILF concerning these cancelled voters from Maricopa, "9 individuals are recorded casting 12 ballots across 4 federal elections."[37]

2.3.2. Evidence from file matches in other states

211. There are a variety of other states for which evidence of non-citizen registration based upon file matches can be calculated. I focus here on two of the most interesting examples in terms of the likely quality of the data and ability to estimate a rate of non-citizen registration or attempted registration, and then briefly discuss others. Overall, these matches lead to estimates of non-citizen registration quite similar to those obtained for Arizona above, suggesting registration rates slightly below one percent: a bit less than one in 100 non-citizens appears to have attempted to register.

2.3.2.1. Naturalization ceremonies in Sedgwick County Kansas

212. Segwick County Kansas tabulated prior voter-registrations by newly naturalized citizens who registered to vote at naturalization ceremonies in the county from 2013 through 2016. A spreadsheet of those cases was disclosed in the case Fish v. Kobach. All were discovered at naturalization ceremonies attended by Sedgwick County election office staff. The newly naturalized citizens filled out applications to register to vote, but the election office determined that those individuals had already registered to vote or attempted to register to vote prior to becoming citizens. The decision in that case argues that some of these individuals may not have *intended* to register to vote, or may not have realized at the time that they registered or attempted to register that this was illegal. These issues are irrelevant, however, to calculating the actual rate of illegal non-citizen registration and attempted registration.

213. My focus here is on estimating the incidence of non-citizen registration. In order to put these numbers in context one must have a sense of the total number of new citizens registering to

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[37] Public Interest Legal Foundation. 2023. Maricopa AZ Non-Citizen Report. Downloaded from, https://publicinterestlegal.org/wp-content/uploads/2023/04/Maricopa-AZ-Noncitizen-Report-2023-FINAL.pdf, October 13, 2023.

vote. According to information forwarded to me by the Kansas Secretary of State office from Tabitha Lehman, Sedgwick County Election Officer,

> "Since January 1, 2016, staff from the Sedgwick County election office have attended 62 naturalization ceremonies. We do not know how many individuals applied to become US Citizens at these ceremonies but we do know that 791 new citizens completed voter registration applications and submitted their new naturalization documents. When the registrations and POC documents were brought back to our office, 8 had already applied for voter registration in Sedgwick County and were already in ELVIS."

214. According to the Sedgwick County data roughly 1 percent of newly naturalized citizens since January 1 2016 (8/791) turned out to have previously registered to vote while non-citizens. The exact or binomial method of calculating confidence intervals gives a confidence interval for this estimate between 0.4% and 2%.

215. An alternative estimate which assumes the absolute worst-case scenario for my prior estimate – that none of the newly naturalized citizens who did not attempt to register to vote at the naturalization ceremony had prior voter registration. This puts a low bound on the potential bias that Dr. Minnite speculates about. As I noted above, I think the earlier estimate was probably a conservative one already because non-citizens who were already registered and had no need to update their registration would have little reason to re-register.

216. To develop this even more conservative estimate I examine data on total naturalizations. Naturalizations Supplemental table 3d of the 2015 yearbook (available at https://www.dhs.gov/immigration-statistics/yearbook/2015) lists 669 naturalizations in the Wichita KS the CSA of which Sedgwick county is a part. This can then be combined with the list of non-citizens identified at naturalization ceremonies in that year to compute an alternative measure of the rate of non-citizen registration as identified at naturalization ceremonies. This is the ratio of non-citizen prior voter registration ceremonies to the total number of naturalizations. The yearbooks for 2014 and 2013 indicate that there were 631 in 2014. And 628 in 2013.

217. The Wichita core based statistical area includes Sedgwick, Harvey, Butler, Kingman and Sumner counties according to: http://www2.census.gov/geo/maps/metroarea/stcbsa_pg/Feb2013/cbsa2013_KS.pdf. To estimate the percentage of naturalizing citizens in Sedgwick County who had previously registered or attempted to register to vote, I compute the ratio of naturalizations by previously registered individuals to overall naturalizations in the Wichita CSA. This is likely an even more conservative estimate because Sedgwick County is only one of the counties in the Wichita CSA. Estimates are displayed in Table X below. The estimated rate of prior voter registration among newly naturalized citizens ranges from 0.32% for the years 2013 and 2014 to 1.49% for the year 2015.

218. The 2013 data is likely inaccurate as attendance at all naturalization ceremonies did not begin until the summer of that year. Still, summing across the three years, the estimated rate of prior registration is 0.73%, with a confidence interval ranging from 0.4% at the low end to 1.2% at the high end.

219. For a more valid estimate, summing across the two years (2014 and 2015) with complete data yields an estimate that 0.92 percent of newly naturalized citizens in the Wichita CSA also had prior registration status that was revealed when they completed a registration form at the naturalization ceremony. This estimate is very close to the estimate I computed previously based upon 2016 data – the previous estimate was 1.01 percent. This suggests that any bias resulting from my use of a denominator of the total number of newly naturalized citizens who registered to vote was very modest.

220. Overall, the results reported in Table 13 reflect a prior registration or attempted registration rate among non-citizens of slightly below one percent in Sedgwick County.

Table 13. Naturalization and Prior Voter Registration Rates, Sedgwick County and Wichita CSA.

	2016	2015	2014	2013[38]	2013 to 2015	2014 to 2015
Naturalizations in Wichita CSA (Sedgwick, Harvey, Kingman, Sumner and Butler Counties for 2013 through 2015 data). Or naturalized citizens who registered (2016 data)	791	669	631	628	1928	1300
Number naturalized in Sedgwick who were previously registered or attempted to register.	8	10	2	2	14	12
Ratio of naturalized in CSA to Sedgwick previously registered	1.01%	1.49%	0.32%	0.32%	0.73%	0.92%
Wilson (Score) Confidence Interval Lower confidence bound	0.5%	0.81%	0.09%	0.09%	0.43%	0.53%
Upper confidence bound	1.98%	2.73%	1.15%	1.15%	1.22%	1.61%

2.3.2.2. North Carolina DACA data

221. In 2014, news stories and a state board of elections press release from North Carolina provided a rare opportunity to estimate the voter registration rate for a rather different defined group of non-citizens — undocumented immigrants who had filed paperwork under the Deferred Action for Childhood Arrivals program in North Carolina. According to the numbers in the story, there were 145 registered voters among the approximately 15,000 Deferred Action for Childhood Arrivals (DACA) individuals with a driver's license in North

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[38] According to communication from Sedgwick county which was verbally relayed to me by the KS SOS office Sedgwick County officials began attending all naturalization ceremonies in mid-2013.

Carolina. A later press release from the state board of elections lowered this number to 109.[39]

222. This implies that approximately three quarters of one percent (109 / 15000 = 0.73 %.) of DACA non-citizens were registered to vote. The binomial exact confidence interval ranges from 0.597% to 0.876% and the Wilson (score) confidence interval ranges from 0.603% to 0.876%. There is no way to know how DACA registration rates compare to other non-citizens, nor does the story discuss how many have cast votes. But this does potentially provide a very useful data point with which to cross-check other estimates of the frequency with which non-citizens register and vote because of the advantages provided by the clearly defined subset of immigrants who are part of the DACA program.

223. Given the noise in all datasets, and the inevitable vagaries of matching processes it is possible that some of these apparent DACA voter registrants either are not in DACA, or are not actually registered to vote, or that more are registered to vote than could be successfully matched. None the less, this is a useful data-point on a different group of non-citizens.

2.3.2.3. Other indications of non-citizen registration and cancellation

224. There are a variety of other recent instances in which information about potentially registered non-citizens has been uncovered. I mention some sources for further information in the next two paragraphs, but have not discussed them fully in my report because the information available is less suitable to identifying an estimate of the proportion of non-citizens registered.

225. The Public Interest Legal Foundation has drafted a variety of reports that are available on their website https://publicinterestlegal.org/reports/ but the exact methodology used is at times unclear, and I have chosen not to elaborate on any of the totals presented because of concerns that in the absence of fully understanding the methodology, my analysis of the results could potentially be misleading.

226. Another striking recent example is from Pennsylvania, but the issues there seem to have been due in part to errors in the way registration at Pennsylvania Department of Transportation (PennDOT) offices was implemented, and thus may not be nationally representative. In 2017 PennDOT discovered that its voter registration process had a flaw which led to offers of voter registration being made to individuals who had demonstrated they were non-citizens to the state motor vehicle agency. Initially 11,198 "potentially ineligible voters" were discovered. And in addition, 544 ballots cast illegally were identified when "the ineligible registrants reported themselves as having mistakenly registered" to vote. The state engaged in an intensive process of attempting to establish whether individuals on the list were currently ineligible to vote or not but struggled to obtain a response from many individuals on the list, ultimately the state sent a list of approximately 8,700 names to county registrars for further

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[39] https://www.ncsbe.gov/press-releases?udt_2226_param_detail=15 downloaded April 17, 2017, and (http://www.journalnow.com/news/elections/state/dmv-search-of-records-turns-up-ineligible-n-c-voters/article_f4ecc2ae-5981-11e4-9f35-0017a43b2370.html downloaded October 9, 2023

investigation in the summer of 2018.[40] Prior to the discovery of flawed state systems in 2017, the non-citizen registration rate in Pennsylvania was likely substantially higher than all of the estimates I have examined so far. The 11,198 records initially identified would have been more than three percent of the state's adult non-citizen population.

2.3.3. Survey Based Measures of Non-Citizen Registration

227. This section uses the most current data and important advances in the design of the CES survey instrument to estimate the rate of non-citizen registration nationally using the Cooperative Election Study survey.

228. It is important to note that this is not the first time I have used CES data to evaluate non-citizen registration. As Minnite notes in her report, my 2014 *Electoral Studies* paper with Earnest and Chattha that used this data was criticized by Minnite herself and some others on two grounds. First, critics claimed that the way the question about citizenship status was asked in the Cooperative Election Study would lead to response errors, and second critics claimed that response errors would lead to biased estimates. In particular, the argument from these critics was that a small percentage of citizens might be erroneously indicating on the Cooperative Election Study (CES) survey (formerly known as the Cooperative Congressional Election Study or CCES) that they were non-citizens, and the claim was that the registration and voting activity of these citizens accounted for the entirety of the estimates of non-citizen registration and voting in our paper.

229. Fortunately, more recent data that has become available since publication allows for a reassessment of these issues using more accurate measures. The upshot is that the critics claims that the citizenship self identification question is rife with error and that non-citizen registration was actually zero in the survey both appear to have been overstated. More accurate assessments are now possible, leading to estimates of the registration rates among non-citizens that again (like the database-based assessments discussed above) are slightly under one percent.

230. About the CES: Each year the CES asks respondents their citizenship status with at least one question (and more recently with two questions) and asks respondents whether they were registered to vote or not. In addition, the CES long retained the voter file firm Catalist to match survey respondents with voter-file and commercial records in an effort to verify respondents' statements of whether they were registered to vote. In 2022 the CES switched its voter file matching from Catalist to instead use the TargetSmart database.[41]

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[40] Quotes are from Julian Routh, Pittsburgh Post-Gazette. (July 28, 2018 Saturday). PA. WORKING TO IDENTIFY INELIGIBLE VOTERS; REGISTRATION SKEWED BY MOTOR-VOTER SYSTEM. *Pittsburgh Post-Gazette.* Downloaded from https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:5SX0-0NR1-JC8R-30P1-00000-00&context=1516831 and http://www.post-gazette.com/news/politics-local/2018/07/27/Pennsylvania-voter-registration-illegal-election-non-citizens-vote/stories/201807270155 October 11, 2023.

[41] Schaffner, Brian; Ansolabehere, Stephen; Shih, Marissa, 2023, "Cooperative Election

231. Measuring citizenship in the CES survey: From its inception the CES survey has measured citizenship and immigration status using the following question:

"With of these statements best describes you?

- o I am an immigrant to the USA and a naturalized citizen.

- o I am an immigrant to the USA but not a citizen.

- o I was born in the USA but at least one of my parents is an immigrant.

- o My parents and I were born in the USA but at least one of my grandparents was an immigrant.

- o My parents, grandparents and I were all born in the USA."

Critics of my 2014 paper worried that this question was complex, and that respondents might get confused by it.

232. In the 2019 CES a more robust approach to measuring citizenship status was adopted. This involved asking two questions about citizenship status. Prior to asking the question above, a simpler question was also asked. This additional question was:

"Are you a United States citizen?

- o Yes

- o No"

233. The addition of this question offered two advantages over the previous approach. First, the new question was simpler, so the concern voiced by Minnite about the complexity of the old question did not apply to it. Second, it provided an opportunity to assess within the survey the robustness of responses to the longstanding question. If the more complex question was confusing or unreliable – if some citizens were mistakenly identifying themselves as non-citizens – then this should come out in the pattern of answers. There should be inconsistencies between the answers to the two questions if the critics were right.

234. Strikingly, at least based upon the published survey datasets, there don't seem to have been any errors identified. Table 14 reports a crosstabulation for the 2019 through 2022 CES survey of answers to these two questions. As can be seen, every individual in the survey dataset had a consistent pattern of answers across the two questions. There were no instances in which someone indicated that they held a United States citizenship on one question and that they did not hold United States citizenship on the other question. This pattern of responses is striking given that the critique of my study asserted that there was a 0.5 percent error rate on the citizen status question. If there was an error rate of this magnitude, then across more than 164

thousand responses, there ought to be some error visible. Instead, there appears to be no error whatsoever. This is vastly less error than the claims made by critics of my study including Minnite would imply. These results appear to indicate no errors at all: an error rate of 0.

Table 14 Crosstabulation of two CES citizenship status questions, 2019 - 2022

	US citizen: Yes	US citizen: No
Immigrant, naturalized	9,429	0
Immigrant, noncitizen	0	2,554
Born in USA, immigrant parent(s)	16,416	0
Born in USA, immigrant grandparent(s)	32,152	0
Parents and grandparents all born in USA	103,678	0
Total	161,675	2,554

235. Given this strikingly consistent data, perhaps the best possibility for the critic's claims about survey question error is that perhaps without revealing this in the survey releases, the research team might have eliminated respondents with inconsistent response patterns on these two questions from the final survey dataset. However, even if that is the explanation for the high level of consistency between the questions, these results still indicate that we can be quite confident about the citizenship status self-identification of survey takers. If the probability of making a mistake on one citizenship status question was 0.005 as some critics have claimed, then the probability of making the same error twice is $0.005^2 = 0.000025$. In other words, the number of citizens responding that they were non-citizens should be 1/200 of the number if only one question was asked, even if we assume that the new much simpler question has the same response error probability, and even if we stipulate as fact the arguably inflated one-question error estimates offered by some critics.[42]

236. In addition to the great improvement offered by the reworked survey design for assessment of non-citizen status in the most recent rounds of the CES, another way to improve the reliability of the assessment of citizenship status is to use the CES panel studies that were conducted between 2010 and 2014. In the panel study the same individuals were recontacted each election season, and the question concerning immigration history was re-asked each time. Individuals who consistently said that they were non-citizens when asked multiple times are the ones we can be most confident were in fact non-citizens.

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[42] This claim is overstated, as my coauthors and I have pointed out: the actual error rate appears to be substantially lower for citizens. Further analysis indicates that most of the variability in responses to the citizenship questions across years is from individuals who are non-citizens but sometimes claim to be citizens. See https://fs.wp.odu.edu/jrichman/wp-content/uploads/sites/760/2015/11/AnsolabehererResponse_2-8-17.pdf.

237. The key point is that the reliability challenges raised by critics can be addressed using the two questions asked in the recent runs of the CES study, and the multiple years of questions in the CES panel study. Because of these advances, we can be much more confident in the identification of citizenship status than was possible previously with just one question. When I conducted my previous published work on this issue, these datasets were not available.

238. Measures of voter registration status could also contain errors. An individual might decide to claim that they were registered (or not registered) when that was not the case, or they might simply select the wrong choice on the survey by mistake. To address this, the CES has long used matches with voter registration data from across the states to establish through matching whether individuals are registered to vote, as noted above. It is also possible that some respondents were matched with voter files incorrectly. The 2022 CES survey guide states that:

> "Matches are made only with records for which there is a high level of confidence that the respondent is being assigned to the correct record. However, even by setting a high threshold of confidence, there will still be some false-positives which should be considered when using the validation records."[43]

239. When assessing voter registration status in the survey estimates below, I aim to minimize the possibility of erroneously identifying an individual as registered when they were not. Consequently, I report data only for individuals who both said in the survey that they were registered to vote and had a voter file match indicating voter registration. This allows for a more robust assessment of voter registration status: we can be most confident that an individual is actually registered to vote if they (1) say they were registered to vote, and (2) have a voter file match which indicates that they are registered to vote. Thus, I focus here on the most robust, least error-prone, available means of assessing registration – individuals who both said they were registered to vote *and* also had a voter file match indicating that they were registered to vote.

Table 15. Estimated Registration by Non-Citizens using CES Data

	2022 Non-citizenship asked twice	2012 Panel test-retest non-citizenship confirmed twice	2014 Panel (test-retest-retest citizenship asked three times)
Self-reported and validated registration as a percentage of all respondents (sample size)	0.96% (624)	2.35% (85)	4.3% (23)
Exact Binomial confidence interval Lower Confidence Boundary to Upper Confidence Boundary	0.35% to 2.08%	0.29% to 8.24%	0.11% To 21.95%

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[43] Schaffner, Brian; Ansolabehere, Stephen; Shih, Marissa, 2023, "Cooperative Election Study Common Content, 2022", https://doi.org/10.7910/DVN/PR4L8P, Harvard Dataverse, V2, see page 19 of the "Guide to the 2022 Cooperative Election Study."

Sources: Schaffner, Brian; Ansolabehere, Stephen; Shih, Marissa, 2023, "Cooperative Election Study Common Content, 2022", https://doi.org/10.7910/DVN/PR4L8P, Harvard Dataverse, Schaffner, Brian; Ansolabehere, Stephen, 2015, "2010-2014 Cooperative Congressional Election Study Panel Survey", https://doi.org/10.7910/DVN/TOE8I1, Harvard Dataverse, and Ansolabehere, Stephen; Schaffner, Brian, 2014, "2010 - 2012 CCES Panel Study", https://doi.org/10.7910/DVN/24416, Harvard Dataverse

240. Table 15 reports the most reliable recent estimates that can be obtained from the CES survey concerning non-citizen registration. These estimates are for individuals who at least twice stated that they were not US citizens (ameliorating the concern about response error on the citizenship question) and both said they were registered to vote and had a voter file match (ameliorating possible concerns about the reliability the registration estimates). The percentage of respondents who appear to have been registered to vote across the three estimates seems consistent with the evidence from file matches. In all cases, a registration rate for non-citizens on the order of something a bit less than one percent seems like a plausible rate, as for the other analyses.

241. Before moving on, I want to emphasize yet again that these estimates are quite distinct methodologically from those in the *Electoral Studies* paper published back in 2014 as at the time that paper was written the opportunity to use multiple questions to confirm non-citizen status was not available in the CES. This is an important advance, as it dramatically reduces the risk that response error on the citizenship status question is leading to bias.

2.3.4. Summing up: Estimates of non-citizen registration

Noncitizens register and vote in United States elections. A number of instances have occurred in various states in which convictions have been obtained for illegal registration and voting. Furthermore, there are good reasons to suppose that these convictions are a small subset of actual level.

To estimate the actual levels, I have examined several sources of information including database matches in Arizona, and some examples from other states that involved matching of other kinds of records that provide information relevant to assist in understanding what the Arizona rate might be for various populations, at least if it no longer had the rigorous but low-registrant-burden system it has currently. In addition, I examined the most current and reliable survey-based information about non-citizen registration from a nationwide survey. These sources all align quite well in terms of suggesting that the likely rate of non-citizen registration or attempted registration nationwide is slightly less than one percent, with perhaps a lower rate of registration in Arizona due to its longstanding DPOC rules.

A non-citizen registration rate of one percent, if it led to non-citizen participation on the order of half a percent would be sufficient according to the estimates and simulations in the sections above to determine the outcome of statewide elections decided by less than about 1340 votes in Arizona. This is several times the post-recount margin in an Arizona state-wide election that occurred in 2022.

2.4. Election Security Legislation and Voter Confidence

242. Voter confidence and trust in election processes is important because it facilitates the consent of losers after elections. Recent research published in the journal *Nature Human Behavior* has shown that a plausible model of the development of election fraud beliefs is the rational updating of beliefs across a system of beliefs about possible fraud and probable election outcomes in response to potentially surprising election outcomes.[44] In the 2020 Presidential election many Republican voters in Arizona were surprised by the presidential election outcome, and this increased concerns about the possibility that some type of fraud occurred. Conversely, Democrats were also surprised, but this led to an updating of beliefs towards more confidence in the election outcome. The result both in Arizona and nationwide was an increase in polarization of election beliefs, one driven both by increased confidence among Democrats and diminished confidence among Republicans.

243. According to an analysis of data from Survey of the Performance of American Elections by Charles Stewart III with the MIT Election Data Science Lab this was a major shift from just four years prior. After the 2016 presidential election, Republicans were more confident than Democrats that "votes nationwide were counted as voters intended" according to the survey, but after the 2020 result Republican confidence on this item dropped even as Democratic confidence climbed to 94 percent. Arizona developed the 7th largest gap in confidence between Democrats and Republicans of any state in the country. [45]

244. In response to this drop in election confidence among their constituents, Arizona Republicans enacted a set of reforms that are being litigated in this case. These reforms should, as they are implemented, begin to diminish fraud beliefs. By revising voter's priors about how resistant Arizona elections are to fraud, this legislation should help improve voter confidence and trust in Arizona elections.

245. The record of statements Minnite references from the legislative record, the Trump campaign and its surrogates, and others suggest important ways in which HB 2243 and HB 2498 could increase voter confidence by directly addressing a number of the beliefs about fraud which were stimulated by what was for many Republican voters in the state a surprising outcome. As the paper by Botvinik-Nezer et. al. referenced above argued, "changing fraud beliefs may require targeting multiple key beliefs simultaneously rather than direct debunking attempts" (p. 1106) and legislation which aims to directly address

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[44] Botvinik-Nezer, R., Jones, M. & Wager, T.D. A belief systems analysis of fraud beliefs following the 2020 US election. Nat Hum Behav 7, 1106–1119 (2023). https://doi.org/10.1038/s41562-023-01570-4

[45] Charles Stewart III. 2021. How We Voted in 2020: A Topical Look at the Survey of the Performance of American Elections. Downloaded from https://electionlab.mit.edu/sites/default/files/2021-03/HowWeVotedIn2020-March2021.pdf, October 13, 2023.

some of the frequently voiced (as Minnite demonstrated) concerns about the security of Arizona elections is likely to be a useful component of such a strategy.

2.4.1. Methodological challenges of assessing the impact of election security legislation on voter confidence

246. Minnite argues that there is a "lack of research establishing any link at all between restrictive registration and voting laws … and increased voter confidence" (p. 71). Two key points are relevant here. First, it is important to understand that the lack of research cuts both ways: there is also a lack of research establishing that restrictive registration and voting laws are associated with a decrease in public confidence. The study Minnite references at the end of the phrase just quoted[46] does not find evidence that residents of states with Strict Photo ID provisions are less confident in elections in their state, and some of the possible interactions with loser's consent are not fully explored. Second, the small amount of research which has been done in this area has failed to control for potentially critical endogeneity issues. Appropriately designed research has yet to be conducted.

247. So far as I am aware, no study of the relationship between identification requirements or other regulations and voter confidence to this point has dealt with the endogeneity between the legal framework and public confidence that is virtually ensured by democratic political processes. Let us consider the following simple causal diagram.

Figure 2: Theorized Causal Diagram of Voter Confidence and Election Regulations
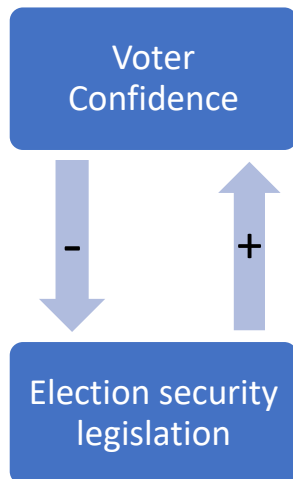
248. In Figure 2 I theorize two plausible causal relationships: that confidence leads to less election security legislation, and election security legislation leads to more confidence. In one causal relationship, high voter confidence in elections should lead to less legislative action to enact "restrictive registration and voting laws" as voters will have high confidence

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[46] Charles Stewart III, Stephen Ansolabehere and Nathaniel Persily, "Revisiting Public Opinion on Voter Identification and Voter Fraud in an Era of Increasing Partisan Polarization" *Stanford Law Review* 68: 1455-89.

in the security of their existing electoral institutions and will see little reason to demand that their legislators make changes. This is the arrow with the negative sign in the causal diagram, indicating that high confidence leads to less legislation. In the second causal relationship, election security legislation increases public confidence in elections. The public recognizes that their electoral processes have safeguards that make fraud less likely, and this increases confidence. This is the arrow with the positive sign in the causal diagram, indicating that election security legislation increases public confidence.

249. Because the causal arrows go in both directions in this figure and have opposite signs, it is quite likely that, if both arrows are true, one would find ambiguous and not statistically significant results in analyses like the one referenced by Minnite which have not taken into account these bi-directional causal patterns. Appropriately designed research able to tackle this bi-directional causality has not yet been conducted or published in this research area.

250. Let me delve a bit further into what I mean in terms of the empirical challenges of estimating causal effects in the presence of endogeneity. In their book "Mostly Harmless Econometrics" Joshua Angrist and Jorn-Steffen Pischke begin their discussion of the problem of causal inference with an intuitive example of a selection problem that produces bi-directional causality. [47] I briefly adapt it here in summary form. All quotes are from Chapter 2 of their book, mostly from pages 12-13. Their focus is on a bi-directional relationship between health and hospitalization. We might theorize this bi-directional relationship as follows: people go to the hospital when their health is suffering, and hospitals help people who are sick recover. But because health influences hospitalization and at the same time hospitalization influences health, separating the causal effects requires skill and an ability to move beyond naïve non-causal analyses like the one conducted by Stewart III, Ansolabehere and Persily.

251. Suppose one is interested in understanding the answer to the research question "Do hospitals make people healthier?" A naïve way to test this hypothesis would be use the National Health Interview Survey (NHIS) questions: "During the past 12 months, was the respondent a patient in a hospital overnight?" and "Would you say your health in general is excellent, very good, good, fair, poor?" Angrist and Pischke then proceed to show that a difference of means test based upon this naïve approach could lead one to conclude that going to a hospital makes people less healthy. They then begin to develop the intuitions behind why this is likely not a correct inference. Specifically, "people who go to the hospital are probably less healthy to begin with. Moreover, even after hospitalization people who have sought medical care are not as healthy, on average, as those who were never hospitalized in the first place, though they may well be better off than they otherwise would have been."

252. The key to getting accurate statistical estimates of whether hospitalization is good for health in the face of bi-directional causality is to utilize one or more of the potential causal estimation strategies that can allow us to assess the strength of one causal arrow while holding the other constant. For instance, if we found a way to identify a randomization that

[47]Angrist, Joshua D., and Jorn-Steffen Pischke. 2009. *Mostly Harmless Econometrics*: *An Empiricist's Companion*. Princeton University Press

led some people to go to the hospital and others not to in a way not associated with their health status, then we could use this to evaluate how hospitalization influenced their health.

253. Statistical and econometric theory has identified a wide range of strategies for estimating causal effects in the face of endogenous or bi-directional causality of the sort that is likely to be in place in the context of the relationship between election security legislation and election confidence.[48] Hopefully in the future research will be published that takes this bi-directional relationship seriously and separates out the causal effects.

254. At the present, most of the research reviewed by Minnite in Section C of her report speaks to the likely validity of one of the causal arrows sketched in Figure 1. When people perceive more fraud, they are more likely to support legislation to address it. The fact that this causal arrow appears to have support suggests strongly (in light of the results from Stewart III, Ansolabehere and Persily) that the other causal arrow likely also has support (given the non-significant effects in prior studies that have not addressed the causal structure). Ultimately, this is an empirical question that has yet to be answered adequately.

3. Conclusion

255. In this conclusion I offer a few final thoughts about the evidence in this case that I have seen.

256. State legislatures are tasked with balancing competing concerns in the legislative process. In the context of election regulation, my hope as a citizen is always that legislatures will create processes that provide high levels of both election security and election accessibility. I do not believe that these are mutually incompatible goals, and I believe that both are vital for the effective functioning of democracy. The specifics of how this can be accomplished will depend upon the judgment and wisdom of the legislators.

257. There is evidence, both from Arizona and from a variety of other states across the country, that non-citizens do attempt to register and vote in US elections. A variety of distinct analyses using different methodologies and data sources suggest that non-citizen registration rates are typically a bit less than one percent of the adult non-citizen population, which as I showed above has the potential to alter the outcome in close elections. In states like Arizona which have substantial non-citizen populations and also frequent close elections, there is what appears to me to be a legitimate concern for the state to address.

258. In my view, Arizona has overall done an effective job of designing an appropriate and effective system in the area of non-citizen registration regulation. Through extensive database matching efforts, which have been expanded in HB 2492 and HB 2243, the state

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[48] In addition to the Angrist and Pischke book cited earlier, see also: Nick Huntington-Klein. 2022. *The Effect: An Introduction to Research Design and Causality.* Chapman & Hall a version of which is also available to the public at https://theeffectbook.net/index.html; and Cunningham, Scott. 2021. *Causal Inference: The Mixtape.* Yale University Press for recent treatments of the range of inference strategies the causal inference revolution in econometrics has developed.

has created and is on the cusp on implementing rigorous processes for obtaining DPOC while minimizing burdens on citizens.

Signed by

Jesse Richman

October 13, 2023

Appendix A: Curriculum Vitae

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EXPERIENCE

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Acting Director Graduate Program in International Studies, Fall 2015.

Faculty Director of Old Dominion University Social Science Research Center, 2012 –
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Assistant Professor of Political Science, Old Dominion University, 2006-2012.

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Research Methods (graduate). Old Dominion University

Advanced Statistics Techniques (graduate in person and online). Old Dominion University.

Quantitative Methods. Old Dominion University

Research Design. Old Dominion University.

American Political Thought. Old Dominion University.

American Foreign Policy. National University of Public Service, Budapest Hungary.

Diplomatic History. National University of Public Service, Budapest Hungary.

Game Theory Short Course National University of Public Service, Budapest Hungary.

Graduate Statistics Short Course National University of Public Service, Budapest Hungary.

Introduction to American Politics Vanderbilt University

Public Opinion. Vanderbilt University.

Research Methods. Vanderbilt University

STUDENT MENTORING

Names of students who have **already defended** are **in boldface** and committees that I chaired are marked by a *.

Current and Completed PhD Dissertation Committees Chaired

    *Newzaria Khan, In progress, *Political Participation Among Muslim Americans*

    *Faith Masibili. In progress. *Disaster Early Warning Systems.*

    *Imran Khan. In progress. *Bilateral versus Multilateral Cooperation.*

    *Pamela Antwi-Nimarko. In progress. *Immigration Attitudes and Climate.*

    *Eduardo Landaeta Feo. 2023. *Post-Disaster Housing Recovery.*

    *Ryan Roberts. 2021. *Re-Spatializing Gangs in the United States: An Analysis of Macro- and Micro-Level Network Structures.*

    *J.R. Reiling. 2021. *Smart Power in the Iraq Surge 2007-2008.*

*Khadijeh Salimi. 2021. *Norm Contestation and Its Effects on Emergence of a New Norm.*

*Rebecca Law. 2021. *State Antifragility: An Agent-Based Modeling Approach to Understanding State Behavior.*

*Tatevik Movsisyan. 2021. *The Second-Order Impact of Relative Power on Outcomes of Crisis Bargaining: A Theory of Expected Disutility and Resolve.*

*Joshua Hastey. 2020. *Faits Accomplis in the Shadow of Shifting Power.*

*Ryan Nixon. 2019. *The Messy Nuclear Landscape: Using Fuzzy Cognitive Mapping to Explore Plausible Nuclear Disarmament Scenarios.*

*Nurullah Ayyilmaz. 2018. *Measuring Vulnerability Interdependence: To What Extent Do Chinese Investments in Africa Make China Vulnerable?*

*Jamila Glover. 2017. *A Dirty Dilemma: Determinants of Electronic Waste Importation.*

*Joanne Fish. 2017. *A Cross-Disciplinary Approach to the Maritime Security Risk of Piracy and Lessons Learned From Agent-Based Modeling.*

Selected Dissertation Committee membership (non chair).

Ayankojo, Bolu. In progress. *Energy Transition in Africa*

Kevin Felix. In progress. *All-Domain Urban Training Optimization*

Allen Hammerquist. In progress. *Impact of Domestic Power Equality on Innovation and State Hard Power.*

Chris Korkor. In progress. *Impacts of US Intervention in Africa.*

Nikita Lumijoe. 2023. *Attitudes of Ethnic Minorities Towards National Defense and Security in the Triadic Nexus: The Case of Estonia.*

Girish Sreevatsan Nandakumar. 2022. *The Political Economy of Global Private Currencies*

Christina Bagaglio Slentz. 2021. *Environmentally Induced Urbanization and Violence Potential.*

Julia Nikolaeva Thompson. 2019. *Conceptualization of Faculty Work Motivation: Overcoming the Impasse*

Sean Peter Murphy. 2017. *Acquiring the Tools of Grand Strategy: The US Navy's LCS as a Case Study*

Felicia Grey. 2017. *Empty Chair at the Table: Bargaining, Costs and Litigation at the World Trade Organization*

Jan Adam Nalaskowski. 2015. Dwelling in time, dwelling in structures: disintegration in world politics

Current and Completed MA Thesis Committees Chaired

*Hawa S. Saidou Barane Ba. In progress. *Modeling Protest Activity in Africa*.

*Hameedullah Hassani. 2023. *US-China Trade War.*

*Nurullah Ayyilmaz. 2016. *The Effects of Using Natural Gas in Light-Duty Vehicle Fleet of the United States on Its Energy Dependency and Greenhouse Gas Emissions.*

*Kim Ganzack. 2015. *Shaping American foreign policy a game theoretic analysis of the United States'--North Korean relationship*

Selected Masters Committee membership (non-chair).

Andy Gomez. 2022. *The Carrot vs the Stick: A Comparative Analysis of Secondary Sanctions vs Positive Inducements in Gaining European Support for a US Led Sanction Regime.*

Other Student Mentoring

Advised numerous undergraduate student projects for ODU Undergraduate Research Symposium and other conferences. A partial list of students and projects is below:

London Henderson. *School to Prison Pipeline*. Undergraduate Research Symposium 2023.

Alexa Boggan. *How does suspension affect black people's freedom?* Undergraduate Research Symposium 2023.

Potter, Robert. *A Model of Spaces Where a Spoiler Third Party Candidate Can Win a Negative Advertising War*. Undergraduate Research Symposium 2014, Midwest Political Science Association conference 2015.

Chattha, Gulshan. 2014. *Do Non Citizens Vote in US Elections.* ODU Undergraduate Research Symposium.

Andrews, Krista. *Personal Vulnerability and Global Warming Attitudes*. Undergraduate Research Symposium Spring 2013, and Midwest Political Science Association Spring 2013.

Arriola, Desiree. *Alliance Structure in Asia*. Undergraduate Research Symposium Spring 2013.

Brady, Christina. *Why Do Some People Stay Homeless and Others Do Not?* Undergraduate Research Symposium Spring 2013.

Brown, Nathaniel. *Legislation's Effects on Gun Violence*. Undergraduate Research Symposium Spring 2013 and CAA Undergraduate Research Conference Spring 2013.

Potter, Robert. *What Affects Stability in Voting Habits*. Undergraduate Research Symposium Spring 2013.

Wynn, I'Esha. *Does Age Influence Voter Turnout?* Undergraduate Research Symposium Spring 2013.

Deatley, Tyler. 2011. Candidate Characteristics and Vote Choice.

Hines, Charisse. 2010. *Critical Considerations for Alleviating Poverty in Africa*.

Jamison, Beth 2011 *Recoding and Reassessing the Ethnicity of Elites –A Reply to Harff*.

Jesmer, Albert. 2011. *Smoking and Public Policy Choice*.

McKee, Brandon. 2010. *The Effect of Coup Events on Economic and Political Stability*

Sheldon, Blake. 2011. *Does Living in a Flood Zone Change Global Warming Attitudes?*

Yarbrough, Alexandra. 2009. *Coastal Topography and Rip Currents at a Local Level*.

Young, Liz. 2011. *Explaining Individual Civic Engagement*.

PUBLISHED BOOKS, MONOGRAPHS, AND PAPERS

* indicates student coauthor.

Peer Reviewed Journals:

Jesse Richman and Ryan Roberts.* 2023. "Assessing Spurious Correlations in Big Search Data." *Forecasting*. 5(1). 285-296. https://doi.org/10.3390/forecast5010015

Khadijeh Salimi,* Jesse Richman, Regina Karp, George Richardson, and David F. Andersen. 2022. "Emergence of a Norm from Resistance: Using Simulation to Explore the Macro Implications of Social Identity Theory" *Systems* 10(5), 143; https://doi.org/10.3390/systems10050143

Jesse Richman, Lora Pitman,* and Girish Nandakumar.* 2022. "A Gamified Synthetic Environment for Evaluation of Counter-Disinformation Solutions" *Journal of Simulation Engineering*, *3*. https://jsime.org/index.php/jsimeng/article/view/13

James Battista, Michael Peress, and Jesse Richman. *2022*. Estimating the Locations of Voters, Politicians, Policy Outcomes, and Status Quos on a Common Scale. ***Political Science Research and Methods***. *Volume 10 , Issue 4 , October 2022 , pp. 806 - 822 DOI: https://doi.org/10.1017/psrm.2021.42*

Raymond Richman, Jesse Richman, and Howard Richman. 2020. Accrued Gains are not Income: An Administratively Simple Rollover Treatment for Capital Gains Taxation. ***International Journal of Economics and Finance*** 12 (12), 1-13. DOI:10.5539/ijef.v12n12p1

Raymond Richman, Jesse Richman, and Howard Richman. 2020. Corporate Tax Integration in Light of Falling Corporate Tax Rates: Using the 1803 British System for Withholding Taxes on Corporate Income as a Model. ***International Journal of Economics and Finance*** 12 (12), 36-56. DOI:10.5539/ijef.v12n12p36

Jesse Richman and Robert Potter.* 2020. Victory by the Weakest: Effects of Negative Advertising in N>2 Candidate Campaigns. ***Virginia Social Science Journal***. 54, 30-39.

Benjamin Melusky & Jesse Richman. 2020. When the local is national – A new high-water mark for nationalization in the 2018 United States state legislative elections**, *Regional & Federal Studies***, 30:3, 441-460, DOI: 10.1080/13597566.2020.1755656

Jesse Richman and Ryan Roberts.* May 2020. "When Do Low Roll Rates Indicate Party Influence? Evidence from Counterfactual Roll Rates" ***Legislative Studies Quarterly***. 45 (2) 177-206. https://doi.org/10.1111/lsq.12262

Jesse Richman, and Nurullah Ayyilmaz.* 2019. "Can the US and Europe contain Russian power in the European energy market? A game theoretic approach" ***Energy Strategy Reviews*** *26(November). https://doi.org/10.1016/j.esr.2019.100393*

Joshua Zingher and Jesse Richman. 2018. "Polarization and the Nationalization of State Legislative Elections" ***American Politics Research***. https://doi.org/10.1177/1532673X18788050

Jesse Richman and Krista Andrews.* 2016. "Climate Change Skepticism in the Flood Zone? Risk and Risk Perception Among Virginia Coastal Residents, 2010–2013" *Virginia Social Science Journal* 51: 4-11.

Jesse Richman. 2015.* "The Electoral Costs of Party Agenda Setting: Why the Hastert Rule Leads to Defeat" *Journal of Politics*. 77(4): 1129-1141.

Jesse Richman, Gulshan Chattha,* and David Earnest. 2014. "Do Non-Citizens Vote in US Elections?" *Electoral Studies*. 36(December) 149-157. http://authors.elsevier.com/a/1Pr7TxRaZ7uLD DOI: 10.1016/j.electstud.2014.09.001

James Battista, Michael Peress and Jesse Richman. 2013. *"Common-Space Ideal Points, Committee Assignments, and Financial Interests in the State Legislatures" State Politics and Policy Quarterly*. 13 (1) 70-87

Jesse Richman. 2012. "The Political Economy of Congressional Patent Policymaking in the Late 20th Century" *Review of Law and Economics.* *8 (1) 91-100*. DOI: 10.1515/1555-5879.1546

Jesse Richman and Joshua Behr. 2012. "Cross-pressure and the Propensity to Vote within Politically Active Churches" *Virginia Social Science Journal*. Vol. 47.

Jesse Richman. 2011. "Parties, Pivots and Policy: The Status Quo Test." *American Political Science Review*. Vol. 105, No. 1: 151-165.

Jesse Richman, Howard Richman, and Raymond Richman. 2011. "The Scaled Tariff: A Mechanism for Combating Mercantilism and Producing Balanced Trade" *Estey Centre Journal of International Law and Trade Policy*. 12(2) 82-103.

James Battista and Jesse Richman. 2011. "Party Pressure in the U.S. State Legislatures" *Legislative Studies Quarterly*. 36(3)

Jesse Richman and Andrew Pate.* 2010. "Can the College Vote Turn Out?: Evidence from the U.S. States, 2000-08" *State Politics and Policy Quarterly*. 10(1): 51-68. This article was also reprinted in Kevin B. Smith. 2011. *State and Local Government 2010-2011 Edition*. *Washington: CQ Press*, pp 25-33.

Jesse Richman. 2010. "The Logic of Legislative Leadership: Preferences, Challenges, and the Speaker's Powers" *Legislative Studies Quarterly*. 35(2): 211-233.

Jesse Richman. 2009. "Congress on the Line: The 2008 Congressional Election and the Obama Presidency" *White House Studies*, 2009. 9(1) 21-34.

Jesse Richman. 2008. "Uncertainty and the Prevalence of Committee Outliers." *Legislative Studies Quarterly*. 33(2): 323-347.

Books and Monographs:

Jesse T. Richman, Howard B. Richman and Raymond L. Richman. 2014. **Balanced Trade**. Lanham MD: Lexington Books.

Raymond L. Richman, Howard B. Richman, and Jesse T. Richman. 2008. **Trading Away Our Future: How to Fix Our Government-Driven Trade Deficits and Faulty Tax System Before it's Too Late**. Pittsburgh: Ideal Taxes Association.

Book Chapters:

Raymond L. Richman, Howard B. Richman, and Jesse T. Richman. "The United States Should Take Action Against China's Mercantilist Practices.*" pp. 139-143 in* Debra A Miller, ed. **Importing From China**. Greenhaven Press, Detroit, MI. 2009.

Selected Opinion and other non-peer reviewed articles:

"Has Hungary's opposition learned to coordinate against Fidesz, the right-wing governing party?" 2020. The Monkey Cage: Analysis. Washington Post.com. https://www.washingtonpost.com/politics/2020/01/13/has-hungarys-opposition-learned-coordinate-against-fidesz-right-wing-governing-party/

"How We Settle Problems in the United States" *Virginian Pilot*. November 11, 2018.

Jesse Richman. 2018. "Virginia Blues and Reds: The Virginia House of Delegates 2017 Election." *The Legislative Scholar. 3(1). pp* 17-19.

Jesse Richman and Joshua Zingher. 2018. "State Politics is Going National." *Virginia Capitol Connections Quarterly. Fall*. P. 16.

Jesse Richman. 2018. Virginia Blues and Reds: The Virginia House of Delegates 2017 Election. *The Legislative Scholar. VOLUME 3, ISSUE 1, SPRING 2018*

"College-Town Registration: Does it Matter?" *Virginia Capital Connections Quarterly*, Fall 2009.

"Predicting Politics – Projections, Turnout, and the Congress" *AltDaily* October 27, 2010

"No lock on power" *Virginian-Pilot* November 6, 2010.

Jesse Richman. 2012. "Virginia in the Balance" *The Ripon Forum*. 46 (3) 24-25.

Jesse Richman. October 25, 2012. "Will 2012 Be a Low-Turnout Election? Some Evidence from Google Search Activity" *The Monkey Cage.* http://themonkeycage.org/blog/2012/10/25/will-2012-be-a-low-turnout-election-some-evidence-from-google-search-activity

"The message sent by voters" *The Virginian Pilot,* November 8, 2013.

"Could non-citizens decide the November election" (with David Earnest) *The Monkey Cage, Washington Post. October 21, 2014.*

"Do Non-Citizens vote in U.S. Elections? A Reply to Our Critics" (with David Earnest) *The Monkey Cage, Washington Post,* November 2, 2014.

"The President and the Pipeline" (With Steve Yetiv) *The Globe and Mail (Canada)*, November 13, 2014. Reprinted in the *Virginian-Pilot* on November 14, 2014.

"By insisting on the Hastert Rule, the House Freedom Caucus is endangering the GOP" *The Washington Post Monkey Cage Blog.* October 20, 2015.

"Relying on the Hastert Rule Damages the Majority Party" *New York Times*. October 23, 2015.

"Why Obama Killed Keystone" *The Globe and Mail (Canada)*. (With Steve Yetiv). November 7, 2015.

"With Trump win, Keystone XL revival now a near certainty *The Globe and Mail (Canada)*. (With Steve Yetiv)

"How to improve our presidential debates in one easy step: Make the clock a moderator." *The Washington Post Monkey Cage Blog.* December 16, 2015.

"How to remove moderator bias from the presidential debates" (With Raymond Richman and Howard Richman). *American Thinker*. January 29, 2016.

"Trump is right. Let's get moderators out of the debates." *Washington Post Monkey Cage Blog*. September 15, 2016. https://www.washingtonpost.com/news/monkey-cage/wp/2016/09/15/trump-is-right-lets-get-moderators-out-of-the-debates/?utm_term=.7921ef8d3133

"Goodbye Mr. Smith" The Virginian Pilot, April 9th 2017.

"How Photo Identification can Increase Voter Turnout" *Virginia Capitol Connections Quarterly*. Spring 2013. Page 10. http://www.vccqm.org/qm_spr13_flipping_book/files/assets/common/downloads/2013%20Spring%20VCCQM.pdf

"Virginia Blues and Reds: The Virginia House of Delegates 2017 Election." *The Legislative Scholar.* Volume 3, Issue 1. Spring 2018.

Book Reviews

Jesse Richman. 2013. "Ideology and Spatial Voting in American Elections" by Stephen A. Jessee. New York, Cambridge University Press" *Political Science Quarterly*. 128 (3) 553-554.

Richman, J. (2016). Is bipartisanship dead? Policy agreement and agenda-setting in the House of Representatives. *Journal of Politics*, 78(2), E7-E8. doi:10.1086/685838

Jesse Richman. 2017. "Minority Parties in US Legislatures: Conditions of Influence by Jennifer Hayes Clark. Ann Arbor, University of Michigan Press." *Political Science Quarterly.* 132 (1) 167-168.

Selected Research Reports

Steve Parker, Randy Gainey, Jesse Richman, Tancy Vandecar-Burden and Wendi Wilson-John with Cassandra Jagroop and Nana Boateng. 2022. *Life in Hampton Roads - 2022*

The 13th Annual Life in Hampton Roads Survey Report
https://ww1.odu.edu/content/dam/odu/col-dept/ssrc/docs/life-in-hr-2022.pdf

Tancy Vandecar-Burdin, Randy Gainey, Jesse Richman, Steve Parker, Wendi Wilson-John, & James Valliere with Joshua Behr, Jennifer Whytlaw, Drew Avery & Adam Pyecha. 2021. *Life in Hampton Roads - 2021 The 12th Annual Life in Hampton Roads Survey Report. https://ww1.odu.edu/content/dam/odu/col-dept/ssrc/docs/life-in-hr-2021.pdf*

Tancy Vandecar-Burdin, Randy Gainey, Jesse Richman, Josh Behr, Wie Yus0f, Nicole Hutton Shannon, Steve Parker, Wendi Wilson-John, James Valliere, & Brittany Haslem. 2020. *Life in Hampton Roads - 2020 The 11th Annual Life in Hampton Roads Survey Report. https://ww1.odu.edu/content/dam/odu/col-dept/ssrc/docs/life-in-hampton-roads-2020.pdf*

Steve Parker, Jane Close, Randy Gainey, and Tancy Vandecar-Burdin with Jesse Richman. 2016. *Life in Hampton Roads Report The Seventh Annual Life in Hampton Roads Survey. https://ww1.odu.edu/content/dam/odu/col-dept/al/docs/survey/life-in-hampton-roads-survey-full-report.pdf*

Steve Parker, Charles Bush, Jesse Richman, and Tancy Vandecar-Burdin. 2014. *Life in Hampton Roads Report: The Fifth Annual Life in Hampton Roads Survey. http://ww2.al.odu.edu/ssrc/doc/LIHR__Report_2014_FINAL.pdf*

Jesse Richman. 2013. *Old Dominion Poll: Governor's Race 2013. http://al.odu.edu/ssrc/doc/2013OldDominionPollAnalysis_corrected.pdf*

Sara Resnick, Tarah Gibbs, Charles Bush, Steve Parker, Tancy Vandecar-Burdin and Jesse Richman. 2013. *Life in Hampton Roads Report: The Fourth Annual Life in Hampton Roads Survey http://al.odu.edu/ssrc/doc/LIHR__Report2013WithComparisons.pdf*

Sara Resnick, Tarah Gibbs, Charles Bush, Steve Parker, Tancy Vandecar-Burdin and Jesse Richman. 2013. *New Hampshire Public Mental Health Consumer Survey Report – 2013.*

http://www.dhhs.state.nh.us/dcbcs/bbh/documents/public-mental-health-survey.pdf

Jesse Richman. 2012. Old Dominion Poll: Presidential Poll Toplines and Crosstabs.
http://al.odu.edu/ssrc/doc/Old_Dominion_Poll_4_Crosstabs.pdf ;
http://al.odu.edu/ssrc/doc/Old_Dominion_Poll_Frequencies.pdf

Jesse Richman. 2012. Old Dominion Poll: June 2012 Polling Toplines and Crosstabs.

http://al.odu.edu/ssrc/doc/toplines.pdf   http://al.odu.edu/ssrc/doc/Polling_Crosstabs.pdf

SELECTED GRANTS, CONTRACTS, AND FELLOWSHIPS AWARDED

Fulbright Specialist Grant
Advanced Graduate methods in Budapest Hungary
2022

ODU College of Arts and Letters Summer Research Grant
2020
$3000

DTEX – NATO Innovation Hub
2020
$5000 (my share of much larger grant)

Fulbright Grant
Teaching and Research in Budapest Hungary
2019.

Life in Hampton Roads Survey (Co-PI)
Old Dominion University Research Foundation
2013, 2020, 2021, 2022, 2023
$15,000

New Hampshire Mental Health Survey (Co-PI)
New Hampshire Department of Health and Human Services
2012-2015
$54,000 annually

American Political Science Association Congressional Fellowship
2011- 2012
$38,000

Virginia Legislators' Knowledge, Awareness and Perceived Risks Concerning Sea Level Rise

2011-2012
(Consultant)
$34,371

Political Polling Project   **(Co-PI 50% share)**
Old Dominion University Research Foundation/ Virginian Pilot
Summer 2011 – Fall 2013
$54,145

Interdisciplinary Methodology and Research Center (Co-PI)
ODU URAP
Fall 2011 – Spring 2015
~$20,000 per year.

Faculty Proposal Preparation Program
Spring 2009
Course Release.

Summer Research Fellowship,
Old Dominion University Research Foundation
Summer 2008
$6000

RESEARCH PAPERS PRESENTED AT PROFESSIONAL MEETINGS

"Countering Misinformation while respecting the First Amendment" Invited Roundtable, APSA conference, September 2023

"Countering Internet Misinformation" American Political Science Association Annual Conference. August 2023.

"Party Coordination, Campaign Strategy, and the 2022 Hungarian Parliamentary Election" Southern Political Science Association Conference. Tampa Fl. January 2023. (With Paul Pepi).

"Taking Turns with a Chess Clock: Debate Moderation and Civility" Midwest Political Science Association Annual Conference. April 2022.

"Protecting Free Speech While Countering Internet Misinformation: The Rebuttal Strategy" Midwest Political Science Association Annual Conference. April 2022.

"New Populism and Democracy in Comparative Perspective – the Case of Hungary" International Conference on New Populism and Responses of the 21st Century (virtual conference). September 24-25 2021. Organized by The University of Dayton and Christ University India.

"How to Fix the Filibuster: Insights from the Filibuster Show-Down Model" Midwest Political Science Association Annual Conference. April 2021.

"Media Fact Checks, Polarization, and Trust in Contemporary US Politics" Southern Political Science Association Annual Conference. January 2021. (With David Richman)

"When Do Low Roll Rates Indicate Party Influence? Evidence from Counterfactual Roll Rates." Midwest Political Science Association Annual Conference, Chicago Illinois. April 2019. (with Ryan Roberts)

"Information, Mobilization, and the Voter Registration Deadline: When and why do people search too late for registration information?" Midwest Political Science Association Annual Conference, Chicago Illinois. April 2019.

"Media Fact Checks, Polarization, and Trust in Contemporary US Politics" Keynote Address at U.S. Politics and the Media, School of English and American Studies, ELTE, Budapest Hungary. November 2019 and Southern Political Science Association conference January 2021

"The Nationalization of State Politics: the Changing Partisan Composition of State Legislatures in an Era of Polarized Politics" (With Joshua Zingher) American Political Science Association, Philadelphia PA September 2016, and Midwest Political Science Association April 2017.

"Roll Rates and Party Influence -- Making the Non-Party Null Explicit" Southern Political Science Association, San Juan PR, January 2016 and March 2019 Duke University Bill Keech Conference.

"Does Mercantilism Pay? National Power and the Balance of Payments" (With Howard Richman and Raymond Richman) Southern Political Science Association, San Juan PR, January 2016.

"The Negative Campaign Truel" Midwest Political Science Association, Chicago IL. April 2015

"Validating Data on the Search for Political Information: Quantifying and Addressing the Challenge of Spurious Correlation" Society for Political Methodology Conference, Athens GA, July 2014.

"Do District Interests Matter in State Legislatures?" (With James Battista) State Politics and Policy Conference, May 2014.

"The Electoral Costs of Party Agenda Setting: Why the Hastert Rule Leads to Defeat" Midwest Political Science Association, April 2014.

"Do Non-Citizens Vote in U.S. Elections" (with Gulshan Chattha and David Earnest) ODU Undergraduate Research Symposium, February 2014.

"Policy Representation in State Legislatures" (with Michael Peress and James Battista) Midwest Political Science Association, April 2013 and American Political Science Association, September 2013, and Ideal Points conference, MIT, Cambridge MA May 2015.

"Cell Phones, Land Lines, and the Future of Public Opinion Research," (with Tancy Vandecar-Burdin) Midwest Political Science Association, April 2013.

"Searching for the Vote" Midwest Political Science Association, April 2013

"Risk versus Risk Perceptions in Climate Policy" (With Krista Andrews) Midwest Political Science Association, April 2013.

"Pivotal Politics Bargaining" Midwest Political Science Association, April 2012 and Public Choice Society, March 2014.

"What Divides Legislators: The (Issue) Content of the Primary Axis of Legislative Conflict" (with James Battista) American Political Science Association, September 2011.

"The Policy Legacy of the 111th Congress" Midwest Political Science Association, April 2, 2011 and American Political Science Association September, 2011.

"Paradoxes of the Roll Rate: When Party Power Isn't" Midwest Political Science Association, March 31, 2011.

"Spatial Voting in State Legislative Elections" (With James Battista) American Political Science Association. September 2010.

"Parties, Pivots and Policy: The Status Quo Test" Political Methodology Conference.

"Sources of Spatial Constraint: Preferences, Parties, Institutions and Information" (With James Battista) Southern Political Science Association and Midwest Political Science Association. 2010.

"The 2008 Congressional Election and the Obama Presidency" Virginia Political Science Association, November 2009.

"Votes, Preference Estimates, and Party Power: Measuring Party Pressure in the States" (with James Battista) American Political Science Association, September 2009.

"Outliers Incorporated: Are Committees Composed of Policy-Specific High Demanders?" (with James Battista) Midwest Political Science Association, Chicago, April 2009 and State Politics and Policy Conference, Chapel Hill NC, May 2009.

"A New Unified Dataset of Committee Assignments, Financial Interests, and Common Space Ideal Points" (with James Battista) Midwest Political Science Association, Chicago IL, April 2009.

"Parties Versus Pivots" Paper presented at the Southern Political Science Association annual convention, January 2009.

"Does Policy Follow Parties to the Extremes?" Presented at the Going to Extremes conference in Hanover NH, June 19-21 2008, and the American Political Science Association conference in Boston, August 2008.

"The Logic of Legislative Leadership" State Politics and Policy Conference, Philadelphia. May 2008.

"Why Following Cox and McCubbins' First Commandment Bankrupts Party Cartels." Midwest Political Science Association 2008). Presentation at Duke University, November 13, 2008.

"Identifying the Policy Space" (SPSA 2007, MPSA 2008).

"Mobilizing Voters: Why the Religious Right is Overrated" (with Joshua Behr). KPSA 2007.

"Getting the Conditionality Right for Conditional Party Government: The Policy Space and the Supply of Political Leadership" Midwest Political Science Association, 2006

"Voting Among College Students, A Critique of the Literature" (With Andrew Pate). Presented at the Southern Political Science Association, 2007.

"Geography and Policy: How the Changing Location of Interests Altered IP" (with William Keech) Midwest Political Science Association, 2007.

"Self Selection by High-Demanders to Informational Committees: Ideological Certainty and the Prevalence of Committee Outliers" Midwest Political Science Association 2005.

"Policy Space and Ideological Space: Why the Issue Dimensionality of Political Systems Varies." (Portions presented at Midwest Political Science Association 2004, Public Choice Society, 2004 American Political Science Association 2004.)

"Loss Aversion and Congressional Budgeting" (Midwest Political Science Association 2002)

"Interest Group Coordination, Partisan Competition, and Distributive Politics" (Midwest Political Science Association 2003 EITM poster)

"Political Economy of the Patent System" (With William Keech) Midwest Political Science Association April 2001.

"Bipartisanship" (Culture and Visions Graduate Student Conference at Duquesne University, 1999)

RESEARCH AND MANUSCRIPTS UNDER REVIEW

"Taking Turns with a Chess Clock: Debate Moderation and Civility" at *Argumentation and Advocacy*

"Planning Sustainability through a Build Back Better Strategy: A Model of LTRG Experiences" at *Sustainability*. With *Eduardo Landaeta.*

HONORS, AWARDS, and PRIZES

- Fulbright Specialist Grant 2021.
- Fulbright Grant. 2019.
- Joel S. Lewis Faculty Award for Excellence in Student Mentoring. 2017.

- Provost's Award for Outstanding Undergraduate Research Mentor, 2013

- American Political Science Association Congressional Fellow (2011-2012)

- Certificate of Excellence in Promoting Undergraduate Research (2011, 2013, 2014, and 2023)

- Shining Star Award for outstanding commitment to the development of students (2011 and 2014).

- Rock Star Award for outstanding commitment to the development of students (2015).

- Emma Locke Memorial Award (1999)

- Udal Scholarship (1998)

- Bracken Award (1998)

- Gow Fellowship for internship in Senator Arlen Specter's Washington DC office (1998)

- Phi Beta Kappa Junior Prize (1998)

- Chancellor's Scholar (1995-1999)

- National Merit Scholar (1995)

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Political Science Association
> Legislative Studies Section
> State Politics Section

Midwest Political Science Association

Southern Political Science Association

UNIVERSITY SERVICE

Departmental

Political Science Department and Geography Brown Bag Seminar Series Organizer (2008-present)

Judge, "GIS Day" at ODU. (Fall 2008, Spring 2010 and Fall 2010).

Political Science and Geography Curriculum Committee (2007-2009 and 2010-2011)

Department of Political Science and Geography Search Committee (Co-Chair 2010)

Department of Political Science and Geography Search Committee (2008-2009)

Chair: Departmental Research Methods Working Group (2010-2011)

Department of Political Science and Geography Ad Hoc MA Proposal Committee (2008-2009)

Chief Departmental Advisor (Fall 2011)

Chair of search committee in Fall 2012 for a position in political science.

Political Science Assessment committee 2012 - 2014.

Political Science and Geography P&T Committee 2012 – present.

Chair of search committee in Fall 2013 for a position in political science

Chair of search committee in Fall 2014 for a position in political science

Chair of search committee in Spring 2015 for a position in political science.

Served as a member of a search committee for a different political science search committee in Fall 2015 and took over as chair of that search in January 2016.

Chaired three faculty search committees in 2016. One was in the spring of 2016. The other two were in the Fall of 2016.

Chair of the adjunct portfolio review committee. 2016 - 2017

Chair of the Program Assessment for Political Science committee 2014 – 2023.

Internship coordinator, Department of Political Science and Geography. 2018 – present.

Editor, Department of Political Science and Geography newsletter *Geography and Politics*. 2018 – present.

Political Science and Geography Alumni Relations committee co-chair 2018 – present.

Chair of chairing ad-hoc committee developing the department's response to the S course. 2021.

Advisor, Pi Sigma Alpha Political Science Honors Society, 2020 – present.

Portfolio Review Committee, Department of Political Science and Geography, 2021-present.

College

Faculty Director of Social Science Research Center, Summer 2012 to 2015.

Acting Director, Graduate Program in International Studies: Fall 2015.

Dean's Advisory Council 2007-2008 and 2013 - 2015.

Graduate Studies Committee Fall 2016.

Instruction Committee 2016-2018, and 2021.

Practicum Committee 2018 – 2023.

College of Arts and Letters Long Range Planning Committee (2007-2009)

University

Judge, "Communities of Research: Discover, Innovation and Entrepreneurship: 2008 Annual Research Exposition" (March 2008)

Host – took David Gergen on tour and to the airport after graduation ceremony (May 2009)

Old Dominion University Faculty Senate Committee D (Research) (2008-2009)

Reviewer: Multidisciplinary Seed Funding grants for the Office of Research, 2013-2014.

Undergraduate Research committee 2016-2017

Modeling and Simulation Steering Committee 2017- present.

ODU Faculty Senate Fall 2022 – present.

Office of Research Panelist for multiple panels about Fulbright program, 2020-2022.

PROFESSIONAL SERVICE

Editorial Board, *Legislative Studies Quarterly*. 2013-2016.

Peer reviewer for proposals originating in Hungary for the Hungarian Fulbright Commission in summer 2022, and interview panelist, Fall 2019.

Panel member Fall 2022 evaluating proposals made by Americans seeking to conduct research abroad using a Fulbright grant. I served on the Fulbright National Screening Committee (NSC).

Invited panelist: "Disinformation and the First Amendment" American Political Science Association September 2013.

Invited talk: "Searching for the Vote" College of William and Mary (February 2013)

Invited talk: "The Policy Legacy of the 111th Congress" W. Allen Wallis Institute of Political Economy and Department of Political Science. University of Rochester. (April 2011)

Invited talk: "Why Party Cartels Go Bankrupt" Duke University PIPA Series. (November 2008)

Invited talk: Lecture on American Political Philosophy as part of the Hunan Advanced Business Management and Public Administration Training Program.   (January 2007)

Discussant and chair roles

Discussant for Wendy Schiller Book Seminar "Corruption and Constitutional Design: The Failed Experiment of Indirect Elections of U.S. Senators" College of William and Mary. (April 2013)

Chair "Virginia Politics: 2009 Election Roundtable" Virginia Social Science Association (November 2009)

Panelist "2008 Election Roundtable" Virginia Social Science Association (November 2009)

Chair and Discussant "American Politics" GPIS Graduate Student Conference (February 2010)

American Political Science Association Conference, August-September 2013. Discussant.

Midwest Political Science Association Conference. April 2014 discussant on multiple panels.

Midwest Political Science Association Conference. April 2015 discussant on multiple panels.

Southern Political Science Association Conference. January 2016 discussant on multiple panels.

Midwest Political Science Association Conference. April 2016 discussant on multiple panels.

State Politics and Policy Conference. State College PA, State Politics Section of APSA June 2018. Discussant and session chair.

Graduate Conference in International Studies, Old Dominion University. Chair and Discussant. Most years from 2017 – present.

Chair and Discussant, "Strategic Choices in Legislatures" Midwest Political Science Association. (April 2008)

Chair and Discussant, "Life in Legislative Minorities" Midwest Political Science Association. (April 2008)

Chair and Discussant, "Floor Behavior in the House" Midwest Political Science Association. (April 2009)

Chair and Discussant, "State Legislative Professionalization" Midwest Political Science Association. (April 2011)

Discussant, "Participation Among the Young" Midwest Political Science Association (April 2013)

Discussant, "EITM American" (April 2013)

Discussant, "Internal Resources in Congress" Midwest Political Science Association. (April 2011)

Discussant, "Congress and the Executive: Balancing Power" Midwest Political Science Association. (April 2007)

Discussant, "The Politics of Legislative Spending Decisions" American Political Science Association. (August 2008)

Peer Review for journals

Peer reviewer for numerous scientific journals including American Political Science Review, American Journal of Political Science, Journal of Politics, Legislative Studies Quarterly, State Politics and Policy Quarterly, Politics and Policy, Contemporary Security Policy, American Politics Research, Political Studies, and many others. Often multiple peer reviews per month.

Number of reviews completed for selected journals:

Journal of Politics: 20 reviews

Legislative Studies Quarterly: 15

American Political Science Review: 9 reviews

State Politics and Policy Quarterly: 8 reviews

American Journal of Political Science: 7 reviews

Example of reviews completed in 12 months ending in September 2023.

- American Political Science Review
- American Journal of Political Science
- Political Research Quarterly
- International Political Science Review
- Sustainability (2 articles)
- Social Science Computer Review

- International Journal of Environmental Research and Public Health (3 articles)
- Legislative Studies Quarterly
- Economics and Business Letters
- Energies
- WW Norton American Government textbooks. (2 books)
- Lexington Books.

COMMUNITY ENGAGEMENT

Media Engagement

I regularly appear on local television, and I have also appeared on most of the national networks including CBS, ABC, CNN, and Fox News.

Selected Media Interviews

"Can Obama Win Virginia" Wavy TV 10. August 26th 2008

"The Obama effect and the race in Virginia." Public Radio International – Capitol News Connection. August 4th 2008

Interview with Aaron Applegate. Virginia Pilot, August 2008.

Interview with Aaron Applegate. Virginia Pilot, July 2008.

"Evangelical groups not as powerful as in the past within GOP" The Virginia Pilot September 1, 2008.

Interview with Tim McGlore, Virginia Pilot, October 2008.

Interview with Bob Lewis, Associated Press based in Richmond. 8/5/08.

Interview with Jummy Olabanji of News Channel 3. September 2008.

Interview with Rich Quinn, Virginia Pilot. 11/9/07.

Interview with Julian Walker. Virginia Pilot, May 28, 2009.

Interview with Patrick Austin. Mace and Crown, March 24, 2009.

Interview with Julian Walker, Virginia Pilot. May 2009.

Interview with Andy Fox. WAVY Chanel 10, September 1, 2009.

Interview with Patrick Terpstra. WVEC Chanel 13 News, September 2, 2009.

Interview with Bill Flook. D.C. Examiner. October 26, 2009.

Interview with Bill Flook. D.C. Examiner. January 27, 2010 on VA Governor's response to the state of the union.

Interview with Andy Fox. WAVY Chanel 10, October 30, 2009.

Interview with Virginia Pilot for article on education reform issues. February 2010

Interviews with Mace and Crown reporters (2) February 2010 and March 2010.

Interview with Patrick Terpstra. Chanel 13 News on the VA Attorney General's challenge to the constitutionality of health care reform. March 22, 2010

Interview with Kerry Dougherty, columnist for the VA Pilot on the use of special procedures in Congress to pass health care legislation. March 22, 2010.

Interview with Jummy Olabanji, News Channel 3 in April 2010.

Interview with Patrick Terpstra WVEC 13 News in April 2010.

Interview with Dave Forster, Virginia Pilot. July 2010.

Appeared on Cathy Lewis' "Hear Say" program on WHRO. July 12, 2010

Interview with Gordon Lubold, Politico.com for article on the politics of the proposed JFCOM closing. September 21, 2010.

Interview with Patrick Terpstra. Chanel 13 News on fact-checking ads in the 2nd Congressional District 2010 campaign. September 22, 2010

Interview with Dorothea Hahn (correspondent for the German periodical Die Tageszeitung) on the role played by health care in the U.S. Congressional Midterm elections. October 5, 2010.

Interview with Lorraine Millot (correspondent aux Etats-Unis for the French periodical Libération) on the role played by health care in the U.S. Congressional Midterm elections and the 2nd Congressional district. October 5, 2010.

Interview with Andy Kaufman (Fox 43 Television) on voter mobilization in Congressional elections. October 8, 2010.

Appearance on the Andy Bann Show (AM 1650) to discuss fact-checking campaign ads in the 2nd Congressional district. October 9, 2010.

Interview on the congressional election with reporter Daniel Sturgeon, correspondent for Chunichi Chimbun, a major regional paper serving Tokyo and Nagoi, Japan. The Chunichi Chimbun is the fifth largest newspaper in the world in terms of circulation. October 2010.

Interview with Alex Parker of *US News and World Report.* On the 2nd Congressional District and the Midterm Congressional Election. October 2010.

Interview with Dan Crescenzo of *Inside Business* the Hampton Roads Business Journal on local governance issues in Norfolk VA. February 2011.

Appearance as a panelist on the "Assembly Conversations" series that runs on most Virginia public radio stations, March 1, 2011.

Appearance as a panelist on WHRO's "What Matters" Editorial roundtable to discuss the 2011 General Assembly session, March 4, 2011.

Interview on the possible government shutdown. WVEC Chanel Thirteen News. April 2011.

Interview on 30th Senate District primary with Victor Zapani, Washington Post.

Quoted in Virginian Pilot story reporting results from the ODU / Virginian Pilot poll. August 30, 2011.

Interview on the 2012 Senate Election with Philip Walzer at the Virginian Pilot. September 5, 2011.

Quoted in "Election results likely to decide the sequestration debate" *The Daily Press*. September 9, 2012.

Quoted in "Political-ad tsunami swamps southeast Virginia" *The Washington Times*. September 11, 2012.

Quoted in "Election 2012: Democrats, Republicans offer clear choice on taxes" *The Daily Press*. September 16, 2012.

Social Science Research Center study referenced in "ODU study: 89% want light rail extended" WAVY-TV, September 18, 2012.

Quoted in "ODU Survey shows big support for light rail to Va. Beach" WVEC-TV September 19, 2012.

Quoted in "Life in Hampton Roads is on the upswing, poll finds" *Virginian Pilot,* September 19 2012.

Interview with Swiss Public Radio, September 27, 2012.

Quoted in "Obama's still up in Virginia, but Romney's closing gap" *Virginian Pilot,* October 24, 2012.

Old Dominion Poll quoted in "Obama gains in battleground states" *The Gulf Today* (United Arab Emirates). October 25, 2012.

Quoted in "U.S. Senate: Allen touts record as governor" *The Daily Press*. October 27, 2012.

Quoted in "'Poll watchers' unlikely to cause Election Day problems, officials say" *The Daily Press,* November 3, 2012.

Quoted in "Some Virginia voters say long lines prove it's time for a change" WVEC-TV November 6, 2012.

Guest on "Hear Say with Kathy Lewis" WHRO-89.5 radio program. September 2012, January 2013, and September 2013.

Interview with Monica Davey, New York Times Chicago Bureau Chief on single party control in state legislatures. April 1, 2013.

Quoted in "Democratic candidates getting more money from outside VA than from within" *Watchdog.org,* May 2, 2013.

Quoted in "Stolle brothers hope for ballot box hat trick" *The Virginian Pilot*. September 2, 2013.

Quoted in "Unopposed candidates leave voters little choice" *The Virginian Pilot*, October 3, 2013.

Quoted in "Obama yet to make appearance for VA Democrats" *The Virginian Pilot,* October 22, 2013.

Quoted in "Suffering through a fact-killing epidemic" *The Virginian Pilot*, October 27, 2013

Quoted in "VA Governor's race showing early signs of presidential race 2016" WVEC-TV October 28, 2013.

Quoted in "McAuliffe's wealth could create conflicts of interest" *Virginian Pilot*, October 31, 2013.

Quoted in "Local Republicans mum on future of gay bias measure" *Virginian Pilot,* November 8,2013.

Quoted in "Gas royalties dispute puts SW Virginia center stage in governor's race" *Bristol Herald-Courier* November 3, 2013.

Interview on WAVY-TV concerning prospective Attorney General race recount, November 7 2013.

Kathy Lewis Show (WHRO-radio) hour long guest appearance discussing Attorney General recount and 6th Senate District special election. November 20, 2013.

Quoted in "City officials are neighbors in Portsmouth" *The Virginian Pilot*, Nov. 20, 2013.

Quoted in "VA. Delegate proposes minimum-wage increase*" The Virginian Pilot.* January 5, 2014.

Quoted in "McDonnell comes to end of the line as governor" *The Virginian-Pilot* January 8, 2014.

Quoted in "As Congress Does Little To Address Wage Erosion, States Are Moving With Their Own Minimum Wage Legislation" *International Business Times*, Jan. 29, 2014.

Interview on WVEC-TV concerning implications of final outcome of 6th Senate district recount. January 27, 2014.

Interview on WVEC-TV concerning upcoming Virginia gay marriage cases. February 3, 2014.

Quoted in "VA Senate Race Raking in Millions with Months to Go" *Virginian Pilot,* April 15, 2014.

Quoted in "A Week of Shockers Promises Change in Virginia Politics" *Daily Press / Pharmacy Choice*. June 15, 2014.

Interview on WAVY-TV "ODU survey: Life in Hampton Roads is good" August 18, 2014.

Quoted in "Survey: Quality of life improving in Hampton Roads" *Virginian Pilot* August 19, 2014.

Quoted in "Local economic confidence rising, ODU report says" *Virginian Pilot* August 20, 2014.

Quoted in "ODU report points to ticks as major menace" *The Daily Press* August 20, 2014.

Quoted in "ODU Survey: Tolls, traffic divisive in Hampton Roads" *WAVY.com*. August 21, 2014.

Quoted in "Survey shows Hampton Roads residents have wrong idea about flooding, flood insurance" *The Daily Press / InsuranceNews.net* August 25, 2014.

Work referenced in "There's no place like wherever you call home" *Opinion, The Virginian Pilot,* August 25, 2014.

Quoted in "Politics could be issue in McDonnell Jury Deliberations" *The Virginia Gazette / Daily Press* September 3, 2014.

Quoted in "Hard numbers can't alter media narrative on vote fraud" *Opinion, The Washington Times.* October 29, 2014.

Quoted in: "Study: Noncitizen voting may affect close races" *The Virginian-Pilot,* November 9, 2014.

Interview with Canadian television network CTV on November 13, 2014 on Keystone XL pipeline politics.

Interview with Eric Kane WVEC TV on VB ethics issues.

Quoted in "McDonnell Trial: Shorter sentence still sends strong ethics signal" *The Daily Press*, January 7, 2015.

Interview with Eric Kane, Chanel 13 News on Federal corruption investigation of VB ethics issues. February 3, 2015

Interview with Austin Bogue, The Virginia Gazette, February 9, 2015.

Interview with WVEC-TV, March 19, 2015. Topic: Jim Webb Presidential Campaign.

Quoted in "Regional Reboot" *Virginia Business*. April 30, 2015.

Quoted in "Experts: Divided Portsmouth Council Needs Counseling." *The Virginian Pilot* May 18, 2015.

Quoted in "Now, it's easy to lobby politicians – and no one ever has to know." *The Virginian Pilot,* May 21, 2015.

Quoted in "Experts see no ethical problems with Portsmouth Mayor Wright's property purchases." *The Virginian Pilot*, July 7, 2015.

Quoted in "Virginia Senate is up for grabs, and VA Beach race is key." *The Virginian Pilot, July 10, 2015.*

Quoted in "Court: Ex-VA. Gov. McDonnell can't remain free during appeal" *The Virginia Gazette*, August 20, 2015.

Interview WVEC-TV "Newsmaker: Response to President Obama's oval office speech." December 7, 2015.

Quoted in "Open Seat, redistricting, little time: Rigell's departure sets of scramble." *The Daily Press*, January 16, 2016.

Four appearances as a "Newsmaker" on Chanel 13 news 4:00 newscast.

Fox News interview on GOP candidate trade policies, April 30, 2016.

CNN news interview on vote fraud, December 6 2016.

ABC news interview on vote fraud January 2017.

Quoted in "Trump, Cruz, Carson lined up for Regent University stops before Super Tuesday" *Southside Daily,* February 19, 2016.

Quoted in "Virginia Primary Voters Head to the Polls" WVEC-TV March 1, 2016.

Quoted in "South Hampton Roads students learning how unique this presidential race is - or isn't" by Mike Connors, The Virginian Pilot March 13, 2016.

Panel Participant "Political expert panel discusses Super Tuesday 3 with NewsChannel 3" http://wtkr.com/2016/03/15/north-carolina-primary-round-table/

Quoted in "How did the light rail debate in Virginia Beach become so nasty?" By Jordan Pascale. The Virginian-Pilot. April 2, 2016.

Quoted in "Republican State Sen. Frank Wagner running for governor." 13newsnow.com. Also appeared on news broadcast. August 31, 2016.

Quoted in "Trump, Clinton each boast about military support" WVEC-TV. Online article and appearance in newscast.

Quoted in "Reality Check: The week in whoppers" CNN International, October 23, 2016.

Quoted in "Watch: voters in Hampton Roads tell you what they really think about Trump's win." WTKR-TV. Online and on newscast.

Quoted in "Science Pubs: Talk about Why Trump Won with an ODU Professor of Political Science*"* Alt Daily, November 10, 2016.

Quoted in "Trump's claim that 'millions' of illegal voters won Clinton the popular vote 'not at all' plausible, says key expert." Business Insider, November 28, 2016.

Quoted in "115th Congress convenes, GOP looks to gut ACA" WVEC-TV Online and newscast. January 4, 2017.

Note: records of media interviews from 2017 through 2022 were lost. I continued to engage with the media at a high level throughout this time period, however.

February 2, 2023. Interview with Joe Dodson. Courthouse News Service for article previewing Virginia's 4th congressional district special election.

Monday February 27. Interview with Norfolk Chanel 3 News on President Biden's visit to Virginia Beach.

Thursday March 30th. Interview with Norfolk WTKR (3) News live on set at 11:00 pm. Topic: Indictment of Donald Trump.

Tuesday April 4. Interview with Norfolk WTKR (3) News live on set at 11:00 pm. Topic: Indictment of Donald Trump.

Wednesday April 26, 2023. Interview with Gabe Stern with Associated Press Nevada concerning the dwindling number of divided state governments. https://apnews.com/article/nevada-governor-veto-lombardo-61442d25ff532b544effe92ce7efe349
June 8 2023 interview with Laura Philion WHRO news. https://whro.org/news/local-news/38879-pat-robertson-who-intertwined-gop-and-religion-dies-at-93

September 20th interview with WTKR news. https://www.wtkr.com/news/hampton-roads-campaigns-turn-negative-as-early-voting-begins-friday

Selected community talks:

I regularly give lectures and talks to local community organizations of all political persuasions.

Election Analysis for the Norfolk League of Women Voters. 2006

Panelist "The Election of 2006: Winds of Change?" Sponsored by the Department of Political Science and Geography. (October 2006)

Panelist "The War in Iraq: Domestic and International Dimensions" Sponsored by the Department of Political Science and Geography and the Graduate Program in International Studies. (April 2007)

Election Analysis for the Norfolk League of Women Voters. 2007

Speech to VA Beach Republican Women Voters "Negative Campaigning and the Future of the Republican Party." (January 2008)

Introduction of "Wag the Dog" for the 2008 *On Film Festival* sponsored by ODU and the city of Norfolk. (April 2008)

Panelist "Not a Blue State, Not a Red State But United States: A Post Election Conversation on Race, Gender and Politics" YWCA South Hampton Roads. (December 2008)

Panelist "The Race for the Presidency: The 2008 Primary Season" Sponsored by the Department of Political Science and Geography. (February 2008)

Election Analysis for the Norfolk League of Women Voters. 2008

Panelist "The Race for the Presidency: The 2008 General Election" Sponsored by the Department of Political Science and Geography. (October 2008)

Presentation to "Political Pages" Norfolk OffBase. (July 2009)

Speech to VA Beach Republican Women Voters "The 2009 Virginia Elections" (November 2009)

Election Analysis for the Norfolk League of Women Voters. 2009

Election Analysis for the Norfolk League of Women Voters. 2010

Lecture "America at 235: Prospects, Opportunities and Challenges in American Politics." Old Dominion University Institute for Learning in Retirement.   (May 2011)

Election Analysis for the Norfolk League of Women Voters. 2011

"Election wrap up," Construction Trade Association, November 13, 2012.

"Election analysis," Norfolk Democratic Party. November 14, 2012.

Political analysis, Norfolk League of Women Voters, August and December 2012.

Moderator for a Congressional Candidates forum organized by ODU student government and the College Democrats and College Republicans. October 2012

The Planning Council, October 2012

Election Analysis, Norfolk League of Women Voters, November 2013.

Election Analysis, WCTV TV election night panel.

Election Analysis, Hampton Roads global Commerce Council (HRGCC), November 2013.

"The Morning After Election Café" featured on WHRO FM. (November 2013)

"The Emancipation and the Constitution" presentation as part of event Commemorating the 150th Anniversary of the Emancipation Proclamation. (November 2013)

Presentation to CIVIC Scholars September 16 2014.

Election Analysis, Norfolk League of Women Voters, November 2014.

Reflections on the Midterm Election Panel, ODU. November 2014.

Election Analysis, Norfolk League of Women Voters, November 2015

Election Analysis, Norfolk League of Women Voters, November 2016.

Norfolk Collegiate Betty M and William B. Jones Humanities Speaker Series. Panelist on "The Changing Role of Political Parties in the Lives of American Citizens" (October 15, 2016).

ODU Science Pub. "Science and Democracy in American Elections," at Commonwealth Brewing Co., Virginia Beach, Fall 2016.

Chanel 3 Norfolk Election Night Expert Panel. Fall 2016.

Political Science and Geography Department Spring 2016 Primary Election Panel Discussion (organizer and panelist)

Political Science and Geography Department General Election Panel Discussion (organizer and panelist). November 2016.

Panel Discussion on Photography and Politics organized by Peter Eudenbach, October 26th 2016. Goode Theatre Foyer.

Portsmouth Public Library Second Tuesday Forum. "Polarization, Realignment, and American Politics" (October 11, 2016).

Panelist and organizer: Post-Sabato Discussion for Friends of the Library Larry Sabato talk. (October 13, 2016).

Virginia RIMS conference "The 2016 Election and the American Economy."   Thursday October 6, 2016.

Several appearances as a "Newsmaker" on Channel 13 News 4:00 pm broadcast. 2016.

Moderator: Norfolk Mayoral Race Forum at ODU. Wednesday April 13th 2016.

Judicial Watch Special Panel Presentation on Voter Fraud. February 16, 2017.

Election Analysis, Norfolk League of Women Voters, November 2017.

Election Analysis, Beach Republican Women Voters, November 2017.

Political Science and Geography Department Spring 2017 Panel on the Federal Budget under Trump (organizer and panelist)

Appearances as a "Newsmaker" on Channel 13 News 4:00 pm broadcast, and many interviews for local television and other media, 2017.

Election Analysis, Norfolk League of Women Voters, November 2018.

Political Science and Geography Department Fall 2018 Panel on the Midterm election (panelist)

Appearances as a "Newsmaker" on Channel 13 News 4:00 pm broadcast, and many interviews for local television and other media. 2018.

In 2018 made arrangements for and hosted a presentation by a group of Russian political activists who were visiting Norfolk as part of the Sister Cities program. They gave a fascinating presentation to a packed house on the question of "Elections in Russia."

In Fall 2019 I served as a Fulbright scholar in Budapest Hungary. Budapest Hungary I gave a number of talks including:

Panel discussion on the US Presidential Election in conjunction with the American Corner Budapest. November 12, 2019.

Panel Discussion on NATO as part of Day of Diplomacy at National University of Public Service. Fall 2019.

Panel Discussion on US Trade Policy at National University of Public Service. Fall 2019.

I also gave multiple interviews to Hungarian media outlets during my time in Budapest and after I returned to the US in 2019 and 2020.

In spring 2020 and fall 2020 I continued an active schedule of media appearances on local television stations in Hampton Roads, sometimes with five or six interviews per week during the Fall 2020 election season. I was interviewed on the local public radio station WHRO by Cathy Lewis as part of the HearSay program. I also initiated, along with Eric Clavelle of Norfolk State University a semi-regular political events discussion panel with WTKR in Norfolk.

Organized panel discussion of the 2020 primaries in March 2020.

Organized panel discussion about the Fall 2020 election in late October 2020.

Election Analysis, Norfolk League of Women Voters, November 2021.

Organized a panel discussion of the 2021 Virginia gubernatorial election on campus in Fall 2021.

Panel discussion ODU faculty members meeting with Norfolk Sister Cities delegation from Papua New Guinea. 2022.

Panel discussion of the 2022 Midterm Election in Fall 2022.

Panelist. Constitution Day 2022 Forum *Shaping America: How The Constitution Makes America What It Is*

Ryan Club, Norfolk. The Midterms and US Democracy. November 2022.

Appendix B: Documents Examined

In addition to the public datasets, books, and articles that are referenced in the text above, I examined a number of documents and datasets that were provided to me. I list those documents below.

07-24-2023 Petty, Janine_Full_Size_ex.pdf; 07-27-2023 Lerma, Jose_Full_Size_ex.pdf; 08-03-2023 Pima County Recorder by Hilary Hiser_Full_Size_ex.pdf; 08-04-2023 Lewis, Dana_Full_Size_ex.PDF; 08-10-2023 30(b)(6) of Santa Cruz County Recorder by Ana Moreno_Full_Size_ex.PDF; 08-11-2023 30(b)(6) of ADOT by Eric Russell Jorgensen_Full_Size_ex.pdf; 08-14-2023 Cochise County Recorder by David W. Stevens_Full_Size_ex.pdf; 08-16-2023 30(b)(6) of Gila County Recorder by Charlotte Asrarynezami_Full_Size_ex.pdf; 08-16-2023 30(b)(6) of Yavapai County Recorder by Matt Jackson Webber_Full_Size_ex.pdf; 08-23-2023 30(b)(6) of Coconino County Recorder by Patty Hansen_Full_Size_ex.pdf; 08-28-2023 30(b)(6) of Yuma County Recorder_Full_Size_ex.pdf; 08-29-2023 30(b)(6) of Arizona Attorney General by Knuth, Lawson and Thomas_Full_Size_ex.pdf; 08-31-2023 Apache County Recorder by Annalee Shreeve_Full_Size_ex.PDF
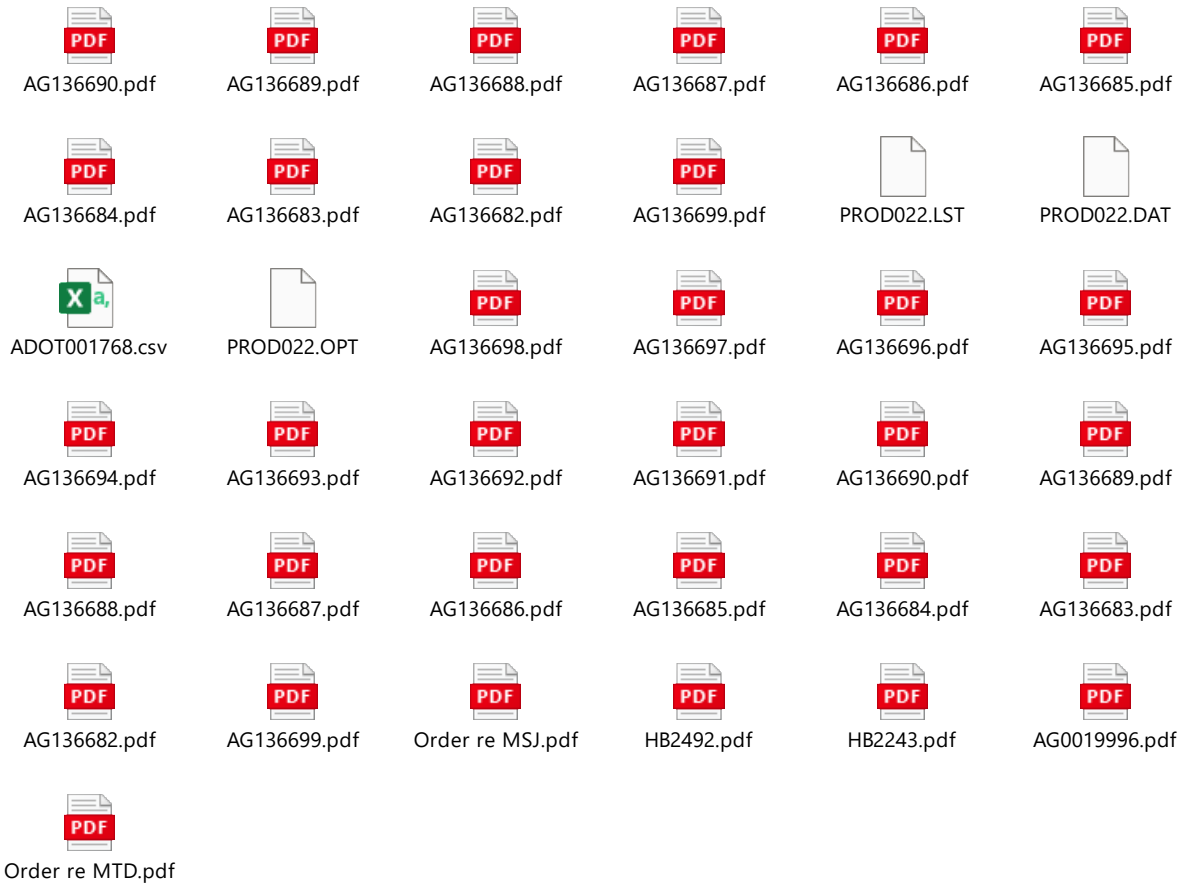

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