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THESIS

**SAFEGUARDING DEMOCRACY:
INCREASING ELECTION INTEGRITY THROUGH
ENHANCED VOTER VERIFICATION**

by

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March 2018

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THROUGH ENHANCED VOTER VERIFICATION**

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ABSTRACT

This thesis examines whether implementing a national voter registration list and a biometric identity verification program can prevent or mitigate voter fraud in an effort to protect the right to vote for U.S. citizens and increase election integrity. It analyzes the potential for, and scope of, fraudulent voting in the United States, purely from voter identity and eligibility verification vulnerabilities. The thesis exposes what policy and technical vulnerabilities exist within the various voter verification practices of the individual states that may permit the opportunity for fraudulent voting. It brings into focus the challenges of a federalist system on elections for national leaders. It investigates the effects voter fraud has on national elections, and ultimately, on democracy. This thesis studies whether the use of a national voter registration list and biometrics as secure and robust identity management solutions would address current and foreseeable voter eligibility related vulnerabilities. Lastly, it analyzes whether the solutions are adoptable, will minimize voter suppression while enhancing voter participation, and ultimately, increase integrity and confidence in national elections.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACS	American Community Survey
AFIS	automated fingerprint identification system
AP-NORC	Associated Press–National Opinion Research Center
BJS	Bureau of Justice Statistics
Caltech	California Institute of Technology
CalTech/MIT	California Institute of Technology/Massachusetts Institute of Technology
CVAP	citizen voting-age population
DA	District Attorney
DHS	Department of Homeland Security
DOJ	Department of Justice
DMV	Department of Motor Vehicles
DRE	direct recording electronic [voting machine]
EAC	Election Assistance Commission
ERIC	Electronic Registration Information Center
EIP	Electoral Integrity Project
EVVE FOD	EVVE Program Fact of Death
FIN	fingerprint identification number
GAO	U.S. Government Accountability Office
HAVA	Help America Vote Act
HRS	Hawaii Revised Statute
ID	identification
IDEA	International Institute for Democracy and Electoral Assistance
IFES	International Foundation for Election Systems
LPR	lawful permanent residents
MOVE	military and overseas voting empowerment
MRT	machine readable text
NCSL	National Conference on State Legislatures
NIST	National Institute of Standards and Technology
NMVR	national mail voter registration

NORC	National Opinion Research Center
NVRA	National Voter Registration Act
PACEI	Presidential Advisory Commission on Election Integrity
PEI	Perceptions of Electoral Integrity (Index)
SAVE	systematic alien verification for entitlements
SEB	State Board of Elections
USCIS	U.S. Citizenship and Immigration Services
VRA	Voting Rights Act

EXECUTIVE SUMMARY

Americans have grown worried about systemic flaws in the U.S. election system.¹ These concerns stem primarily from numerous cyber attacks against the 2016 elections. Department of Justice Special Counsel Robert Mueller asserts the attacks were perpetrated by bad actors to gain information and conspire to defraud, thwart, disrupt, meddle, sow doubt and discord, and ultimately, interfere in the U.S. political and election processes.²

Cyber attacks are not the only threat to elections.³ Voter fraud has been another prevalent topic in state and federal discussions and in mainstream media. The hacks and cyber attacks, along with contentious commentary on voter fraud by federal, state, and media outlets leave Americans feeling unsure about election integrity.

The Electoral Integrity Project (EIP) ranks confidence in elections throughout the globe. According to EIP, the U.S. 2012 presidential and 2014 congressional elections were “ranked the worst of any established democracy, especially on campaign finance and electoral registration.”⁴ In 2016, the United States ranked much lower than many Western democracies including the United Kingdom, Australia, Canada, and Denmark.⁵ More recently, the United States dropped to 61 points, which placed it on equal footing with four third-world countries, none of which are liberal democracies.⁶ After the 2016 elections, the Associated Press–National Opinion Research Center (AP-NORC) for

¹ Pippa Norris et al., *The Year in Elections, Mid-2016 Update* (Sydney, Australia, University of Sydney: The Electoral Integrity Project, 2016), 4, 11, <https://static1.squarespace.com/static/58533f31be6afbe99c85dc9b/t/590ed0b7440243109d1f2b01/1494143171236/THE+YEAR+IN+ELECTIONS+UPDATE+2016+15+Sept+2016.pdf>.

² David A. Graham, “What Mueller’s Indictment Reveals,” *Atlantic*, February 16, 2018, <https://www.theatlantic.com/politics/archive/2018/02/mueller-roadmap/553604/>.

³ Commission on Federal Election Reform, *Building Confidence in U.S. Elections* (Washington, DC: Center for Democracy and Election Administration, American University, 2005), 18, https://web.archive.org/web/20070609115256/http://www.american.edu/ia/cfer/report/full_report.pdf.

⁴ Norris et al., *The Year in Elections Mid-2016 Update*, 11–12; Pippa Norris, *Why American Elections are Flawed (And How to Fix Them)*, Faculty Research Working Paper Series, RWP 16-038 2016 (Cambridge, MA: Harvard University, Harvard Kennedy School (HKS), 2016), 2.

⁵ Norris et al., 5.

⁶ Norris et al., 22.

Public Affairs Research found that only 40 percent of Americans had high confidence in election integrity.⁷ Due to these low ratings, legislatures and election officials have been looking for ways to bolster trust and participation in the system, but even suggested remedies are contentious.⁸

A greatly debated topic is voter identification laws. Thirty-two states currently require or request voter identification on Election Day.⁹ Those who oppose identification laws say they disenfranchise minorities and alienate the poor.¹⁰ Those in favor of identification laws believe identity verification is needed to protect against fraudulent voting.¹¹ Eric A. Fischer, R. Sam Garrett, and L. Paige Whitaker with the Congressional Research Service believe that most election stakeholders—citizens, as well as election and government officials—would probably agree that “all eligible voters should have an equal opportunity to cast a ballot” while all “steps are in place to protect the election process from fraud, abuse, and error at any stage.”¹² Yet, the balance has been difficult to achieve.

This thesis sought to answer the following questions: To what extent does the potential for voter eligibility fraud exist? Are ineligible individuals voting? If so, what implications does fraud have for the preservation of democracy? It also explored whether the use of a national voter registration database with a biometric program could better balance identity and eligibility verification and ensure that all eligible voters could vote and that those who are ineligible do not. It examined evidence of voter eligibility fraud, how election confidence is measured and why confidence is important, and how voter

⁷ Associated Press-NORC, Center for Public Affairs Research, *Views on the American Election Process and Perceptions of Voter Fraud* (Chicago: University of Chicago, 2016), 1, http://www.apnorc.org/PDFs/Fraud/Elections%20and%20Fraud%20Topline_FINAL.pdf.

⁸ “Voter Identification Requirements|Voter ID Laws,” National Conference of State Legislatures, January 5, 2018, www.ncsl.org/research/elections-and-campaigns/voter-id.aspx.

⁹ National Conference of State Legislatures.

¹⁰ Frank Barry and Michael Newman, “Could Fingerprinting Finish the Debate Over Voter ID Laws?” *Government Technology*, January 30, 2015, <http://www.govtech.com/opinion/Could-Fingerprinting-Finish-the-Debate-Over-Voter-ID-Laws.html>.

¹¹ Barry and Newman.

¹² Eric A. Fischer, R. Sam Garrett, and L. Paige Whitaker, *State Voter Identification Requirements: Analysis, Legal Issues, and Policy Considerations*, CRS Report No. R42806 (Washington, DC: Congressional Research Service, 2016), <https://fas.org/sgp/crs/misc/R42806.pdf>.

fraud plays into the health of a democratic system. The thesis also studied the role of federalism in elections, federal government involvement through laws and commissions, and the right of U.S. citizens to vote.

The research deconstructed state voter verification practices and determined strengths and vulnerabilities within the processes. Millions of decentralized components make up the extremely complex U.S. election system. Some states have standardized processes within their jurisdictions, while others have given local election jurisdictions considerable independence and discretion.

To understand the various state identity and eligibility verification processes better, 51 surveys were sent to each state and the District of Columbia's senior election officials.¹³ The survey consisted of seven election process questions with multiple-choice answers, as well as areas for additional comments. Out of 51 requests, 24 states responded. Of those, 15 states require no proof of identification at the time of registration. Six states accept driver's licenses as proof of eligibility. Regarding proof of citizenship, 18 states responded that they rely on affirmation only for citizenship and trust that the voter is truthful. Twenty-one states update their voter registration list continuously. Thirteen states offer mail-in registration or mail-in voting and check IDs prior to counting the vote. Eight states require voters to submit a copy of their IDs with their registration forms. Four states require voters to submit a copy of their IDs with their ballots. In New Jersey and West Virginia, no voter identification is required.

When asked about voter fraud prosecutions, according to their responses, five states handle prosecutions at the county level only: Hawaii, Illinois, Washington, Wisconsin, and Wyoming. Delaware handles prosecutions only at the state level, and West Virginia handles them at the state or federal level. Seven states prosecute at the county and state levels, and six states will consider prosecution at any of the levels: county, state, or federal. Importantly, it appears no state or federal requirement exists for state governments to reveal to the public any findings of ineligible voters on their voter

¹³ Note: names and addresses were gained from the National Association of State Election Directors. "National Association of State Election Directors Roster," National Association of State Election Directors, October 4, 2017, <http://www.nased.org/>.

registration lists or ineligible voters who actually voted. This requirement applies for single instances or in reoccurring reports, as well as whether the incident was handled through prosecution or through civil remedy.

The thesis goes on to deconstruct verification practices to negate or confirm the opportunity for ineligible individuals to be on the voter registration list and subsequent opportunity for fraudulent voting. It appears that states do not systematically verify citizenship from state or federal databases, and may not have the tools necessary to verify citizenship. Further, neither law nor procedure requires voters to show proof of U.S. citizenship to register or to vote in national elections. Substantial gaps occur between what the federal and state laws require (a voter in a general election must be a U.S. citizen) and verification that the law is being met.

Registration problems and inaccurate lists can cause lost votes.¹⁴ According to a survey held by the California Institute of Technology/Massachusetts Institute of Technology (CalTech/MIT) Voting Technology Project, the 2008 general election lost 2.2 million votes due to registration problems.¹⁵ In February 2012, the PEW Charitable Trusts published research that found “one in eight state voter registration records is inaccurate, more than 1.8 million deceased voters are still on the rolls and approximately 2.75 million voters are registered in more than one state.¹⁶ Voter registration issues are costly and potentially affect the outcome of an election.

Finally, this thesis introduces two innovative solutions, including the use of a national voter registration database developed in a fashion similar to Canada, and the concept of embedding biometrics for reliable and efficient identity and eligibility verification purposes. These two solutions are working well in other nations. Canada

¹⁴ R. Michael Alvarez and Thad E. Hall, *Resolving Voter Registration Problems: Making Registration Easier, Less Costly and More Accurate* (Pasadena, CA/Cambridge, MA: Caltech/MIT Voting Technology Project, 2009), 4, https://dspace.mit.edu/bitstream/handle/1721.1/96618/wp_87.pdf;sequence=1.

¹⁵ Alvarez and Hall, 4.

¹⁶ Pew Center on the States, *Inaccurate, Costly, and Inefficient: Evidence That America's Voter Registration System Needs an Upgrade* (Washington, DC: Pew Center on the States, 2012), 1, http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2012/pewupgradingvoterregistrationpdf.pdf. NOTE: the Pew Center on the States commissioned RTI International, a nonprofit, nonpartisan research institute, to assess the quality and accuracy of state voter registration lists in the United States using a database maintained by Catalist, LLC, a leading aggregator and processor of voter information.

credibly estimates it has saved more than \$30 million Canadian dollars in each four-year election cycle since 2000, which equates to \$22.5 million U.S. dollars based upon current exchange rates.¹⁷ Canada recouped its investment during the first election cycle that it used it.¹⁸ If these estimates are extrapolated with no variables other than the size of the population, the combined states could potentially save an estimated \$200 million U.S. dollars during each general election cycle if they adopt a national voter registration system. The United States has the technological expertise to create tools to enhance integrity, protect privacy, promote transparency, increase confidence, and strengthen one of the most critical aspects of democracy: free and fair elections.

This research closes with several key findings, including the discovery that voter fraud can exist due to established systemic vulnerabilities, ineligible voters may be voting, and, it is impossible to determine the pervasiveness of voter fraud based upon current tools and available data. To remedy the vulnerabilities, the thesis concludes by providing 10 policy recommendations for moving forward, including recommending states adopt a nationwide voter registration list as a viable aid for increasing integrity, leveraging from shared systems, and saving monies. These changes should be supported through federal legislation and managed by an appropriate agency. Additionally, it recommends election officials study the use of biometrics as a viable solution for voter verification to mitigate the need for voter identification at the polls, conceivably to pave the way forward for online voting.

¹⁷ Jennifer S. Rosenberg with Margaret Chen, *Expanding Democracy: Voter Registration around the World* (New York: Brennan Center for Justice, 2009), 8, <http://www.brennancenter.org/sites/default/files/legacy/publications/Expanding.Democracy.pdf>.

¹⁸ Rosenberg with Chen, 8.

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I. PROBLEM STATEMENT

In the months leading up to the 2016 U.S. general elections, experts, politicians, and Americans in general voiced concerns about systemic vulnerabilities.¹ These concerns primarily stemmed from the aftermath of numerous hacks and cyber attacks against election system components. The attacks are still under investigation; however, a substantial indictment was unsealed on February 16, 2018.² In this indictment, Department of Justice Special Counsel Robert Mueller asserts the 16 defendants (including three organizations and 16 individuals) coordinated attacks to gain information and conspire to defraud, thwart, disrupt, meddle, sow doubt and discord, and ultimately interfere in the U.S. political and election processes.³

Cyber attacks are not the only threat to alter the outcome of an election.⁴ Voter fraud has been another prevalent topic and perceived threat in state and federal discussions, and in mainstream media. Voter fraud anxieties were heightened prior to the 2016 elections, however, the roots of voter fraud concerns are almost as old as the system itself.

Whether real or perceived vulnerabilities to elections exist, simple doubt in reliability and fairness may cause discord and diminish confidence in the voting system.⁵ Speculation and sensationalism add fuel to the fire, and eventually, the legitimacy of the

¹ Pippa Norris et al., *The Year in Elections, Mid-2016 Update* (Sydney, Australia: University of Sydney, The Electoral Integrity Project, 2016), 4, 11, <https://static1.squarespace.com/static/58533f31be6afbe99c85dc9b/t/590ed0b7440243109d1f2b01/1494143171236/THE+YEAR+IN+ELECTIONS+UPDATE+2016+15+Sept+2016.pdf>.

² James B. Comey, *Statement of James B. Comey, Director Federal Bureau of Investigation, before the Committee on the Judiciary United States House of Representatives for a Hearing concerning Oversight of the Federal Bureau of Investigation, September 28, 2016* (Washington, DC: Committee on the Judiciary, 2016), 5, <https://judiciary.house.gov/wp-content/uploads/2016/09/Director-Comey-Statement.pdf>.

³ David A. Graham, "What Mueller's Indictment Reveals," *Atlantic*, February 16, 2018, <https://www.theatlantic.com/politics/archive/2018/02/mueller-roadmap/553604/>.

⁴ Commission on Federal Election Reform, *Building Confidence in U.S. Elections* (Washington, DC: Center for Democracy and Election Administration, American University, 2005), 18, https://web.archive.org/web/20070609115256/http://www.american.edu/ia/cfer/report/full_report.pdf.

⁵ Chuck Todd, Mark Murray, and Carrie Dann, "The FBI, the 2016 Election and the Confidence Deficit," NBC News, November 1, 2016, <http://www.nbcnews.com/politics/first-read/fbi-2016-election-confidence-deficit-n676171>.

outcome may be challenged, especially if the election results are close.⁶ A prime example is the litigious 2000 Gore vs. Bush presidential election that was determined by a mere 537 votes in Florida. The financial cost of that litigation was astronomical; the social cost might have been more. Never-ending recounts, vile allegations, constitutional challenges, and numerous lawsuits were the daily agenda until the Supreme Court made the decision to stop the recounts a month after the November 11 election.⁷ As a result, Bush became the 43rd President of the United States.⁸ The social and political response to the 2000 election results are still disturbing; from the recount debacle, the federalism aspect, and the judiciary intrusion.

As free and fair elections are a vital component of democracy, corruption of the process can spoil the trust and cause democratic erosion.⁹ Federal and state criminal statutes are in place to counter any manmade threats, including voter fraud. Every state has laws regarding voter eligibility and penalties against fraudulent voting. Unfortunately, prosecution or civil action happens after a crime has occurred and a vote has been counted, as the vote serves as evidence of the crime. If votes are fraudulently made, they can dilute the national democratic process.¹⁰

Americans are losing faith in the election system. According to the internationally recognized Electoral Integrity Project (EIP), “The 2012 U.S. Presidential and 2014 Congressional elections were ranked the worst of any established democracy, especially on campaign finance and electoral registration.”¹¹ In 2016, survey statistics show that in

⁶ Commission on Federal Election Reform, *Building Confidence in U.S. Elections*, 18.

⁷ Charles L. Zeldon, *Bush v. Gore: Exposing the Hidden Crisis in American Democracy* (Lawrence, KS: University Press of Kansas, 2010), preface.

⁸ Zeldon, preface.

⁹ David C. Kimball, Chris T. Owens, and Katherine McAndrew Keeney, “Unrecorded Votes and Political Representation,” in *Counting the Votes: Lessons from the 2000 Presidential Election in Florida*, ed. Robert P. Watson (Gainesville, FL: University Press of Florida, 2004), 1; Philippe C. Schmitter and Terry Lynn Karl, “What Democracy is...and is Not,” *Journal of Democracy* 2, no. 3 (Summer 1991):78; Andreas Schedler, “What is Democratic Consolidation?” *Journal of Democracy* 9, no. 2 (April 1998): 97, Project Muse.

¹⁰ Kimball, Owens, and Keeney, 1; Schmitter and Karl, “78; Schedler, “97.

¹¹ Norris et al., *The Year in Elections Mid-2016 Update*, 11–12; Pippa Norris, *Why American Elections are Flawed (And How to Fix Them)*, Faculty Research Working Paper Series, RWP 16-038 2016 (Cambridge, MA: Harvard University, Harvard Kennedy School (HKS), 2016), 2.

comparison with all 153 nations in the survey, the United States, again, ranked poorly. The United States was graded much lower than the majority of Western democracies—just 62 out of the 100 points on the Perceptions of Electoral Integrity (PEI) Index as compared with the United Kingdom at 65, Australia at 70, Canada at 75, and Denmark at 86.¹²

More recently, in the EIP 2017 midyear report, the United States dropped another perception point to 61 points. This number placed the nation on equal footing with Oman, Bhutan, Timor-Leste, and Panama, none of which are liberal democracies.¹³ The United States received its lowest scoring in the matters of electoral laws, district boundaries, and voter registration. The United Kingdom ranked at 66, while Australia, Canada, and Denmark all remained the same.¹⁴

Other survey companies found similar responses. Prior to the 2016 elections, Gallup found that only 60 percent of Americans were confident their votes would count.¹⁵ After the 2016 elections, the Associated Press–National Opinion Research Center (AP-NORC) for Public Affairs Research found that only about 40 percent of Americans had high confidence in election integrity.¹⁶ Voter confidence gauged by surveys is likely not the best measuring stick on how elections are performing.¹⁷ Voters may be influenced by convenience at the polling sites or whether their candidate wins as to whether they are confident with the current state of elections.¹⁸ Voter confidence, however, likely affects voter turnout and officials should be paying attention.

¹² Norris et al., *The Year in Elections Mid-2016 Update*, 5.

¹³ Pippa Norris et al., *The Year in Elections, 2017 Mid-Year Update* (Sydney, Australia: University of Sydney, The Electoral Integrity Project, 2016), 22.

¹⁴ Norris et al., 21.

¹⁵ Justin McCarthy, “Gallup Polls: About Six in 10 Confident in Accuracy of U.S. Vote Count,” Gallup News, September 9, 2016, http://www.gallup.com/poll/195371/six-confident-accuracy-vote-count.aspx?g_source=Politics&g_medium=newsfeed&g_campaign=tiles.

¹⁶ Associated Press-NORC, Center for Public Affairs Research, *Views on the American Election Process and Perceptions of Voter Fraud* (Chicago: University of Chicago, 2016), 1, http://www.apnorc.org/PDFs/Fraud/Elections%20and%20Fraud%20Topline_FINAL.pdf.

¹⁷ Charles S. Stewart III, “Thoughts on Voter Confidence and Election Reform,” *Election Updates* (blog), September 12, 2017, <https://electionupdates.caltech.edu/2017/09/12/thoughts-on-voter-confidence-and-election-reform/>.

¹⁸ Stewart.

Legislatures and election officials have been looking for effective ways to bolster trust and participation in the system, but even new methods can be contentious. According to the U.S. Constitution, election administration is the responsibility of the individual states.¹⁹ Since each state chooses its method for voter identification and vetting, processes differ across the United States.²⁰ Thirty-two states currently require or request voter identification on Election Day.²¹ Two more states, West Virginia and Iowa, enacted voter identification laws that go into effect in 2018.²² Identification requirements at the polling sites are quarrelsome.

In 2015, the University of California, San Diego found “strict photo identification laws have a differentially negative impact on the turnout of Hispanics, Blacks, and mixed-race Americans in primaries and general elections.”²³ Opponents to identification laws believe identification cards are costly, require taking time off work, and are a burden for travel to a county or state government office, which causes inconvenience.²⁴ Those who oppose identification laws say they disenfranchise minorities and alienate the poor.²⁵ Those in favor of identification laws believe identity verification is needed to protect against fraudulent voting.²⁶ Striking a balance, however, has been difficult to achieve.

Most election stakeholders—citizens, as well as election and government officials—would probably come to an agreement that:

- All eligible voters should have an equal opportunity to cast a ballot.

¹⁹ U.S. Const. amend. X. Sec. 2.

²⁰ Note: Throughout this paper, the word “states” includes “states and the District of Columbia” in relation to election jurisdictions.

²¹ “Voter Identification Requirements|Voter ID Laws,” National Conference of State Legislatures, January 5, 2018, www.ncsl.org/research/elections-and-campaigns/voter-id.aspx.

²² National Conference of State Legislatures.

²³ Vann R. Newkirk, “How Voter ID Laws Discriminate,” *The Atlantic*, February 18, 2017, <https://www.theatlantic.com/politics/archive/2017/02/how-voter-id-laws-discriminate-study/517218/>.

²⁴ Newkirk.

²⁵ Frank Barry and Michael Newman, “Could Fingerprinting Finish the Debate Over Voter ID Laws?” *Government Technology*, January 30, 2015, <http://www.govtech.com/opinion/Could-Fingerprinting-Finish-the-Debate-Over-Voter-ID-Laws.html>.

²⁶ Barry and Newman.

- All necessary steps should be taken to protect the election process from fraud, abuse, and error at any stage.²⁷

If the burden of proof for voter eligibility is purely on the voter, it can understandably be a hardship for those who are impoverished, affected by disasters, or otherwise unable to produce verifiable documents. If the burden of proof for voter verification is purely on the state, gaps in verification tools may lead to voter fraud. A reasonable solution must be found that balances the two needs.

This thesis delves into whether a national voter registration list and biometric technology, combined or independently used, could enhance the integrity of elections, prevent or mitigate voter fraud, and deter voter disenfranchisement. According to the U.S. Agency for International Development, national voter registration lists are common throughout western democracies. These same nations enjoy higher confidence in elections than the United States.²⁸ Further, biometrics is becoming a standard for identity verification throughout the globe and is commonly used in many U.S.-based companies and government entities for identity management.

Using biometrics may satisfy all parties by encouraging participation, adding convenience, protecting integrity, and ensuring accurate voter registration listings are maintained. By using biometric technologies, voters may not need an identification card to vote no matter where they live in the United States. Voters could simply press their fingers against a scanner to have their identity verified, for example.²⁹ Biometrics could pave the way for eventual online voting with fingerprint scan verification, even for military personnel stationed abroad. Many countries across the globe are successfully adopting biometric technology to improve the integrity of their elections. The

²⁷ Eric A. Fischer, R. Sam Garrett, and L. Paige Whitaker, *State Voter Identification Requirements: Analysis, Legal Issues, and Policy Considerations*, CRS Report No. R42806 (Washington, DC: Congressional Research Service, 2016), <https://fas.org/sgp/crs/misc/R42806.pdf>.

²⁸ U.S. Agency International Development, *Civil and Voter Registries: Lessons Learned from Global Experiences*, ed. Michael Yard (Washington, DC: International Foundations for Electoral Systems, 2011), 8, http://pdf.usaid.gov/pdf_docs/pnaea087.pdf.

²⁹ Justin Lee, “Introducing Biometrics in the U.S. Voting Process: Q&A with Dave Gerulski,” Biometric Update, October 16, 2016, <http://www.biometricupdate.com/201610/introducing-biometrics-in-the-u-s-voting-process-qa-with-dave-gerulski>.

International Institute for Democracy and Electoral Assistance (IDEA) reports 35 percent (or 45 countries) of over 130 surveyed electoral management bodies (generally nations) are utilizing biometrics to enhance part of their voter registration and verification process.³⁰

A. THE PROBLEM OF VOTER FRAUD

Americans elect their nation's leaders through an election system many consider weak.³¹ Daily, these leaders make critical decisions affecting the security and well-being of Americans.

Our leaders, particularly younger ones, should see this broad discontent as one of America's greatest challenges and work hard to address it as we would more traditional foreign or domestic policy challenges. A central path to re-establishing trust is to re-imagine and build a modern electoral system in the U.S. that can begin to restore a more persuasive sense of consent by the American people in their leaders. This issue is not a partisan one, but an American one, and it needs to be addressed with the kind of vigor and determination we've seen so many times in our proud history.³²

As elections have been designated a national interest, it is time to seek innovative ways to shore up election vulnerabilities and regain public trust.

1. Research Questions

- To what extent does the potential for voter eligibility fraud exist? Are ineligible individuals voting? If yes, what implications does fraud have for the preservation of democracy?

³⁰ Peter Wolf et al., *Introducing Biometric Technology in Elections* (Stockholm: International Institute for Democracy for Electoral Assistance, 2017), 5, <https://www.idea.int/sites/default/files/publications/introducing-biometric-technology-in-elections.pdf>.

³¹ Simon Rosenberg, "Keep the Faith: Three Steps to Modernize and Reform American Elections Would Help Rebuild Faith in Our Democracy," *U.S. News & World Report*, April 25, 2016, <https://www.usnews.com/news/articles/2016-04-25/voting-reform-is-one-of-americas-biggest-challenges>; Norris, *Why American Elections are Flawed (And How to Fix Them)*.

³² Rosenberg.

- Would the use of a national voter registration database with a biometric program better balance identity and eligibility verification to ensure that all eligible voters can vote and that those who are ineligible do not?

2. Literature Review

The objective of this literature review is to understand the scholarly arguments and theories regarding real or perceived voter fraud impacts to democracy, election integrity, and the legal framework surrounding election administration.

a. The Importance of Free and Fair Elections in a Democracy

Eminent scholars Philippe Schmitter and Terry Lynn Karl describe the elements of a democratic society and how internal and external influences affect the level of democracy that enhance or degrade its stability.³³ They share, “The most popular definition of democracy equates it with regular elections, fairly conducted and honestly counted...However central to democracy, elections occur intermittently and only allow citizens to choose between the highly aggregated alternatives offered by political parties.”³⁴

Schmitter and Karl go on to state, free and fair elections “by the consent of the people” is one of two principles that make a nation democratic.³⁵ The other principle is “by the contingent consent of politicians acting under conditions of bounded uncertainty.”³⁶ This last concept is more intricate; the losing candidate honors a peaceable transition of the winner of an election to the office.³⁷ The losing candidate and citizenry accept the outcome of the election and consent to the winner the authority to make binding decisions.³⁸ The winning party respects the right of the losing candidate to

³³ Schmitter and Karl, “What Democracy is...and is Not,” 75–88.

³⁴ Schmitter and Karl, 75–88; Schedler, “What is Democratic Consolidation?” 2.

³⁵ Schmitter and Karl, 82.

³⁶ Schmitter and Karl, 82.

³⁷ Schmitter and Karl; Schedler, “What is Democratic Consolidation?”

³⁸ Schmitter and Karl; Schedler.

become a candidate again in a future election. These democratic principles cannot occur without election integrity.

Andreas Schedler echoes Schmitter and Karl's notion that positive and negative influences affect the level of democracy in a nation, such as divergence of democratic values and erosion of the institutional pillars of democracy.³⁹

For example, state violence as well as state weakness may subvert the rule of law: the rise of hegemonic parties may suffocate electoral competition. The decay of electoral institutions may affect the honesty of vote counting; incumbents may use their privileged access to state resources and to the mass media in ways that violate minimum standards of electoral fairness and equal opportunity; or the introduction of exclusionary citizenship laws may violate democratic norms of inclusiveness.⁴⁰

A vulnerable election system may not just affect the outcome of an election; it may additionally affect the strength of democracy in a nation.⁴¹ Distinguished political scientist Robert Dahl defined "democratic" as aligned with the principle of *one person, one vote*, which is also known as *majority rule*.⁴² Democracy cannot survive without free and impartial elections that legitimately elect the nation's leaders.⁴³

Larry Diamond, co-founder of the *Journal of Democracy* and with Stanford's Center on Democracy, Development, and the Rule of Law, believes the world has been in a protracted democratic recession since 2006.⁴⁴ After 30 years of increasing growth in political freedom and civil rights, the trend peaked in 2005. Diamond explains the halt in democratic expansion may be the start of a decline, specifically in the "world's established, rich democracies" in sustainability and confidence.⁴⁵ In a 2015 article,

³⁹ Schedler, "What is Democratic Consolidation?"

⁴⁰ Schedler.

⁴¹ Commission on Federal Election Reform, *Building Confidence in U.S. Elections*, 18.

⁴² Robert Dahl, *How Democratic Is the American Constitution?* (New Haven: Yale University Press, 2003).

⁴³ Peter B. Counter, "Biometrics Now Mandatory for Voting in the Philippines," Find Biometrics, June 2, 2014, <http://findbiometrics.com/biometrics-now-mandatory-for-voting-in-the-philippines>; Schedler, "What is Democratic Consolidation?" 97.

⁴⁴ Larry Diamond, "Facing up to Democratic Recession," *Journal of Democracy* 26, no. 3 (January 2015): 141–155, https://www.journalofdemocracy.org/sites/default/files/Diamond-26-1_0.pdf.

⁴⁵ Diamond, 141–155.

Diamond suggests that these mainly western democracies have been in decline perhaps due to the growing evidence of deteriorating public confidence in political parties, which are a core institution of democracies.⁴⁶ This decline also translates into confidence in political competition for and the outcome of elections.

Jeff Fisher, senior advisor for Governance and Elections at the International Foundation for Election Systems (IFES), authored a comprehensive report on electoral conflict and the violence resulting from the breakdown of electoral processes worldwide.⁴⁷ With similar international experience, Pippa Norris provides a detailed overview on failings within the U.S. elections and how to resolve them.⁴⁸ Ms. Norris steers EIP along with an international advisory board. EIP is co-located at the University of Sydney and Harvard's Kennedy School of Government.

Fisher and Norris provide findings on how elections are administered across the world. They assess what went right and what went wrong, and show evidence of what may happen when election vulnerabilities exist.⁴⁹ Fisher determines:

The international community has played a significant role in promoting standards and best practices in election administration. These experiences have established benchmarks for performance that can guide policy-makers in further programming initiatives.⁵⁰

Election officials and state legislators can learn lessons from entities that study international elections. They can also consider adopting best practices that work for nations that rank high in election integrity and confidence.

⁴⁶ Diamond, 141–155.

⁴⁷ Jeff Fisher, *Electoral Conflict and Violence: A Strategy for Study and Prevention* (Arlington, VA: International Foundation for Electoral Systems, 2002), 2–3, <http://www.ifes.org/sites/default/files/electoral-conflict-paper.pdf>.

⁴⁸ Norris, *Why American Elections are Flawed (And How to Fix Them)*, 2, 4; Pippa Norris and Max Gromping, *Populist Threats to Electoral Integrity: The Year in Elections, 2016–2017* (Sydney, Australia: The Electoral Integrity Project: University of Sydney, 2017), 33.

⁴⁹ Fisher, *Electoral Conflict and Violence*; Norris, *Why American Elections are Flawed (And How to Fix Them)*.

⁵⁰ Fisher.

b. Voter Eligibility Fraud—A Deliberative Discourse

To learn the scope of the voter eligibility fraud debate, this thesis gathered and reviewed publications, articles, surveys, and studies from a number of sources. Mainstream media articles on voter fraud were critically reviewed for nuggets of fact by reviewing sources. Better foundations for gauging the likelihood of the existence of voter fraud were from leading scholars, eminent election experts, and government investigators.

Amongst all these sources, two distinct camps emerged.

(1) Voter Fraud Is Rare or Does Not Exist

Pippa Norris with EIP produced a blog article analyzing the possibility of voter fraud in February 2017 entitled “Could Massive Voter Fraud Have Occurred in the 2016 Presidential Election?”⁵¹ She responded to the claims of a rigged election and millions of fraudulent voters by referring to several studies.

Study after study investigating these issues has found no systematic evidence supporting the claim of large-scale voter fraud, defined as cases involving voters casting multiple ballots in an election, casting a ballot when disqualified to do so, or voter impersonation.⁵²

Ms. Norris refers to the *Washington Post* studies of specific voter impersonation fraud and concepts.⁵³ These studies do not appear to link to scientific examination of voter eligibility verification.⁵⁴ She also ties her findings back to Lorraine Minnite’s study, “The Politics of Voter Fraud,” in which Minnite finds claims “alleging voter fraud

⁵¹ Pippa Norris, “Could Massive Voter Fraud Have Occurred in the 2016 U.S. Presidential Election? The Mysterious Case of the Dog Which Did Not Bark,” *Electoral Integrity Project* (blog), February 2, 2017, <https://www.electoralintegrityproject.com/eip-blogs/2017/2/2/could-massive-voter-fraud-have-taken-place-in-the-2016-us-presidential-election>.

⁵² Norris.

⁵³ Norris.

⁵⁴ Norris.

is fraud.”⁵⁵ Minnite herself argues evidence of voter fraud lies with law enforcement efforts to detect and prosecute it.⁵⁶

The Brennan Center for Justice published an article finding that allegations of voter fraud are exaggerated.⁵⁷ This organization, within the New York University School of Law, points out the error of stating fraud claims based upon matching lists are flawed.⁵⁸ The Brennan Center for Justice produced another article entitled, “Debunking the Voter Fraud Myth.” This report focused on impersonation fraud, court records, and government investigations. A consistent theme is voter fraud can only be evidenced through law enforcement or court actions.

(2) Voter Fraud Exists

A 2007 report written by Craig Donsanto and Nancy Simmons with the U.S. Department of Justice (DOJ) Public Integrity Section details election crime prosecutions, which include crimes of voter fraud. The authors share three types of election crime most often prosecuted at the federal level: illegally obtaining and marking of fake ballots, engaging in corruption in counting and certification of election results, and committing fraud during the registration of voters.⁵⁹ They present over 127 federal election fraud cases as examples of statutes and methods for prosecution. These cases demonstrate that although election fraud may not be rampant, these crimes are occurring.⁶⁰

Jess T. Richman, Gulshan A. Chattha, and David C. Earnest produced a 2014 article for the journal *Electoral Studies* that focused on the existence and implications of

⁵⁵ Norris.

⁵⁶ Lorraine C. Minnite, *The Politics of Voter Fraud* (Washington, DC: Project Vote, 2007), <http://www.nonprofitvote.org/documents/2011/03/project-vote-politics-of-voter-fraud.pdf>.

⁵⁷ Brennan Center for Justice, *Investigator’s Guide to “Voter Fraud”* (New York: Brennan Center for Justice, 2006), 1, <https://www.brennancenter.org/sites/default/files/analysis/Investigator%27s%20Guide%20to%20Voter%20Fraud.pdf>.

⁵⁸ Brennan Center for Justice, 1.

⁵⁹ Craig Donsanto and Nancy L. Simmons, *Federal Prosecutions of Election Offenses: Seventh Edition* (Washington, DC: Department of Justice, Public Integrity Section, 2007), 2–3.

⁶⁰ Donsanto and Simmons.

non-citizen voting.⁶¹ The group determined voter fraud is extremely difficult to isolate due to the numerous jurisdictions and policies. To study the potential, they used data from the 2008 and 2010 Cooperative Congressional Election Studies, which was an internet-based survey collected pre-election October and post-election in November.⁶² The authors' work delivers some of the first national estimations of non-citizen immigrants who claimed to have voted in U.S. elections. This finding provides strong indicators of the existence of fraudulent voting.

A 2005 DOJ document entitled, "Preliminary Findings of Joint Task Force Investigating Possible Election Fraud," was a valuable and unique find. This task force focused on elections conducted in Wisconsin.⁶³ This review substantiated over 100 individual cases of voter fraud and over 200 instances where felons voted.⁶⁴ The group claimed poor record-keeping practices hindered investigators who noted that even records were missing.⁶⁵ The task force's preliminary findings were included in a 2006 Election Assistance Commission (EAC) Election Crimes report.⁶⁶

c. Voter Identity and Eligibility Verification Practices

An important element for this particular research was trying to ascertain if voter eligibility fraud *could* [emphasis added] exist. To gain this understanding, a comprehensive list of voter identity and eligibility verification policies, practices, and vulnerability assessments were gathered and reviewed, to include the following.

The U.S. Government Accountability Office's (GAO) June 2016 report details state policies and laws, how voters cast their ballots (in person, online, by mail, or

⁶¹ Jess T. Richman, Gulshan A. Chattha, and David C. Earnest, "Do Non-Citizens Vote in U.S. Elections," *Electoral Studies* 36 (September 2014): 149–150, <https://www.journals.elsevier.com/electoral-studies/news/electoral-studies-and-the-2016-us-election>.

⁶² Richman, Chattha, and Earnest, 150.

⁶³ Department of Justice, "Preliminary Findings of Joint Task Force Investigating Possible Election Fraud," 1, May 10, 2005, <http://p2004.org/states/wifraud051005.html>.

⁶⁴ Department of Justice, 1.

⁶⁵ Department of Justice, 1.

⁶⁶ Election Assistance Commission, *Election Crimes Report, December, 2006* (Silver Spring, MD: Government Printing Office, 2006), <https://www.eac.gov/assets/1/1/2006%20Election%20Crimes%20Report.pdf>.

absentee), registration procedures (online, in person and/or by mail), and the establishment of polling places.⁶⁷ Although the states have the responsibility to administer the elections, actual implementation is often left to local officials.⁶⁸ This report allowed a glimpse into just how disparate jurisdictions can be. This GAO report provided a comprehensive study on what practices seem to be work and what challenges exist. The report details successes and difficulties states have with information sharing. This information sharing relates to both internal sharing of information between the various jurisdictions and state entities, as well as externally with other states and federal systems.

The GAO report also identified common voter identity management practices.⁶⁹ The report analyzed what practices are successful and where vulnerabilities may exist.⁷⁰ The GAO report also provides a glimpse into the effects of certain voter registration and election policies starting with the Help America Vote Act of 2002 and the resulting state legislative responses.⁷¹ The report also provides a cost benefit analysis on the use of various election tactics in an attempt to increase voter turnout, as well as the effects of select policies and practices. Several quantitative studies based on information that may be otherwise difficult to access within state voter registration databases are made available through this report.

A January 2014 memorandum from the EAC shows the challenges states have in verifying eligibility. Specifically, this piece contains an important and precedent decision regarding requests from Arizona, Georgia, and Kansas to “include additional proof-of-

⁶⁷ Rebecca Gambler, *Elections: Issues Related to Registering Voters and Administering Elections*, GAO-16-630 (Washington, DC: Government Accountability Office, 2016), 1–4, <http://www.gao.gov/assets/680/678131.pdf>.

⁶⁸ Gambler, 1–4.

⁶⁹ Gambler; Election Assistance Commission, *The 2012 Election Administration and Voting Survey*, (Washington, DC: Government Printing Office, 2013), 1, <https://www.eac.gov/research-and-data/2012-election-administration-voting-survey/>.

⁷⁰ “The Founders and Federalism,” USHistory.org, accessed on October 17, 2016, <http://www.ushistory.org/gov/3a.asp>.

⁷¹ Gambler, *Elections*, 1–4.

citizenship instructions on the National Mail Voter Registration Form” in January 2014.⁷² This memo details the EAC response to the request by the three states that requested updates to the federal form, specifically notifying applicant voters they would be required to submit proof of U.S. citizenship prior to being accepted in the state’s voter registration database.⁷³ The EAC denied the requests by the three states, finding their need is not supported by the public and each state did not sufficiently prove election fraud was occurring in their states to the degree needed to change a federal form.⁷⁴

d. Registrations and the Notion of a National Voter Registration List

The PEW Center on the States published a 2012 report that focuses on the accuracy of state registration listings.⁷⁵ The non-profit organization’s research concluded that approximately 24 million voter registration records are erroneous.⁷⁶ The report makes the argument the various state voter registration systems “must be brought into the 21st century to be more accurate, cost-effective, and efficient.”⁷⁷

R. Michael Alvarez and Thad E. Hall produced a joint California Institute of Technology (Caltech) and Massachusetts Institute of Technology report documenting voter registration methods.⁷⁸ These scholars claim the United States uses a passive method to register voters and the burden of registering is on the voter.⁷⁹ Other democratic

⁷² Alice P. Miller, “Memorandum of Decision Concerning State Requests to Include Additional Proof-of-Citizenship Instructions on the National Mail Voter Registration Form” (official memorandum, Washington, DC: U.S. Election Assistance Commission, 2014), <https://www.eac.gov/assets/1/28/20140117%20EAC%20Final%20Decision%20on%20Proof%20of%20Citizenship%20Requests%20-%20FINAL.pdf>.

⁷³ Miller, 1–5.

⁷⁴ Miller, 22–23.

⁷⁵ Pew Center on the States, *Inaccurate, Costly, and Inefficient: Evidence That America’s Voter Registration System Needs an Upgrade* (Washington, DC: Pew Center on the States, 2012), 1, http://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2012/pewupgradingvoterregistrationpdf.pdf.

⁷⁶ PEW Center on the States, 1.

⁷⁷ PEW Center on the States, 1.

⁷⁸ R. Michael Alvarez and Thad E. Hall, *Resolving Voter Registration Problems: Making Registration Easier, Less Costly and More Accurate* (Pasadena, CA and Cambridge, MA: Caltech/MIT Voting Technology Project, 2009), 3, https://dspace.mit.edu/bitstream/handle/1721.1/96618/wp_87.pdf;sequence=1.

⁷⁹ Alvarez and Hall, 3.

nations have compulsory or active methods, they assert, that increase the voter rolls and ease the liability from the voters.⁸⁰ The authors argue that the government bearing the burden of finding eligible citizens and ensuring they are on the registration list is an advantage for the election process.⁸¹

Mentioned earlier, *Expanding Democracy*, by Jennifer S. Rosenberg with Margaret Chen, was a valuable source that explains the national voter registration list that Canada, a federally governed nation, uses called the National Register.⁸² The authors focus on the fundamental elements of democracy and justice as a basis for the choice of a national system.⁸³ This publication is the second in a sequence of white papers produced by the Brennan Center's Voting Rights and Election Projects that focus on voter registration modernization.⁸⁴ Rosenberg and Chen lay out the methods democratic countries use to build and maintain their voter rolls and detail how, in comparison with 21 other nations, the United States has a very low registration rate that falls at 68 percent of eligible voters.⁸⁵ The authors detail how Canada modernized its voter roll system, once separated into multiple territory and provincial databases, into a national system. By doing so, Rosenberg and Chen contend Canada increased the integrity in the voter rolls, bolstered election confidence, and saved the nation an approximate \$30 million Canadian dollars (or \$22.5 million U.S. dollars) per four-year election cycle.⁸⁶ Extrapolated to the population size of the United States, the savings would be enormous. A notable concept from their paper is that most democratic governments play an active role of adding voters to the list, which carry the burden of registration, instead of placing the burden on the

⁸⁰ Alvarez and Hall, 3.

⁸¹ Alvarez and Hall, 3.

⁸² Jennifer S. Rosenberg with Margaret Chen, *Expanding Democracy: Voter Registration around the World* (New York: Brennan Center for Justice, 2009), 10, <http://www.brennancenter.org/sites/default/files/legacy/publications/Expanding.Democracy.pdf>.

⁸³ Rosenberg with Chen, 1.

⁸⁴ Rosenberg with Chen, 2.

⁸⁵ Rosenberg with Chen, 6.

⁸⁶ Rosenberg with Chen, 12.

voters. Some of the main ways the governments eases the burden is through civil registries, data sharing with other agencies, and canvassing.⁸⁷

e. Biometrics as a Possible Solution

The only reliable way to tell the uniqueness of a person from one individual to another is through biometrics. In comparison, biographic information frequently changes throughout a person’s lifetime. Names, addresses, dates of birth, and other identifiers can be intentionally or unintentionally altered. Biometrics is trustworthy and reliable. Out of the various types of biometrics used for identity verification including iris and retina scans, facial recognition, DNA tests, and voice recognition, fingerprints are the most commonly used.⁸⁸ Fingerprints develop in the womb and are unique. Not even identical twins share the same fingerprints. Beyond the growth of the thumb and digit from childhood into adulthood, the print remains uniquely the same.⁸⁹ As a result, biometrics, and fingerprints in general, have become increasingly critical in identify verification, which leads to safeguarding the homeland and protecting access to sensitive programs. Additionally, biometrics is becoming more relied upon in the civilian sectors.⁹⁰

Over 45 nations have added biometrics to their voter registration requirements as a method for identifying voters, including Europe, the Near East, Africa and Latin America.⁹¹ Some countries have been using biometrics in elections for over a decade.⁹²

Justin Lee, of the Biometric Research Group, offers a 2016 journal article entitled “Introducing Biometrics in the U.S. Voting Process: Q&A with Dave Gerulski.”⁹³ Lee suggests that the requirement for a voter to present identification at the time of voting is

⁸⁷ Rosenberg with Chen, 9.

⁸⁸ “UCSB ScienceLine,” University of California—Santa Barbara, October 10, 2011, <http://science.line.ucsb.edu/getkey.php?key=2650>.

⁸⁹ University of California—Santa Barbara.

⁹⁰ “What is Biometrics,” Michigan State University, Department of Computer Science and Engineering, accessed February 18, 2018, <http://biometrics.cse.msu.edu/info/index.html>.

⁹¹ Wolf et al., *Introducing Biometric Technology in Elections*, 17.

⁹² Wolf et al., 17.

⁹³ Lee, “Introducing Biometrics in the U.S. Voting Process.”

obtrusive and might negatively influence voter turnout, thereby suppressing votes.⁹⁴ Jurisdictions using fingerprint technology would no longer need to require state-issued identification during elections. After a biometric program is implemented, Lee submits that voters could press their fingers against a fingerprint scanner at the polling site to have their identity verified.⁹⁵ The concept sounds overly simple; learning from other expert sources as to security, plausibility, and adoptability of a biometrics program was next.

The Department of Homeland Security (DHS) identity management identification services website details how biometrics have long been utilized to enhance U.S. national security by identifying individuals at ports-of-entry, in airports, and across other screening programs.⁹⁶ The site reveals that the increased use of biometrics on college campuses, for banking transactions, phone and laptop access, driver's licenses, and public benefits are paving the way to consumer acceptance.⁹⁷ Many states currently have automated fingerprint identification systems (AFIS) embedded for credentialing and law enforcement purposes.⁹⁸

Several states have begun using biometrics as an identity management tool for driver's licenses, and also for public benefits recipients. John Fontana, of Identity Matters, highlights the Virginia Department of Motor Vehicle biometrics program for implementing a multi-year identity management implementation plan.⁹⁹ The system shares authentication data across state agencies so citizens can access services across many agencies in an attempt to improve service and reduce fraud. Plan supporters expect the program will save enough money to cover the cost of the program solely by fraud

⁹⁴ Lee.

⁹⁵ Lee.

⁹⁶ "Office of Biometric Identity Management Identification Services," Department of Homeland Security, accessed on March 1, 2017, <https://www.dhs.gov/obim-biometric-identification-services>.

⁹⁷ Department of Homeland Security.

⁹⁸ Rawlson O'Neil King, "Law Enforcement and Biometrics," *Biometric Update*, January 2016, <http://www.biometricupdate.com/201601/special-report-law-enforcement-and-biometrics>.

⁹⁹ John Fontana, "DMV Driving Virginia's Next-Gen Identity System," *ZDNet*, March 21, 2013, <http://www.zdnet.com/article/dmv-driving-virginias-next-gen-identity-system/>.

prevention.¹⁰⁰ Biometrics appears to be a growing identity management solution for many entities, both in the government and commercial arenas.

f. Biometric-Related Challenges

Peter B. Counter's *Findbiometrics.com* article "Biometrics Now Mandatory for Voting in the Philippines" reveals how the Philippines is utilizing biometrics to verify identity of voters in the effort to prevent multiple registrations and voter fraud.¹⁰¹ Voter participation is mandatory and individuals wanting to have their vote counted must have registered their biometrics in their national system. One of the challenges Philippine officials experienced was compelling eligible voters to register and have their biometrics taken prior to the nation's cut-off date. Counter suggests that if a nation restricts voting to citizens to those who have registered and provided their biometrics in advance, it may well suppress eligible voters. Certainly, a phased approach over a lengthy period might better facilitate success.

A number of nations, including Uganda, Kyrgyzstan, and Ghana, have added biometrics to their voter registration requirements as a method for identifying voters, whether with a biometric card or biometric readers at the polling sites. The article "Biometric 'Wahala' in Nigeria Election—Any Lesson for Ghana 2016?" explains that during the 2012 elections in Ghana, widespread biometric voter card-reading machine failure was experienced. The government ended up extending voting to a second day, as a result, and stopped the use of the card readers.¹⁰² Since that time, Ghana has effectively reduced the outages and has achieved a transparent, peaceful transition of power through its December 2016 elections.¹⁰³

¹⁰⁰ Fontana.

¹⁰¹ Counter, "Biometrics Now Mandatory for Voting in the Philippines."

¹⁰² "Biometric 'Wahala' in Nigeria Election—Any Lesson for Ghana 2016?" Vibeghana, March 30, 2015, <http://vibeghana.com/2015/03/30/biometric-wahala-in-nigeria-election-any-lesson-for-ghana-2016>.

¹⁰³ Abdul Karim Issifu, "Peaceful Elections in the December 2016 Polls: Role of the Ghanaian Youth," *Modern Ghana*, January 13, 2017, <https://www.modernghana.com/news/749044/peaceful-elections-in-the-december-2016-polls-role-of-the-g.html>.

g. Conclusion

This literary review highlights works by several eminent election experts, which expose the scholarly discourse on the possibility of voter fraud. The basis for their analysis stems from numerous comprehensive surveys and polls, self-initiated or from other sources, conducted throughout the past 20 years. This data became a foundation for the overall analysis within this thesis as well.

The U.S. Constitution, as well as federal and state statutes, was analyzed to understand the legal framework for elections and how these legalities play into developing policies, prevention, and ultimately holding individuals accountable for voter fraud. Many of the thesis literary sources were government reports, from the GAO, the DHS, and the DOJ. Publications from the EAC demonstrated voter eligibility fraud, other election flaws, and corresponding solutions to mitigate the issues.

State voter fraud assessments based on quantitative and qualitative data were not available. These assessments would be, if fully transparent and comprehensive, a critical source to understand fully the prevalence or lack of voter fraud occurring on voter registration lists and found during audits. Nevertheless, the remaining sources provide substantive information to answer the thesis research questions sufficiently.

B. RESEARCH DESIGN

During the 2016 presidential elections, candidates, federal agencies, and mainstream media voiced concerns over election vulnerabilities based on cyber attacks and voter fraud. The DHS designated elections as critical infrastructure in January 2017.¹⁰⁴ This designation led to the prospect of analyzing system vulnerabilities and seeking a solution to help safeguard elections. As such, a policy analysis was used to detect vulnerabilities, ascertain how to prevent fraudulent voting, and present solutions. It explored the prospects of a national voter registration list and biometrics as solutions, the benefits and impacts of which result in policy recommendations.

¹⁰⁴ Katie Bo Williams, "DHS Designates Election Systems as 'Critical Infrastructure'," The Hill, January 6, 2017, <http://thehill.com/policy/national-security/313132-dhs-designates-election-systems-as-critical-infrastructure>.

1. Data Sources

For this research, court documents, DOJ publications, an EAC study, and published surveys provided valuable information to understanding the existence and scope of voter fraud. Commission studies, political science think tank publications, academic institute research groups, and published surveys offered valuable insight into public perception and confidence in elections. State and federal government and organization websites, including the National Conference of State Legislatures website, provided insight on election management practices. Published reports from academic and non-profit organizations aiding countries with increasing election integrity around the world were useful for understanding biometric technologies used for elections. The Canada Elections website and the Brennan Center for Justice provided ample information on Canada's National Register, which is its national voter registration list. A variety of state and federal government documents were gathered and analyzed, specifically those relating to statutes, policies, and procedures.

As part of the thesis research, surveys were sent to state election officials. This effort gained valuable voter verification policy and practice information direct from 24 state election officials. The survey consisted of seven questions and each state election director received the same survey questionnaire (See Appendix A). An October 2017 National Association of State Election Directors roster was used for the contact information.¹⁰⁵ Emails were sent out to the 51 states and District of Columbia election board directors. Twenty-four responses were received. The survey responses were pulled together into charts and then analyzed (see Appendix B).

Survey Questions:

- What documents are *required* to show proof of in terms of age and residency to become a registered voter?
- How does the state verify citizenship for voting?

¹⁰⁵ "National Association of State Election Directors Roster," National Association of State Election Directors, October 4, 2017, <http://www.nased.org/>.

- How often does your state perform statewide voter roll maintenance (address changed, name changes, additions and verifications)?
- What resources does your state use for managing the statewide voter roll?
- What occurs when a non-citizen, an individual living in a different state, or otherwise ineligible person is detected and confirmed during voter registration or maintenance?
- If your state offers mail-in registration and mail-in voting, does your state check identification and at what point?
- Who prosecutes voter fraud in your state?

2. Type and Mode of Analysis

This thesis used a policy analysis framework to learn if a voter fraud problem exists for U.S. elections. The analysis defined the voter fraud spectrum and narrowed the review to voter identity and eligibility fraud possibly occurring due to vulnerabilities in the verification process. The evaluation considered constitutional and current federal and state laws. It assembled current practices used by the many states, and deconstructed them to detect gaps in the processes. The examination isolated specific verification challenges and exposed gaps. It then reviewed the impact the identified vulnerabilities would have on election integrity, confidence in elections, and ultimately, on democracy. After the inquiry concluded, the thesis examined the feasibility of a national voter registration list and use of biometrics as two potential solutions to shore up confirmed susceptibilities.

3. Limits

For the purpose of this thesis, only one type of election vulnerability was studied and presented. This research did not focus on cyber-security threats, gerrymandering, or insider threats, but more narrowly on voter identity and eligibility verification vulnerabilities, and potential solutions.

Elections create copious amounts of data, yet a lack of available information has resulted regarding state voter registration eligibility audits and assessments. The lack of quantitative data on registration inconsistencies, identified ineligible voters, and how fraud, once detected, is handled prevents a comprehensive understanding of the extent to which fraud prevails. This limitation prohibited a solid knowledge of how state officials manage and maintain the information, how they detect ineligible voters, and how they address discrepancies. Adding to the research challenge, election officials differ in how they treat misrepresentation on a registration card, and when fraud has occurred after an ineligible voter has voted. Officials may resolve misrepresentation and fraud at the local level as a civil response, or they may elevate it to state or to federal prosecution consideration. Voter fraud may be charged in many ways, whether under local, state, or federal statutes such as false statements, fraud and misrepresentation, or false claims to U.S. citizenship. The EAC 2005 report on election crimes was helpful with exposing voter fraud information and statistics; however, no other comprehensive local, state, or federal report was found. Although it is the mission of the Bureau of Justice Statistics (BJS) within the DOJ to collect, analyze, publish, and disseminate criminal information for all levels of government, no BJS reports were found that focus on election crimes. These challenges are limitations for this study. Data restrictions and a lack of transparency impede a comprehensive examination of the issue.¹⁰⁶

C. THESIS OVERVIEW

This thesis is organized into seven chapters. The first chapter introduces the problem statement and lays out the literature review and research design. Chapter II discusses the evidence of voter fraud, considers confidence in U.S. elections, and deliberates how voter fraud affects democracy. Chapter III explains how federalism plays into U.S. elections and reviews the various federal laws and commissions Congress enacted to ensure free and fair elections. Chapter IV details state voter verification practices and describes strengths and vulnerabilities within the processes. Chapter V digs into verification challenges, misgivings about voter identification laws, the difficulties of

¹⁰⁶ Lonna Rae Atkeson, "Election Data Transparency," in *The Measure of American Elections*, ed. Barry C. Burden and Charles Stewart III (New York: Cambridge University Press, 2014), 271.

verifying citizenship, using the REAL ID Act driver's licenses for voter verification, mail-in registration and voting susceptibilities, and the complications of keeping the voter registration list clean. Finally, Chapter VI discusses innovative solutions, including using a national voter registration database in a fashion similar to Canada and the potential for embedding biometrics for identity and eligibility verification purposes. Lastly, Chapter VII concludes with research findings and recommendations for enhancing voter verification to promote election integrity.

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II. IMPLICATIONS OF VOTER ELIGIBILITY FRAUD

This chapter sharply focuses on answering research question number one: To what extent does the potential for voter eligibility fraud exist? Are ineligible individuals voting? If yes, what implications does fraud have for the preservation of democracy? The chapter examines evidence of voter eligibility fraud, how election confidence is measured and why confidence is important, and how voter fraud may influence the health of a democratic system. As available information was analyzed to determine evidence, three central questions were answered: what evidence is there of fraud, is there a vulnerability that would allow fraud to exist, and why does fraud matter?

A. EVIDENCE OF VOTER ELIGIBILITY FRAUD

Publically elected leaders, as well as mainstream and social media, and even scholarly sources offer many opinions on whether voter eligibility fraud exists in the United States. Searching for voter fraud on the internet will undoubtedly return political far left media articles touting that fraudulent voting does not exist, or if it does, it is exceedingly rare.¹⁰⁷ On the extreme political right, it is possible to find plenty of articles claiming fraudulent voting is rampant.¹⁰⁸

Gathering election evidence is complicated. The information is hard to find and due to the complexity of the election system (system within systems), no way to gather reliable data consistently is available. Even a state election official may be challenged to gather statistics from the local election boards. Although mainstream media articles on voter fraud are common, finding comprehensive data on voter fraud cases was problematic. The lack of prosecutions and assessments may lead people to believe fraud is uncommon. Only a few studies focus on understanding whether fraudulent voting is

¹⁰⁷ Note: For an example of a typical far left article see Philip Bump, "Here's How Rare In-Person Voter Fraud Is," *Washington Post*, August 3, 2016, https://www.washingtonpost.com/news/the-fix/wp/2016/08/03/heres-how-rare-in-person-voter-fraud-is/?utm_term=.2918a8a6dbc4.

¹⁰⁸ For an example of a typical far right article see Joe Otto, "Data Proves that Voter Fraud is Rampant," *Conservative Daily*, April 4, 2014, <https://conservative-daily.com/2014/04/04/data-proves-that-voter-fraud-is-rampant/>.

occurring, whether gaps in processes allow for the possibility, and how pervasive the problem may be.

1. The 2006 EAC Study on Election Crimes

A 2006 EAC study concentrated on voter fraud and voter intimidation.¹⁰⁹ In this study, the EAC found that although a number of isolated studies on voter crimes have occurred, never before had a comprehensive, nationwide study been conducted. Its report attempted to remedy this gap. The EAC researchers interviewed key election experts in the field at the local, state, and federal levels; they reviewed books, reports, analyzed reported prosecutions, and studied media reports of fraud and intimidation.¹¹⁰ The group found no nationwide consensus for the basic definitions of voter fraud, and officials had a broad spectrum of beliefs on whether voter fraud was an actionable civil wrong or constituted a criminal act.¹¹¹

To establish a common definition, the EAC defined election crimes as:¹¹²

intentional acts or willful failures to act, prohibited by state or federal law, that are designed to cause ineligible persons to participate in the election process; eligible persons to be excluded from the election process; ineligible votes to be cast in an election; eligible votes not to be cast or counted; or other interference with or invalidation of election results. Election crimes generally fall into one of four categories: acts of deception, acts of coercion, acts of damage or destruction, and failures or refusals to act.

Election crimes can be committed by voters, candidates, election officials, or any other members of the public who desire to criminally impact the result of an election. However, crimes that are based upon intentional or willful failure to act assume that a duty to act exists. Election officials

¹⁰⁹ Election Assistance Commission, *Election Crimes: An Initial Review and Recommendations for Future Study* (Washington, DC: Election Assistance Commission, 2006), 5, <https://www.eac.gov/assets/1/1/2006%20Election%20Crimes%20Report.pdf>.

¹¹⁰ Election Assistance Commission, 2–5.

¹¹¹ Election Assistance Commission, 2.

¹¹² Election Assistance Commission, 2.

have affirmative duties to act with regard to elections. By and large, other groups and individuals do not have such duties.¹¹³

It is valuable to compare the EAC definition with the federal statutes of voter identity and eligibility fraud:

Knowingly procuring eligibility to vote for federal office by persons who are not entitled to vote under applicable state law, notably persons who have committed serious crimes (approximately 40 states) (42 USC §§ 1973i(c), 1973gg-10(2)), and persons who are not United States citizens (currently all states) (42 USC §§ 1973i(c), 1973gg-10(2); 18 USC §§ 1015(f), 611).

Knowingly making a false claim of United States citizenship to register to vote or to vote in any election (18 USC § 1015(f)), or falsely and willfully claiming US citizenship for, *inter alia*, registering or voting in any election (18 USC § 911).

Providing false information concerning a person's name, address, or period of residence in a voting district to establish that person's eligibility to register or to vote in a federal election (42 USC §§ 1973i(c), 1973gg-10(2)).¹¹⁴

In its report, the EAC goes on to state that “the victim of an election crime can be a voter, a group of voters, an election official, a candidate, or the public in general.”¹¹⁵ Finding the expression of what constitutes an election crime victim was surprising, as this expression is not widely used. It is logical that when a crime is committed, a victim is always present. In the case of election crimes, and specifically to the potential crime of voter fraud discussed within this thesis, voter fraud victimizes the public, the nation, and democracy.

The EAC study highlights preliminary findings of a 2005 Milwaukee joint task force investigation, which included investigators from the Federal Bureau of Investigation, Milwaukee County District Attorney, Milwaukee Police Department, and a

¹¹³ Election Assistance Commission.

¹¹⁴ Donsanto and Simmons, *Federal Prosecutions of Election Offenses: Seventh Edition*, 27–28.

¹¹⁵ Election Assistance Commission, *Election Crimes: An Initial Review and Recommendations for Future Study*, 13.

U.S. attorney.¹¹⁶ Investigators reviewed original voter registration records, as the Wisconsin voter datasets were deemed defective.¹¹⁷ The task force found, “widespread record keeping failures and separate areas of voter fraud.”¹¹⁸ Despite record failures, investigators found 100 instances of double-voting, determined that more than 200 felons voted, and determined “the number of votes counted for the City of Milwaukee exceed[ed] the number of persons recorded by more than 4,500.”¹¹⁹

The group of researchers reviewed over 40,000 cases identified through a series of keywords; they also reviewed thousands of media reports.¹²⁰

While these reports showed that there were a large number of allegations of voting fraud and voter intimidation, they provided much less information as to whether the allegations were ever formalized as complaints to law enforcement, whether charges were filed, whether prosecutions ensued, and whether any convictions were made. The media reports were enlightening regarding the pervasiveness of complaints of fraud and intimidation throughout the country, the correlation between fraud allegations and the perception that the state was a “battleground” or “swing” state, and the fact that there were reports of almost all types of voting fraud and voter intimidation. However, these reports do not provide much data for analysis as to the number of complaints, charges and prosecutions of voting fraud and intimidation throughout the country.¹²¹

In summary, the EAC report suggests election fraud indicators are rampant. The EAC goes on to state that hard evidence of actual instances, whether criminally charged or dealt with through civil intervention, is not readily available to the EAC.¹²² It can reasonably be concluded that this type of information is not readily available to researchers either.

¹¹⁶ Department of Justice, “Preliminary Findings of Joint Task Force Investigating Possible Election Fraud.”

¹¹⁷ Department of Justice.

¹¹⁸ Department of Justice, 1.

¹¹⁹ Election Assistance Commission, *Election Crimes: An Initial Review and Recommendations for Future Study*, Appendix 2, Summaries of Articles, Reports and Books, 56.

¹²⁰ Election Assistance Commission, 10.

¹²¹ Election Assistance Commission, 10.

¹²² Election Assistance Commission, 12.

2. The Colorado Example

In Colorado during 2011, 11,805 discrepancies were discovered between driver's license registries where non-citizen status was claimed and yet the individuals were on the voter registration rosters.¹²³ Colorado requested the assistance of the DHS in understanding if some of the individuals identified had become citizens during the period between gaining a driver's license and registering to vote.¹²⁴ Of the 11,805 individuals, 4,214 voted in the 2010 election.¹²⁵

3. Remediating Voter Fraud

Election officials, who are either elected or appointed by partisan actors, differ on what the proper venue is for dealing with voter fraud cases. Some believe it is a civil matter best rectified at the local court level, while others push cases higher, to the state or federal courts.¹²⁶ The officials appear to have discretion on how to treat false claims on the voter registration cards and fraudulent voting. The 2005 EAC study reports, "Very few cases that are decided at the district court level are reported for public review." These distinctions affect the ability to gather the information. While civil punishments, enforcement actions, and prosecutions for voter fraud would generally result in public records, states seem rarely to report voter fraud or compile related data in a way that is accessible for researchers or the public.

It appears no state or federal requirement is on the books for governments to expose to the public any findings of ineligible voters on their listings or ineligible voters who actually voted, whether for single instances or in reoccurring reports. The methods for detecting ineligible voters, resolving potential ineligible voter issues, or dealing with ineligible voters who actually voted are all disparate. Jurisdictions may choose not to pursue confirmed issues, resolve them by local civil action, or promote them as a case for

¹²³ State of Colorado, Department of State, *Comparison of Colorado's Voter Rolls with Department of Revenue Non-Citizen Records* (Denver: State of Colorado, Department of State, 2011), http://cha.house.gov/sites/repUBLICans.cha.house.gov/files/documents/hearing_docs/co_non_citizen_report.pdf.

¹²⁴ State of Colorado, Department of State.

¹²⁵ State of Colorado, Department of State.

¹²⁶ Election Assistance Commission, *Election Crimes: An Initial Review and Recommendations for Future Study*, 10.

county, state, or federal prosecution. No required tracking of these issues appears to be required either.

Whether the lack of transparency is due to shielding the public from this issue, because officials do not have the appropriate tools, or because officials are finding no issue is unclear. Due to these inconsistencies, historical attempts to analyze voter fraud are segmented and fractured. Analyzing the voter verification system as a comprehensive critical infrastructure provides a necessary framework to peel back the disparate layers of policies and practices to understand what is in place and if vulnerabilities exist.

4. Lack of Voter Fraud Prosecutions

Another incongruity is determining voter fraud is rare because few voter fraud prosecutions result. While it appears few voter fraud prosecutions have occurred, revealing the number of prosecutions is difficult as multiple types of criminal charges may be used, and prosecutions may be made at the county, state, or federal levels. Given the complexity and span of the legal system, it is problematic to gain an exact number of individuals convicted for false claims, false statements, or fraud specific to voter eligibility fraud at the federal level. It is impossible to gain it at the state or county levels, certainly within the confines of the thesis time limitations.

In addition, many legitimate criminal cases never reach prosecution. For example, in fiscal year 2014, the Bureau of Justice Statistics revealed 14,012 suspects were investigated for fraud by the DOJ.¹²⁷ Of those, only 8,269 were charged in criminal cases. Point being, criminal cases may be plea-bargained or declined based upon prosecutorial discretion, especially if a non-criminal alternative to prosecution is presented.¹²⁸ Most civil cases are settled. It can be reasonably assumed the same would be for voter fraud cases. The burden of proof for clear, convincing, knowing, and willing

¹²⁷ “Federal Criminal Case Processing Statistics,” Department of Justice, Bureau of Justice Statistics, accessed December 18, 2017, <https://www.bjs.gov/fjsrc/>.

¹²⁸ Bureau of Justice Assistance, *Plea Bargaining Research Summary* (Washington, DC: Department of Justice, 2011), <https://www.bja.gov/Publications/PleaBargainingResearchSummary.pdf>; Department of Justice, “Principles of Federal Prosecution: updated February 2018, Prosecution: 9-27.220,” <https://www.justice.gov/usam/usam-9-27000-principles-federal-prosecution>.

is particularly high for a case to be accepted for investigation. Gauging the evidence of voter fraud by prosecutions or court cases may be a flawed approach.

Still, for over 30 years, the DOJ Public Integrity Section has overseen the federal effort to combat election fraud and corruption through prosecution. Section attorneys prosecute carefully chosen cases against federal, state, and local officials, and serve as subject matter experts to other prosecutors and investigators. Their annual report to Congress cites specific prosecutions and resulting precedent decisions. As this information is based upon court records and evidence gained at a high standard of burden of proof, it is extremely valuable and credible to the story on election fraud malfeasance.

State and federal election crimes often involve the fraudulent use of absentee voter ballots, ineligible voting, and false registrations.¹²⁹ To prevent these offenses, it is necessary to detect fraud, in advance, to ensure the integrity of the election process. Unfortunately, these crimes are generally identified after the harm is done and the vote is counted. The purpose of the crime has been gained. The knowing and willing engagement of the crime and clear and convincing material evidence that the crime was committed is typically the actual successful cast of a vote or the tangible effect of a disruption to an election.

Although no published reports on state voter fraud assessments based upon voter registration maintenance are available, voter fraud prosecutions are occurring.¹³⁰ It is unclear whether the lack of released reports to the public is due to the states choosing not to produce reports or due to complications the states may have in verifying voter information, including U.S. citizenship. Perhaps, the demand for this research and reporting has simply not been made. It appears likely that the states do not have the tools they need to vet a voter fully, specifically for verifying citizenship.

¹²⁹ Donsanto and Simmons, *Federal Prosecutions of Election Offenses: Seventh Edition*, 24.

¹³⁰ Donsanto and Simmons, 44–46, 63–69.

5. Additional Empirical Information Is Needed

Comprehensive and transparent assessments are needed, however, to understand fully the risks inherent to elections, including voter fraud.¹³¹ This issue is corroborated by the EAC, which found voter fraud exists, but it cannot discern to what degree it exists.¹³² To say fraudulent voting is rampant appears inaccurate, but to say voter fraud is not an issue or does not exist is not a fair assessment either. Until local and state officials are transparent and faithfully record these incidents in a standardized, measurable way, the full scope of the issue cannot be determined. It is impossible to be precise due to the lack of information available on the subject. The National Conference for State Legislatures (NCSL) has achieved an immense amount of work collating election information for the states, and yet, the NCSL affirms in its March 2013 *The Canvass*,

For election administration, finding “evidence” is tricky. Every state, and frequently every jurisdiction, conducts elections differently, making comparisons difficult. Data is not gathered uniformly nationwide as it is in many other government arenas. Election costs are hard to track because they’re borne by several levels of government. You get the idea—it is hard to get facts and figures to support election evaluation.¹³³

The best evidence of voter fraud would be both in state assessments, which are either not conducted or not available, as well as the numbers of county, state, or federal prosecutions. Evidence of ineligible voters on the registration rosters, as well as the numbers of fraudulent votes would be the type of data ideally gathered. As this information is not currently available, any gauge of voter fraud must be in the possibility of a voter fraud vulnerability; in other words, the possibility of ineligible voters voting and having their vote count.

In summary:

¹³¹ Atkeson, “Election Data Transparency,” 271.

¹³² Election Assistance Commission, *Election Crimes: An Initial Review and Recommendations for Future Study*, 8.

¹³³ “The Canvass: Measuring Elections: Data, Not Anecdotes,” National Conference of State Legislatures, March 2013, <http://www.ncsl.org/research/elections-and-campaigns/the-canvass-march-2013.aspx>.

- States are not transparent about how many individuals are found to be ineligible when registering or voting.
- No standard systemic requirement appears to exist for states to audit and report to the public how many election crimes or violations they encounter.
- Civil and criminal responses to voter fraud are awkward and inconsistent, at best.

The nation needs more empirical data and stricter scientific study on this topic. Local and state data on the numbers of ineligible individuals identified during the registration process, registration list maintenance, voting, or attempting to vote by any means (at the polling site, absentee or mail-in voting) should be transparent and available for researchers and the public.

6. Conclusion

Without published audits and empirical data from the states, the facts negating or substantiating voter identify fraud are not clear. The only evidence available is cases in which voter fraud has been prosecuted, which excludes voter fraud remedied through administrative processes, such as mail confirmation and removal of the voter from the registration or civil actions.

B. CONFIDENCE IN U.S. ELECTIONS

Voter fraud, perceived or real, affects trust in the electoral system.¹³⁴ It affects confidence in the legitimacy of the outcome and may eventually cause democratic erosion.¹³⁵ Measuring voter confidence helps understand how weak election systems affect the health of U.S. democracy. The potential for distrust, discord, and diminished democracy underscores the need to resolve voter fraud vulnerabilities.

¹³⁴ Commission on Federal Election Reform, *Building Confidence in U.S. Elections*, 18.

¹³⁵ Schmitter and Karl, “What Democracy is...and is Not”; Schedler, “What is Democratic Consolidation?” 97.

A number of ways to measure confidence and develop analytical frameworks appear to be available for assessing trust in U.S. elections including quantitative and qualitative surveys, election polling, and by aggregating voter registration and participation as compared to the number of eligible voters. Neither surveys, polls, nor aggregate numbers are perfect, but both can provide an overall sense of election performance. Several prominent sources provide detailed surveys. Although their questions, word choices, and disclaimers on methods and variances may be different, the surveys still provide useful results.

The majority of recent surveys and polls reveal that American confidence in elections is declining. Political scientist Paul Gronke suggests that voter confidence is impacted by state laws, the voters mode of voting, their perception of their voting experience, and loser's regret and partisanship.¹³⁶ According to his survey analysis, 72 percent of Americans were very confident in elections during 2008, and declined 10 percent to 62.7 percent for the 2012 elections.¹³⁷ Those who voted for the winner had a higher degree of confidence, while those that voted for the loser had lower confidence. Vote-by-mail voters had a confidence of 61.3 percent in 2008 and this percentage diminished by 2012 to 55.7 percent.¹³⁸ When asked about fraud, 22.7 percent of the 2008 survey participants felt fraud was common.¹³⁹ This percentage increased in 2012 to 52.5 percent.¹⁴⁰

As mentioned in Chapter I, according to the EIP) “expert estimates developed by EIP, the 2012 and 2014 elections in the United States displayed the worst performance among all Western democracies,” and that, in comparison with all 153 included countries

¹³⁶ Paul Gronke, “Voter Confidence as a Metric of Election Performance,” in *The Measure of American Elections*, ed. Barry C. Burden and Charles Stewart III (New York: Cambridge University Press, 2014), 254–255.

¹³⁷ Gronke.

¹³⁸ Gronke.

¹³⁹ Gronke.

¹⁴⁰ Gronke.

in its survey, the United States ranked 52nd worldwide.¹⁴¹ The survey demonstrates specific declining trust in election campaign practices and voter registrations.

In 2012, the *Washington Post* asked poll participants if voter malfeasance was problematic in general elections.¹⁴² Nearly 50 percent of the participants believed it to be a significant issue; one-third considered it negligible, and one out of six stated it was not an issue.¹⁴³

During the summer of 2016, a poll was conducted by the AP-NORC Center for Public Affairs Research. Only 36 percent (or 381) of the 1,060 participants stated they had “a great deal of confidence” that their vote in the November 2016 election would be counted accurately.¹⁴⁴ Nearly 700 of those surveyed had only some or hardly any confidence in the election.

In a Gallup poll conducted just prior to the 2016 elections, only 60 percent of the 1,013 Americans surveyed were confident their vote would be counted in the general elections.¹⁴⁵ After the 2016 elections, in their 2017 survey, the EIP found that no gains were made in U.S. election confidence. The United States ranked 55th worldwide out of 158 countries, and much lower than the United Kingdom, Australian, and Canadian rankings.¹⁴⁶

In sum, it appears confidence in U.S. elections is diminishing, which is causing doubt and conflict.¹⁴⁷ Election discrepancies and inefficiencies come at a price. The evidence is in the implicitly biased narratives, media sensationalism, and public discord

¹⁴¹ Norris et al., *The Year in Elections, Mid-2016 Update*, 12; Norris, *Why American Elections are Flawed (And How to Fix Them)*.

¹⁴² Michael Brandon and Jon Cohen, “Poll: Concerns about Voter Fraud Spur Broad Support for Voter ID Laws,” *The Washington Post*, August 11, 2012, https://www.washingtonpost.com/politics/poll-concerns-about-voter-fraud-spur-broad-support-for-voter-id-laws/2012/08/11/40db3aba-e2fb-11e1-ae7f-d2a13e249eb2_story.html?utm_term=.af5e68a58a2f.

¹⁴³ Brandon and Cohen.

¹⁴⁴ “The Frustrated Public: Views of the 2016 Campaign, the Parties, and the Electoral Process,” Associated Press-NORC Center for Public Affairs Research, 2016, <http://www.apnorc.org/projects/Pages/HTML%20Reports/the-frustrated-public-americans-views-of-the-election-issue-brief.aspx>.

¹⁴⁵ McCarthy, “Gallup Polls,” 12.

¹⁴⁶ McCarthy, 12.

¹⁴⁷ Todd, Murray, and Dann, “The FBI.”

surrounding elections and acceptance of national leaders. Multiple survey responses demonstrate Americans are discontent and uneasy about the U.S. election system. The United States is experiencing a trust deficit in its government. Rebuilding public faith in the election system will go a long way in recovering confidence. All weak points should be resolved or mitigated in a way that stimulates public confidence and inspires participation.

C. VOTER FRAUD AND DEMOCRACY

Voting is one of the most fundamental rights and responsibilities of citizens.¹⁴⁸ Democracy cannot exist without free and fair elections.¹⁴⁹ When voting fraud occurs, the nation, the American public, and democracy are victims.¹⁵⁰ Any actual or perceived voter fraud can lead to the perception of an unfair, tainted election.¹⁵¹

Confidence in the integrity of our electoral processes is essential to the functioning of our participatory democracy. Voter fraud drives honest citizens out of the democratic process and breeds distrust of our government. Voters who fear their legitimate votes will be outweighed by fraudulent ones will feel disenfranchised.¹⁵²

Whether real or perceived vulnerabilities to elections exist, simple doubt in the reliability and fairness may cause discord and diminish confidence in the voting system.¹⁵³ Speculation, sensationalism, and biased rhetoric add fuel to the fire. As confidence erodes, the legitimacy of the election outcomes may be challenged.¹⁵⁴ The citizenry can be affected by this conjecture and melodrama, unless evidence-based information is available and reason can prevail. Whether it is a perfect measure for

¹⁴⁸ “Citizenship Rights and Responsibilities,” U.S. Citizenship and Immigration Services, accessed February 19, 2018, <https://www.uscis.gov/citizenship/learners/citizenship-rights-and-responsibilities>.

¹⁴⁹ Schmitter and Karl, “What Democracy is...and is Not,” 78.

¹⁵⁰ Election Assistance Commission, *Election Crimes*, 2.

¹⁵¹ Commission on Federal Election Reform, *Building Confidence in U.S. Elections*, 1; Andrew N. DeLaney, “Appearance Matters: Why the State Has an Interest in Preventing the Appearance of Voting Fraud,” *New York University Law Review* 83, no. 3 (June 2008): 3.

¹⁵² *Purcell v. Gonzalez*, 127 S. Ct. 5, 7 (2006) (per curiam).

¹⁵³ Todd, Murray, and Dann, “The FBI, The 2016 Election and the Confidence Deficit.”

¹⁵⁴ Commission on Federal Election Reform, *Building Confidence in U.S. Elections*, 18.

election efficacy or not, confidence in the U.S. election process is tantamount to the perception of how well the democracy is performing.

According to the Economist Intelligence Unit, the analytical group for the British-led Economist Group and sister agency to *The Economist* newspaper, democracy in the United States is definitely eroding.¹⁵⁵ Its 2016 study analyzes the status of democracy around the globe and scores confidence based upon the following five categories: “electoral process and pluralism; civil liberties; the functioning of government; political participation; [and] political culture.”¹⁵⁶ *The Economist* reports that the number of full democratic nations in the world has dropped from 20 in 2015 to 19 in 2016.¹⁵⁷ The United States has been downgraded to a “flawed democracy” due to a loss of trust in government and elected officials.¹⁵⁸

If fraudulent voting is occurring or perceived due to careless verification practices, it can harm the outcome of an election. Voter fraud impacts the constitutional and inalienable right for U.S. citizens to have a collective voice in their choice for the nation’s leaders. Fraud diminishes election fairness and integrity. Unaddressed, fraud can affect the outcome of elections, whether by a literal effect on the number of legitimate votes, or by eroding trust in the integrity of the election.

The manner in which voter fraud is prevented can also fundamentally affect the voting opportunity, however. It may discourage voting, or cause undue burdens on certain populations, which is clearly out of alignment with the U.S. Constitution. Practices need to balance the need for providing the equal opportunity for a U.S. citizen to cast a ballot (a free election), while ensuring the additional Constitution requirement for integrity (a fair election). A fair election is achieved by mitigating and preventing any fraud, abuse, or error, and confirming the laws of the land are being met.¹⁵⁹

¹⁵⁵ Economist Intelligence Unit, *Democracy Index 2016: Revenge of the “Deplorable”* (London, UK: The Economist Group, 2017), <http://www.eiu.com/Handlers/WhitepaperHandler.ashx?fi=Democracy-Index-2016.pdf&mode=wp&campaignid=DemocracyIndex2016>.

¹⁵⁶ Economist Intelligence Unit.

¹⁵⁷ Economist Intelligence Unit.

¹⁵⁸ Economist Intelligence Unit.

¹⁵⁹ Fischer, Garrett, and Whitaker, *State Voter Identification Requirements*, 21.

A key factor of a strong, stable democracy is an election considered free and fair.¹⁶⁰ The evidence for this factor must be both tangible (through scientific analysis) and through the perceived confidence of the voters that includes the lead up to the election, the ability for voters to register and for ineligible voters to be detected. It also considers the actual Election Day, such as the availability and convenience of voting. Lastly, it also considers the peaceful, diplomatic transition of power.¹⁶¹ The contentious nature of recent elections is another strong indicator that democracy in the United States may be backsliding.

In conclusion, election scholars and experts make valid points about the existence or rarity of documented voter fraud prosecutions and detections. Without substantial proof by records, prosecutions, and convictions, the research approach for this thesis problem had to change. Instead of asking, “does voter fraud exist?” the question became “can voter fraud exist?” Do systemic weaknesses exist that allow fraud to be a problem? Answering this question required deconstructing current policy and verification practices to learn if weaknesses exist that might open the door to voter fraud.

¹⁶⁰ Lena Melillo, “Voter Fraud Remains a Concern,” University Wire, October 19, 2016, <http://dailytrojan.com/2016/10/19/voter-fraud-remains-concern/>.

¹⁶¹ Melillo.

III. FEDERALISM, FEDERAL LAWS AND COMMISSIONS

This chapter examines the role of federalism in elections, federal government involvement through laws and commissions, and the right of U.S. citizens to vote. The separation of federal and state powers affects how elections for national leaders are managed and how election laws, policies, and practices are constructed and carried out.

A. FIRST, FEDERALISM

The Tenth Amendment guarantees the powers of states and specifies that any power not defined in the constitution as a federal power is a state power. Further, the election clause within article 1, section 4, clause 1, stipulates:

The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by Law make or alter such Regulations, except as to the Places of chusing [*sic*] Senators.¹⁶²

The federal government cannot exercise its powers in a way that interferes with the states' abilities to perform their responsibilities. The Constitution charges states to carry out presidential primaries, state primaries, and general elections, unless the states perform these duties in a way that conflicts with a Constitutional rule or right.¹⁶³

Constitutional violations, such as the suppression of citizen voting, have occurred many times over the last 228 years. In response, Congress has passed laws relating to key areas of the election process including prohibitions against discriminatory practices, fraud, and corruption.¹⁶⁴ These federal election laws have solidified the constitutional right to vote for U.S. citizens and have historically focused on establishing and clarifying

¹⁶² U.S. Const. article 1 Sec. 2, clause 1.

¹⁶³ USHistory.org, "The Founders and Federalism"; U.S. Const. amend. X Sec 2.

¹⁶⁴ Anthony H. Gamboa, *Elections: The Scope of Congressional Authority in Election Administration*, GAO-01-470 (Washington, DC: Government Accountability Office, 2001), 2, <https://www.gao.gov/new.items/d01470.pdf>.

the procedural parameters for presidential primaries, state primaries, and general elections to ensure election integrity.¹⁶⁵

B. FEDERAL ELECTION LAWS AND COMMISSIONS

Several constitutional amendments were a result of protests or significant historical events, including authorizing African-American men the right to vote, granting women the right to vote, eliminating poll taxes, and lowering the voter age to 18 for all elections.¹⁶⁶ Additionally, Congress enacted several federal laws to further protect constitutional rights, such as:

- Civil Rights Act (1870, 1957, 1960, and 1964)
- Voting Right Act of 1965; Federal Election Campaign Act of 1971 (including the formation of the Federal Election Commission)
- Voting Accessibility for the Elderly and Handicapped Act of 1984
- Uniformed and Overseas Citizens Absentee Voting Act of 1986
- National Voter Registration Act of 1993
- Help America Vote Act of 2002 (including the creation of the U.S. EAC)
- Military and Overseas Voting Empowerment (MOVE) Act of 2009 amending the related 1986 Act.¹⁶⁷

Congress established these laws to ensure free and fair elections for all citizens.¹⁶⁸ Additionally, these laws provide an important legal framework for federally prosecuting those who break election laws, such as corrupt voting officials and non-citizen voters.

¹⁶⁵ Michael T. Morley, “Dismantling the Unitary Electoral System?: Uncooperative Federalism in State and Local Elections,” *Northwestern University Law Review Online* 111, no. 103 (February 2017): 106, https://scholarlycommons.law.northwestern.edu/nulr_online/243.

¹⁶⁶ “Voting and Election Laws,” USA.gov, accessed October 10, 2016, <https://www.usa.gov/voting-laws>.

¹⁶⁷ USA.gov.

¹⁶⁸ USA.gov.; Daniel Sutter, “Detecting and Correcting Election Fraud,” *Eastern Economic Journal*, 29, no. 3 (Summer 2003): 433.

The U.S. Constitution permits punitive laws related to national elections, and the Federal Election Campaign Act of 1971 regulates the election campaign conduct.¹⁶⁹ Provisions of these federal acts supersede any provision of state law dealing with federal elections.¹⁷⁰

When individuals violate federal law, they can be prosecuted at the federal level. Specifically, when an ineligible individual registers to vote for or votes in a presidential primary, state primary, and a general election they then may be prosecuted at the federal level to include Titles 18 and 42 charges for “knowingly procuring eligibility to vote by persons not entitled to do so,” “knowingly making a false claim of U.S. citizenship to vote,” and “providing false information concerning eligibility to vote in a federal election.”¹⁷¹

Just as federal laws were created to ensure free and fair elections and standards of conduct, no less than four federal commissions have been established to provide best practices and guidance to states and candidates relating to elections. Two of these were created through legislation and two by executive order:

- The Federal Election Commission was created by legislation in 1971 and focuses heavily on campaign financing.¹⁷²
- The EAC was formed under the Help America Vote Act in 2002 to make recommendations on best practices for the efficient and effective administration of elections, to ensure no voter suppression based on disabilities or English language proficiencies, as well as to guarantee accessibility, education, and to oversee the logistics of polling places.¹⁷³

The EAC was the first of its kind to provide federal specifications on

¹⁶⁹ “Violations of Election Laws,” US Legal, accessed February 2, 2018, <http://elections.uslegal.com/violations-of-election-laws/>.

¹⁷⁰ “Federal Elections: Effect on State Law,” Office of the Federal Register, National Archives and Records Administration, *Code of Federal Regulations*, title 11 (2002): 142, <https://www.gpo.gov/fdsys/pkg/CFR-2016-title11-vol1/pdf/CFR-2016-title11-vol1.pdf>.

¹⁷¹ 42 U.S.C. §§ 1973i(c), 1973gg-10(2), 18 U.S.C. §§ 1015(f), 611, 18 U.S.C. § 1015(f), and 18 U.S.C. § 911; Donsanto and Simmons, *Federal Prosecutions of Election Offenses: Seventh Edition*, 27–28.

¹⁷² “Federal Election Commission,” accessed December 3, 2017, www.fec.gov.

¹⁷³ “Help America Vote Act,” Election Assistance Commission, accessed January 19, 2018, <https://www.eac.gov/about/help-america-vote-act/>.

electronic devices and databases due to systemic vulnerabilities. The Commission has developed and maintains a voluntary voting system guideline, provides testing and certification of voting software and hardware, carries out the Help American Vote College Program, and provides grants to states for the procurement of voting equipment.¹⁷⁴ The EAC has provided over \$3.3 billion in federal funds to states and other eligible entities since its inception.¹⁷⁵

- The Presidential Commission on Election Administration was created in 2013 by the Obama Administration to study the registration and voting processes used in federal elections.¹⁷⁶ President Obama tasked the commission to complete a report on “laws, rules, policies, activities, strategies, and practices that enhance the American people’s confidence in the integrity of the voting processes used in federal elections. This report was to include the laws, rules, policies, activities, strategies, and practices that undermine the American people’s sureness in the integrity of the voting processes used in Federal elections; and those vulnerabilities in voting systems and practices used for Federal elections that could lead to improper voter registrations and improper voting, including fraudulent voter registrations and fraudulent voting.”¹⁷⁷
- Most recently, the Trump administration created the Presidential Advisory Commission on Election Integrity (PACEI) in May 2017.¹⁷⁸ President

¹⁷⁴ Election Assistance Commission, *Fiscal Year 2018, Congressional Budget Justification* (Silver Spring, MD: Election Assistance Commission, 2017), 5, https://www.eac.gov/assets/1/6/FY_2018_CBJ_May_23_2017_with_Attachment_A_FINAL.pdf.

¹⁷⁵ Election Assistance Commission, 5.

¹⁷⁶ Barack Obama, Executive Order 13639, “Establishment of the Presidential Commission on Election Administration,” Code of Federal Regulations, title 3 (2013), <https://www.gpo.gov/fdsys/pkg/CFR-2014-title3-vol1/pdf/CFR-2014-title3-vol1-eo13639.pdf>.

¹⁷⁷ Obama.

¹⁷⁸ Donald J. Trump, Executive Order 13799, “Establishment of Presidential Advisory Commission on Election Integrity,” Code of Federal Regulations, title 3 (2017), <https://www.gpo.gov/fdsys/pkg/DCPD-201700326/pdf/DCPD-201700326.pdf>.

Trump’s executive order directed the PACEI to focus on four fundamental topics: voter participation, voter confidence, fraud, and voting machine security. After unsuccessfully gaining state voter registration data sets and facing multiple lawsuits, the commission was disbanded in January 2018.

An important and recent example of federal involvement in elections occurred on January 6, 2017, when former DHS Director Jeh Johnson designated U.S. elections as a subsector of the existing government facilities critical infrastructure.¹⁷⁹ This federal designation does not require states to follow critical infrastructure mandates; rather, it provides guidelines and support for the states with the purpose of enhancing election security and integrity.¹⁸⁰

C. THE CONSTITUTIONAL RIGHT TO VOTE

It took 178 years of American progression and legislation to refine just what the “constitutional right to vote” in federal elections requires. The U.S. Constitution mentions the right to vote for citizens five times, more than any other constitutional right.¹⁸¹ Section One of the 14th Amendment defines U.S. citizens as “all persons born or naturalized in the United States.”¹⁸² Section Two imposes a fine on states that deny the right of U.S. citizen male residents of a state who are at least 21 years old to participate in any state or federal election unless they participate in rebellion or crime.¹⁸³ The 15th Amendment states, “The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous

¹⁷⁹ “Statement by Secretary Jeh Johnson on the Designation of Election Infrastructure as a Critical Infrastructure Subsector,” Department of Homeland Security, January 6, 2017, <https://www.dhs.gov/news/2017/01/06/statement-secretary-johnson-designation-election-infrastructure-critical>.

¹⁸⁰ “Elections—Critical Infrastructure,” Election Assistance Commission, accessed November 11, 2017, <https://www.eac.gov/election-officials/elections-critical-infrastructure/>.

¹⁸¹ Garrett Epps, “Voting: Right or Privilege?” *Atlantic*, September 18, 2012, <https://www.theatlantic.com/national/archive/2012/09/voting-right-or-privilege/262511/>.

¹⁸² U.S. Const., amend. XIV. Sec. 1.

¹⁸³ U.S. Const., amend. XIV. Sec. 2.

condition of servitude.” The amendment further goes on to state Congress has the authority to enforce this article through criminal statutes.¹⁸⁴

The 19th Amendment declares, “The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of sex.”¹⁸⁵ The “rights of citizens of the United States to vote ... shall not be denied or abridged by the United States or any State by reason of failure to pay any poll tax or other tax” is specified in the 24th Amendment.¹⁸⁶ Finally, the 26th Amendment makes states, “The right of citizens of the United States, who are eighteen years of age or older, to vote shall not be denied or abridged by the United States or by any State on account of age.”¹⁸⁷

- Who Can and Cannot Vote in General Elections

Summarized, the following constitutional rules are used for presidential primaries, state primaries, and general elections:

- Voters [of general elections] must be:
 - U.S. Citizens
 - Residents of the state and jurisdiction in which they vote
 - At least 18 years of age on or before Election Day
- Who Cannot Vote:
 - All states have made it illegal for non-citizens to vote in general elections, including lawful permanent residents (also see 18 USC. § 611, Voting by Aliens).
 - U.S. citizens born in U.S. territories do not have the right to vote for the President in the general election.
 - In some states, not be found mentally incompetent or have a felony conviction.¹⁸⁸

¹⁸⁴ U.S. Const., amend. XV. Sec. 1.

¹⁸⁵ U.S. Const., amend. XIX.

¹⁸⁶ U.S. Const., amend. XXIV.

¹⁸⁷ U.S. Const., amend. XXV.

¹⁸⁸ “Register to Vote,” USA.gov, accessed November 19, 2017, <https://www.usa.gov/register-to-vote>.

IV. STATE ELECTION MANAGEMENT PRACTICES

National election administration resides at the state level and includes overseeing registration procedures, absentee and early voting, and management of all technical and non-technical Election Day processes. Millions of decentralized components make up the extremely complex election system; it is a system within systems. The components may be disparate, but all are interrelated in some fashion. Some states have standardized processes within their jurisdictions, while others have given local election jurisdictions considerable independence and discretion.

Most of the governing law comes from the states, not Congress, and much authority resides in the hands of thousands of counties and municipalities scattered across the country. This decentralization, along with the absence of data by which to measure election performance, makes it extremely difficult to determine how well election administration is functioning in various jurisdictions.¹⁸⁹

A state may use multiple types of voting equipment used and numerous voter registration listings. Officials may administer policies differently in one jurisdiction than in another. These practices may isolate attacks against the entire system; the disparities, however, may also negate uniform protections.¹⁹⁰

A. STATE ELECTION INFRASTRUCTURE AND PROCESSES

To detect potential issues specifically regarding voter identity and eligibility verification, this thesis delves into the state election operations, practices, and capabilities. The sheer magnitude of the decentralized election system is difficult to fathom.

¹⁸⁹ Daniel Tonkaji, *Tokaji's Election Law in a Nutshell* (St. Paul, MN: West Academic Publishing, 2013), loc. 2187 of 5243, Kindle.

¹⁹⁰ Gambler, *Elections*.

1. Election Infrastructure Statistics

Approximately 10,500 local election jurisdictions exist.¹⁹¹ This number includes over 176,000 precincts and roughly 115,000–120,000 physical polling places. During the 2016 presidential election, states operated 116,990 physical polling places.¹⁹² At these polling places, 25 states use electronic voter lists (sometimes called electronic poll books).¹⁹³ Most polling places still use paper printouts of registered voters and require voters to present identification.¹⁹⁴

2. The Workers

Nearly 920,000 poll workers were deployed for the 2016 Election Day.¹⁹⁵ This massive force was responsible for verifying the identity of the voter, assisting voters with questions, signing registers or affidavits, issuing ballots, and overseeing the security of the voting process.¹⁹⁶ The workers may serve other functions, depending on state law, such as setting up voting machines and other sensitive technologies.¹⁹⁷

3. The Machinery

Many polling locations employ multiple voting systems, such as a scanner for absentee ballots and a direct recording electronic (DRE) device for in-person voting. A 2012 survey by the EAC gathered data on almost 320,000 voting systems including DREs with and without a voter-verified paper audit trail option; optical or digital systems used to scan and tally paper ballots, hybrid systems, antiquated lever machines, common paper ballots, and other systems.¹⁹⁸ The most common voting system was a combination

¹⁹¹ Gambler, *Elections*.

¹⁹² Election Assistance Commission, *EAVS Deep Dive: Poll Workers and Polling Places White Paper* (Washington, DC: Government Printing Office, 2017), 1, <https://www.eac.gov/documents/2017/11/15/eavs-deep-dive-poll-workers-and-polling-places>.

¹⁹³ Election Assistance Commission.

¹⁹⁴ Election Assistance Commission.

¹⁹⁵ Election Assistance Commission.

¹⁹⁶ Election Assistance Commission; Election Assistance Commission, *The 2012 Election Administration and Voting Survey*.

¹⁹⁷ Gambler, *Elections*; Election Assistance Commission.

¹⁹⁸ Election Assistance Commission.

of scanned and tallied paper ballots using optical or digital scans.¹⁹⁹ Only 18 states reported deploying DREs that create a paper record that voters can check, which enhances audit efforts.²⁰⁰

4. The Voters

Out of the roughly 313 million people who populated the United States in 2012, which includes adult and children citizens and non-citizens, 194 million were registered to vote for the 2012 presidential election.²⁰¹ In other words, 62 percent of the population registered to vote in the 2012 elections. The remaining eligible citizens either chose not to register or were unable to meet the requirements for registering to vote. Of the 194 million registered, only 131,590,825 (68 percent) of the registered voters actually participated in the 2012 election.²⁰² The majority chose to cast their ballots at polling sites, some voted by mail, some were allowed to vote early, and some provisionally voted, as shown in Figure 1.

¹⁹⁹ Election Assistance Commission.

²⁰⁰ Election Assistance Commission.

²⁰¹ U.S. Census Bureau, *Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2012*, NST-EST2012-01 (Washington, DC: U.S. Census Bureau, 2012), <https://www.census.gov/popest/data/state/totals/2012/>; Gambler, *Elections*; Election Assistance Commission, *The 2012 Election Administration and Voting Survey*, 1–4.

²⁰² U.S. Census Bureau; Gambler; Election Assistance Commission, 1–4.

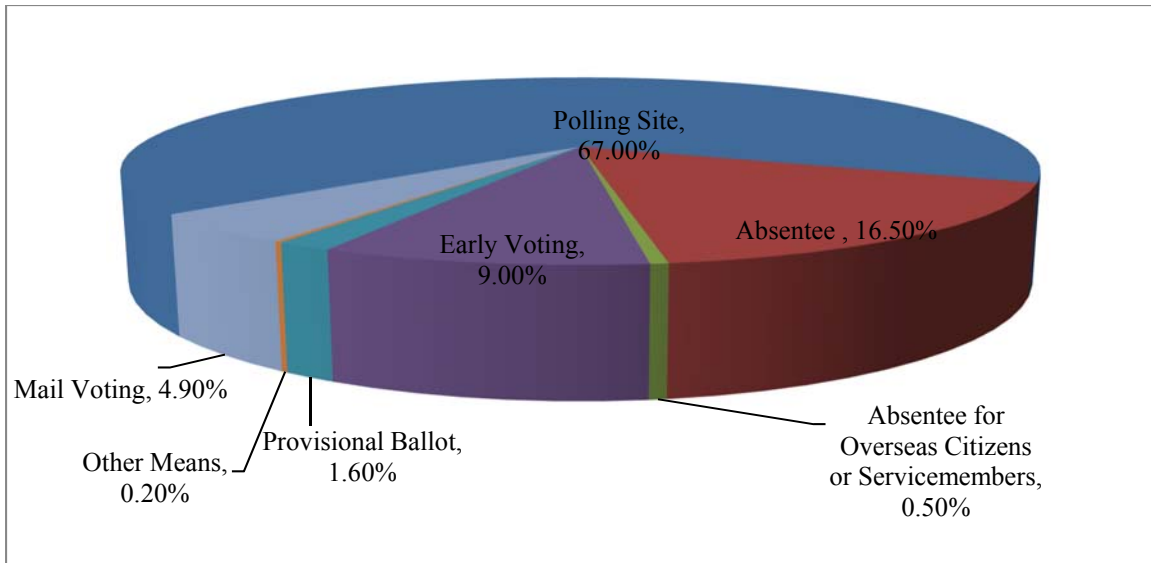


Figure 1. The 2012 Election Administration and Voting Survey: Methods of Ballots Cast.²⁰³

The 2012 federal election was the fifth time voters were permitted to cast a provisional ballot.²⁰⁴ Voters may receive a provisional ballot if they appear at polling places yet fail to have the required identification, or they may receive a provisional ballot if the election official challenges their eligibility due to questionable identification or jurisdictional concerns. In accordance with the 2002 Help America Vote Act, Section 302(a), such voters are permitted to cast provisional ballots, which are later tallied if officials determine the persons are eligible to vote (eligibility verification varies by state).²⁰⁵

Over 2.7 million provisional ballots were submitted in 2012.²⁰⁶ Of these, states reported 1.7 million provisional ballots were tallied and 180,000 were partially counted (for instance, some voters may have been found eligible for local elections, but not for federal elections). The more than 820,000 votes remaining were rejected for a variety of

²⁰³ Adapted from U.S. Census Bureau; Gambler; Election Assistance Commission, *The 2012 Election Administration and Voting Survey*, 1–4.

²⁰⁴ U.S. Census Bureau; Gambler; Election Assistance Commission, 1–4.

²⁰⁵ Election Assistance Commission, 12.

²⁰⁶ Election Assistance Commission, 1–4.1.

reasons including the voter not being registered, voting in the wrong jurisdiction, the voter had already voted, or the voter did not sign the ballot.

As can be seen in Figure 2, the 2016 presidential election saw an increase of 8,523,677 more voters than in 2012, with an overall participation of 140,114,502 voters.²⁰⁷ This increase represented a national turnout rate of 63 percent of the estimated citizen voting-age population.²⁰⁸

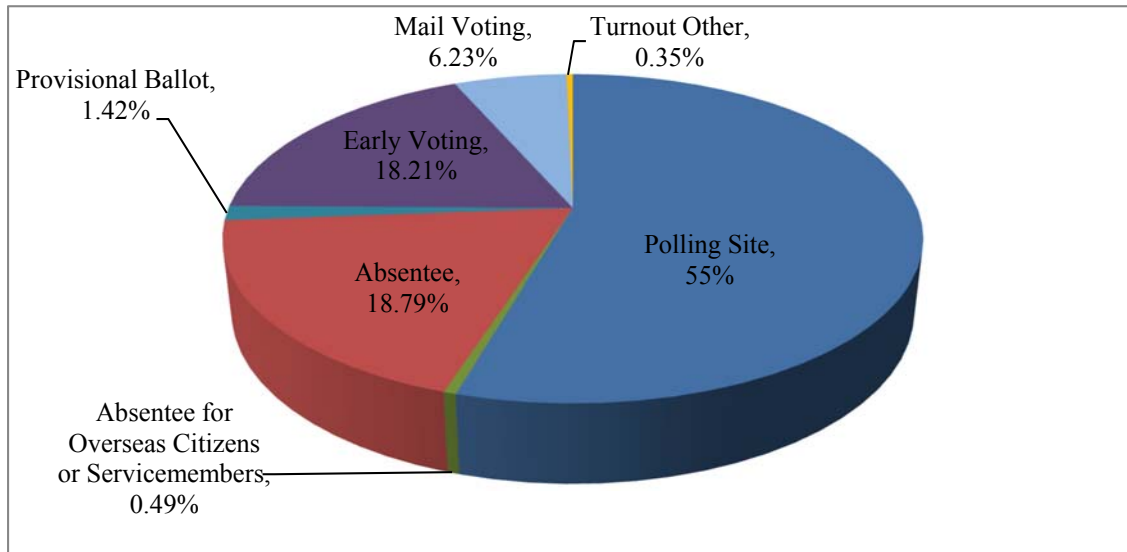


Figure 2. The 2016 Election Administration and Voting Survey: Methods of Ballots Cast.²⁰⁹

B. VOTER IDENTIFICATION LAWS

The Commission on Federal Election Reform (often referred to as the Carter-Baker Commission) issued a study in September 2005 recommending states adopt voter identification requirements, along with 86 other recommendations for enhancing access

²⁰⁷ Election Assistance Commission, *The Election Administration and Voting Survey: 2016 Comprehensive Report* (Washington, DC: Government Printing Office, 2017), executive summary, https://www.eac.gov/assets/1/6/2016_EAVS_Comprehensive_Report.pdf.

²⁰⁸ Election Assistance Commission, executive summary.

²⁰⁹ Adapted from Election Assistance Commission, 39.

and election integrity.²¹⁰ One recommendation was for states to verify citizenship of the applicant before registering the individual.²¹¹ Additionally, the Commission requested states not to charge voters who did not possess identification for new cards.²¹² Not all commission members agreed about verifying citizenship. Three of the commission members felt these practices were too rigid.²¹³ Still, the final report states:

The electoral system cannot inspire public confidence if no safeguard exists to deter or detect fraud or to confirm the identity of voters. Photo IDs currently are needed to board a plane, enter federal buildings, and cash a check. Voting is equally important.²¹⁴

In furtherance of the Commission recommendations, a bill passed the House of Representatives in 2006 that would have required proof of citizenship and photo identification to vote in federal elections; the first time proof of citizenship has ever been suggested in potential law.²¹⁵ It would have required those without identification on Election Day to vote provisionally with approved identification provided within 48 hours for the vote to be counted.²¹⁶ The 109th Senate did not address the bill before it adjourned.

Despite complaints of voter disenfranchisement due to voter identification requirements, the number of states requiring voter identification has tripled in the past two decades.²¹⁷ Advocates believe the requirement will prevent voter identification malfeasance and restore faith in U.S. elections.²¹⁸ Challengers fear the requirement restricts the right to vote and causes a cost burden, both for the states, as well as for

²¹⁰ Commission on Federal Election Reform, *Building Confidence in U.S. Elections*.

²¹¹ Commission on Federal Election Reform.

²¹² Commission on Federal Election Reform, executive summary.

²¹³ Fischer, Garrett, and Whitaker, *State Voter Identification Requirements*, 3.

²¹⁴ Commission on Federal Election Reform, *Building Confidence in U.S. Elections*, 18.

²¹⁵ Fischer, Garrett, and Whitaker, *State Voter Identification Requirements*, 3.

²¹⁶ Fischer, Garrett, and Whitaker, 3.

²¹⁷ Fischer, Garrett, and Whitaker.

²¹⁸ Amy Goldstein, "Democrats Predict Voter ID Problems: Laws May Create Election Day Turmoil," *Washington Post*, A1, November 3, 2006, <http://www.washingtonpost.com/wp-dyn/content/article/2006/11/02/AR2006110201897.html>.

voters.²¹⁹ Voter suppression because of voter identification requirements has been the subject of debate for decades.

Opponents believe costs and logistical challenges impede an eligible voter to gain identification, and therefore, disenfranchise eligible voters. It is reasonable to believe it may be more difficult for citizens who are elderly, invalid, or poor to gain identification; however, the severity of the burden is not clear.²²⁰

The first Supreme Court case regarding state voter identification laws was *Purcell v. Gonzalez*, 549 U.S. 1 (2006).²²¹ The Court did not rule on the merits, but instead suggested the lower courts refrain from action shortly before Election Day.²²² Additionally, the Supreme Court opined that real or perceived voter fraud might also cause voter suppression.²²³

In the *Crawford v. Marion County (Indiana) Election Board* Decision, Justice Stevens, a liberal Supreme Court judge who retired in 2010, articulated his belief in the use of photo identification and voter confidence as “safeguarding voter confidence.”²²⁴ In this case, the Supreme Court upheld the decision of District Court Judge Barker who provided opinion that voters were not unduly burdened by the new state identification law in Indiana. Judge Barker granted the defendants’ motion for summary judgement.

The Supreme Court has not always been consistent when dealing with the topic of voter identification laws. When North Carolina requested the Supreme Court consider overturning an appeals courts’ decision that prevented the state from enforcing a voter identification law, the Court denied the request.²²⁵ Similarly, in 2017, when confronted

²¹⁹ National Conference of State Legislatures, “Voter Identification Requirements.”

²²⁰ National Conference of State Legislatures.

²²¹ Tonkaji, *Tonkaji’s Election Law in a Nutshell*, loc. 2378.

²²² Tonkaji, loc. 2378.

²²³ Tonkaji, loc. 2378.

²²⁴ *Crawford v. Marion County Election Board*, (Nos. 07-21 and 07-25) 472 F. 3d 949 (2008), <https://www.law.cornell.edu/supct/html/07-21.ZO.html>.

²²⁵ Ariane de Vogue and Dan Berman, “Supreme Court Won’t Reinstate North Carolina Voter ID Law,” CNN, August 31, 2016, <https://www.cnn.com/2016/08/31/politics/supreme-court-north-carolina-voter-id/index.html>.

with a case in Texas, the Supreme Court upheld the decision of the lower court that voter identification laws were found to be discriminatory.²²⁶

As of August 2017, 34 states have laws requesting or requiring a voter present identification at the polling site before receiving a ballot.²²⁷ Although identification is required, 19 of these states permit voting with an affidavit in lieu of identification. Table 1 demonstrates which states require identification and which do not.

Table 1. Voter ID Laws as of November 2017.²²⁸

Strict Photo	Strict Non-Photo	Non-Strict Photo	Non-Strict Photo	No ID Required
Georgia Indiana Kansas Mississippi Tennessee Virginia Wisconsin	Arizona North Dakota Ohio	Arkansas Alabama Florida Hawaii Idaho Louisiana Michigan Rhode Island South Dakota Texas	Alaska Colorado Connecticut Delaware Kentucky Missouri Montana New Hampshire Oklahoma South Carolina Utah Washington	California District of Columbia Illinois Iowa* Maine Maryland Massachusetts Minnesota Nebraska New Jersey New Mexico Nevada New York North Carolina Oregon Pennsylvania Vermont West Virginia* Wyoming

* West Virginia and Iowa have Voter ID Laws that will go into effect in 2018 and 2019, respectively.

²²⁶ Richard Wolf, “Supreme Court Won’t Rescue Voter ID Law,” USA Today, January 23, 2017, <https://www.usatoday.com/story/news/politics/2017/01/23/supreme-court-texas-voter-id-law/96942738/>.

²²⁷ Fischer, Garrett, and Whitaker, *State Voter Identification Requirements*; National Conference of State Legislatures, “Voter Identification Requirements.”

²²⁸ Adapted from National Conference of State Legislatures. Note: The information contained in Table 1 is reflective of laws in effect as of November 2017. Additionally, it does not reflect variations in laws that permit provisional ballots for those without identification, if the voter provides identification within a set amount of time. For law specifics, see <http://www.ncsl.org/research/elections-and-campaigns/voter-id.aspx> or go to each state’s election website.

Ten states strictly enforce the identification requirements. Texas enacted strict voter identification laws, yet they were quickly contested in state court.²²⁹ A federal judge ruled the Texas law discriminates against minority voters.²³⁰ As a result, Texas applies non-strict photo identification rules. Pennsylvania and North Carolina have enacted voter identification laws, but courts in each state have struck them down.²³¹ West Virginia passed a voter ID law that will be implemented in 2018; Iowa passed one that will be implemented in 2019.

Fourteen states permit photo or non-photo identification, for example a utility or bank statement with name and address for verification of eligibility.²³² When a voter fails to provide identification in a state requiring such identification, the state generally permits an alternative. In non-strict states, including Colorado, Florida, Montana, Oklahoma, Rhode Island, Utah, and Vermont, provisional ballots are permitted and later verified by some method for registration. Some non-strict states may allow voters to cast a ballot after signing an affidavit they are citizens and over 18. Alternatively, a poll worker may vouch for the eligibility of the voter.²³³ In stricter states, voters without identification are permitted to vote on a provisional ballot; however, the voter must with appropriate identification before the ballot is counted.²³⁴

Common types of identification permitted for voter verification are driver's licenses or non-driver cards issued by that state.²³⁵ Some states require that the identification reflect the voter's current address. Sixteen states permit tribal identifications. If voters provide an acceptable identification, they may still be questioned if a name or address does not match. First-time voters who did not register in person and

²²⁹ National Conference of State Legislatures.

²³⁰ National Conference of State Legislatures.

²³¹ National Conference of State Legislatures.

²³² National Conference of State Legislatures.

²³³ National Conference of State Legislatures.

²³⁴ National Conference of State Legislatures.

²³⁵ National Conference of State Legislatures.

have not already provided proof of identification are required by federal law to show some form of identification.²³⁶

The successes and pitfalls of voter identification laws are hard to determine. Demonstrating whether voter identification prevents deception or whether identification laws are unduly burdensome is difficult. The controversy of voter identification requirements will likely to be a continued hot topic for years to come.²³⁷

C. STATE VOTER REGISTRATION SURVEY

Between October and December 2017, 51 surveys were sent to each state and the District of Columbia senior election official(s).²³⁸ The survey consisted of seven election process questions with multiple-choice answers, as well as areas for the election officials to provide additional details relating to the state's procedures. Out of 51 requests, 24 states responded: Delaware, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Louisiana, Massachusetts, Maryland, Mississippi, Montana, North Dakota, Nebraska, New Jersey, New York, Rhode Island, South Carolina, Utah, Virginia, Washington, Wisconsin, West Virginia, and Wyoming. Twenty-two states completed the form and provided the response via email; Maryland requested to respond to the questions by phone, and North Dakota provided a written response in the body of an email as the state has no voter registration system and felt an email was a more appropriate response. Each response and statistical reporting is available in Appendix B.

- Question 1: What documents are required to show proof of in terms of age and residency to become a registered voter?"

The responder had the choice of selecting from driver's license, birth certificate, no identification needed, naturalization certificate, or other state approved documents. Respondents could choose one or as many as were appropriate. Fifteen out of the 24

²³⁶ "Voter ID Requirements," USA.gov, accessed December 3, 2017, www.usa.gov/voter-id.

²³⁷ Fischer, Garrett, and Whitaker, *State Voter Identification Requirements*.

²³⁸ Note: names and addresses were gained from the National Association of State Election Directors, "National Association of State Election Directors Roster."

states that responded declared no proof of identification was required at the time of registration. Six of the states accepted driver's licenses as proof of eligibility.

- Question 2: How does the state verify citizenship for voting?

Out of the 24 respondents, 18 states responded they rely on affirmation only for citizenship and trust the voter to be truthful. This reliance appears to be typical for all states and is indicative of the National Voter Registration Act form. In Iowa, citizenship is not verified except by oath when a voter registers. North Dakota utilizes driver's licenses, specifically relying on their Real ID Act identification that differentiates between citizen and non-citizen. Utah verifies the individual's social security number along with a driver's license; social security numbers are issued to individuals not eligible to vote, however, so other ways would be needed to verify citizenship.

- Question 3: How often does your state perform statewide voter roll maintenance (address changed, name changes, additions and verifications)?

Twenty-one states out of the 24 responders stated they update their voter registration list continuously. In Iowa, the frequency of maintenance depends on the type of maintenance needed (see Iowa Code 48A). In Louisiana, election officials perform an annual screening of the rolls. Louisiana updates the voter rolls when notifications are provided by the voter, by a piece of returned mail, by notice of registration in another state, and monthly updates for death and felon information. Discussed in detail in the Voter Registration section, North Dakota is the only state that does not maintain a voter registration list.

- Question 4: What resources does your state use for managing the statewide voter roll?

Twenty-one out of 24 states that responded state they use mail out letters or postcards, the most prevalent method of the various resources listed. Nine states out of the responding 24 states use the Interstate Voter Registration Crosscheck Program (Crosscheck) to help keep their voter rolls updated and nine states use Electronic

Registration Information Center (ERIC). In comparison with actual percentages for overall states, 58 percent of the states utilize Crosscheck and 41 percent use ERIC. Figure 3 depicts the most common resources for managing voter rolls.

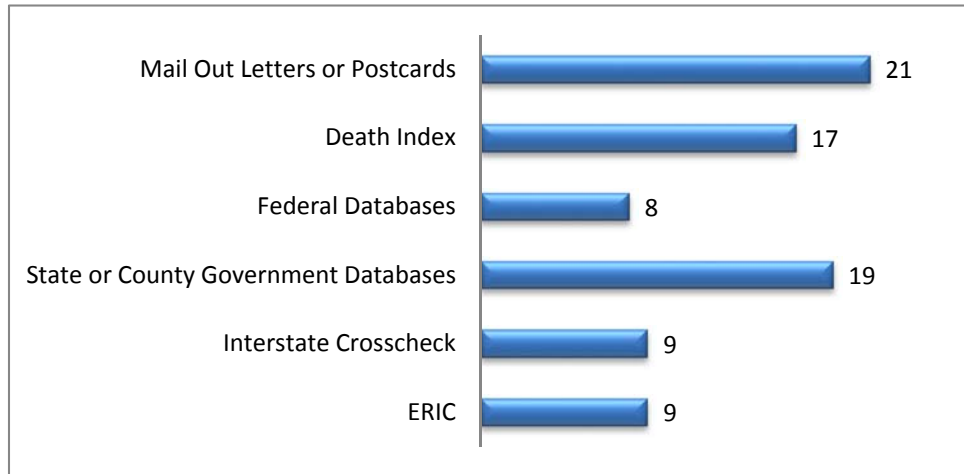


Figure 3. State Voter Registration Survey: Resources Used to Manage Voter Rolls.

Massachusetts responded by stating each city and town conducts an annual street listing. Election officials mail a census card to every household. The results are used to update the voter registration lists. Voters who fail to return the street listing are sent a confirmation notice and then placed on the inactive voter list. The State of Kansas uses jury list notifications, the state Department of Vital Statistics and Department of Corrections databases, and the National Change of Address for registry maintenance. Rhode Island utilizes duplicate reports from their voter registration database and receives monthly reports from the Rhode Island Department of Health death records and the Rhode Island Adult Correction Institution felon records.

- Question 5: What occurs when a non-citizen, an individual living in a different state, or otherwise ineligible person is detected and confirmed during voter registration or maintenance?

Nineteen of the 24 responding states contact the individual to allow the individual the opportunity to confirm or contest the information. Eight states flag the individual in

their listing and 13 of the states remove the individual from the list, generally upon confirmation from the individual or if the individual fails to respond.

Massachusetts stated that this question was difficult to respond to as it depended on the situation. The only way voters on the Massachusetts registration list are removed is if the voters confirm their ineligibility in writing. If the voters have moved to another state, the voters need to confirm in writing before being removed.

In Idaho, once verification is complete on any ineligible person on its voter roster, the information is turned over to the county prosecutor for potential investigation. In Iowa, non-citizen cases are handled differently from non-residency cases; generally, the voter is made inactive. Georgia responded that different reactions can happen, but some form of hearing or investigation is common. In Rhode Island, the local Board of Canvassers examines the issue and may contact the voter. If the review concludes the individuals do not belong on the list, they are removed. Criminal cases may be forwarded to the police for investigation. If Wyoming officials receive out-of-state cancellations, the voter is inactivated on their rolls.

- Question 6: If your state offers mail-in registration and mail-in voting, does your state check identification and at what point?

Thirteen of the 24 states that offer mail-in registration and mail-in voting check ID prior to the vote being counted. Eight of the states require the voter to submit a copy of the ID with the registration form. Four states have the voters submit a copy of their ID with their ballot. In New Jersey and West Virginia, no voter identification is needed for mail-in registration and voting.

Several states use driver license numbers and portions of the social security number to verify identity, such as Idaho, Rhode Island, and Iowa. These methods do not verify citizenship eligibility, however, as many temporary workers, students, and other non-citizens can gain these identification cards as well.

Massachusetts responded that people applying by mail must include their driver's license number, and if they had none, they were to supply the last four digits of their

social security numbers. These identification numbers would be verified. If they did not provide the numbers, their record would be flagged to show identification the first time they vote. In Louisiana, the voters are required to vote in person the first time to provide photo identification or a voter affidavit. First time registrants in New York State must have their identifications verified before voting.

- Question 7: Who prosecutes voter fraud in your state?

According to their responses, as shown in Table 2, five states handle it at the county prosecution level only: Hawaii, Illinois, Washington, Wisconsin, and Wyoming. Delaware only handles it at the state level, and West Virginia handles it at the state or federal level. Seven states prosecute at the county and state levels and six states will consider prosecution at all three levels: county, state, and federal.

Table 2. State Voter Registration Survey: Who Prosecutes Voter Fraud in Your State?

State	County	State	Federal
DE		✓	
GA ²³⁹	✓	✓	✓
HI	✓		
IA	✓	✓	
ID	✓		✓
IL	✓		
KS	✓	✓	✓
LA ²⁴⁰	✓	✓	✓
MA ²⁴¹		✓	✓
MD	✓	✓	✓
MS	✓	✓	✓
MT	✓	✓	✓

²³⁹ Georgia elections are generally regulated by the State Board of Elections (SEB). The SEB is the usual source of sanctions (civil penalties only) for election violations, but violations may also be prosecuted in county and federal court. It is rare for criminal prosecutions to occur, but it happens in some cases.

²⁴⁰ In Louisiana, the County District Attorney (DA) generally prosecutes voter fraud. The DA may recuse to the Attorney General. If the election is federal, the person may be federally prosecuted.

²⁴¹ In Massachusetts, the state Attorney General, the DA, or the U.S. Attorney could prosecute violations of election law.

State	County	State	Federal
ND	✓	✓	
NE	✓	✓	✓
NJ	✓	✓	
NY	✓	✓	
RI ²⁴²	✓	✓	✓
SC	✓	✓	
UT	✓	✓	
VA	✓	✓	
WA	✓		
WI	✓		
WV		✓	✓
WY	✓		

20 16 9

²⁴² In Rhode Island, investigations are conducted by local Boards of Canvassers (Board of Elections) and any case of voter fraud is handled by the state police and Attorney General.

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V. VERIFICATION CHALLENGES

The first half of the thesis documented the evidence and implications of voter fraud, related federal statutes, and predominant policies and practices of the states. It also took an in-depth look at the responses to the voter registration survey. Although not all states replied, nearly half responded with valuable information. Additionally, the previous chapter explained the massive infrastructure of the U.S. election system and described the various policies and practices in place.

Chapter V lists obvious problems in available statistics and lists common methods for verifying voter identity and eligibility. It exposes vulnerabilities in each process and sets a foundation for the potential of ineligible individuals being listed on voter registration lists and the subsequent opportunity for fraudulent voting to aid in answering research question number one. By knowing and understanding the strengths and limitations of available data and verification practices, research question number two is also answered by establishing that gaps exist in current mythologies.

A. U.S. CENSUS BUREAU REFLECTS FEWER VOTERS THAN THOSE REGISTERED

It would be impossible to have a detailed understanding of the election system and potential vulnerabilities without understanding available statistics. Election statistics help determine how many voters the nation has, how many citizens are eligible to vote, and how many individuals reside in a particular jurisdiction. Election data matters to social scientists, economists, legislators, jurists, politicians, and election officials. Having accurate data should also matter to the American public, as numbers help analyze fairness and accuracy.

John Shott, chair for the Judiciary Committee of the West Virginia House of Delegates, expressed concern over voter fraud when editors of *Canvass* interviewed him on May 6, 2016. “While we don’t have many reported cases of voter fraud,” he explained, “some of our statistics indicated that the number of registered voters on the

rolls exceeded the Census numbers for that community. We felt that a voter ID requirement would be helpful in rebuilding that confidence and trust.”²⁴³

West Virginia is not the only state whose registrations reportedly exceed census numbers. Over the last 20 years, counties in Ohio, Missouri, and Colorado, amongst other states, have reported more registered voters in an area than the estimated census voting-age population.²⁴⁴ This number may simply be a result of inaccurate registration lists or errors in estimations. The number of discrepancies, however, may be an indication of other types of liabilities.

Logically, less people should be registered to vote in a given area than the number of residents for that same area. For example, it is an obvious concern to have statistics representing more registered voters than the citizen voting-age population (CVAP) in a given county, let alone more than the voting-age population, which includes individuals not eligible to vote.²⁴⁵ According to Election Data Services, which has collected extensive data of election statistics and census demographics for nearly three decades, 241 counties in 2016 registered more than 100 percent of the voting-age population in that county.²⁴⁶ In the same year, more than 100 percent of the CVAP in 351 counties had registered.²⁴⁷

The EAC produces its election administration and voting survey every two years. This survey provides a holistic picture of what is going on with U.S. elections and breaks elections down into various categories to include by state, by voting methods (polling site, mail-voting, provisional, etc.), and voter turnout. EAC’s 2016 election

²⁴³ John Shott, “NCSL’s the Canvass: May 2016,” National Conference of State Legislatures, accessed November 24, 2017, <https://www.ncsl.org/research/elections-and-campaigns/the-canvass-may-2016.aspx>.

²⁴⁴ Aaron Gardener, “Colorado Counties Have More Voters than People,” Media Trackers, September 4, 2012, <http://mediatrackers.org/2012/09/04/colorado-counties-have-more-voters-than-people/>.

²⁴⁵ Note: citizen voting-age population and voting-age populations are terms used by the U.S. Census Bureau and are defined in “Redistricting Data: Voting Age Population by Citizenship and Race (CVAP),” U.S. Census Bureau, accessed December 2, 2017, https://www.census.gov/rdo/data/voting_age_population_by_citizenship_and_race_cvap.html.

²⁴⁶ Kimball Brace, “The Election Process: From a Data Prospective” (presentation, Election Data Services, Inc., 2017), <https://www.electiondataservices.com/wp-content/uploads/2017/09/BracePresentation2PenseCommAmended.pdf>.

²⁴⁷ Brace.

administration and voting survey reveals that nine states registered more voters than their total CVAP for that same year as determined by the U.S. Census Bureau.²⁴⁸ Some states repeatedly have more registrations than CVAP estimates. See Table 3.

Table 3. 2016 Election Administration and Voting Survey.²⁴⁹

State	Citizen Voting-Age Population (CVAP)	Reported Registrations	Reported Registration % of CVAP
Alaska	523,747	587,303	112.13
California	24,280,349	24,486,638	100.85
Colorado	3,750,953	3,840,303	102.38
D.C.	485,116	493,287	101.68
Indiana	4,801,113	4,839,038	100.79
Kentucky	3,297,108	3,306,120	100.27
Maine	1,048,274	1,065,100	101.61
Michigan	7,380,136	7,514,055	101.81
New York	13,531,404	16,200,892	119.73
Totals	59,098,200	62,332,736	Diff: 3,234,536

At first glance, Table 3 demonstrates more voters were registered in states than residing in those states, which may be because states keep inactive voters who have moved on their voting lists. In calculating the differences, it appears three million more voters are registered than should reasonably be in those states. Could these apparent discrepancies permit the opportunity for fraud to occur? If so, keeping accurate and clean voter lists could mitigate a gap.

As election expert Charles Stewart III states, “The geographic churn in the American adult population creates a record-keeping challenge for the system of voter registration in the United States.”²⁵⁰ If discrepancies allow the chance for fraud, then

²⁴⁸ Election Assistance Commission, *The Election Administration and Voting Survey: 2016 Comprehensive Report*, 55–66.

²⁴⁹ Adapted from Election Assistance Commission, 55–66.

²⁵⁰ Doug Chapin, “Charles Stewart on “Mobility and Registration,”” November 9, 2017, Election Academy, <http://editions.lib.umn.edu/electionacademy/2017/11/09/charles-stewart-on-mobility-and-voter-registration/>.

finding a method to shore up voter lists and efficiently manage them is critical in preventing fraud.

It is accurate to say the Census Bureau's annual figures are estimates only; meaning, they are not precise. The Census Bureau estimates voting-age populations and citizen voting-age populations, which are two different yet important numbers.²⁵¹ Voting-age populations include all non-citizen and citizen individuals who are 18 years of age and older residing in a specific jurisdiction.²⁵²

Citizen voting-age population estimates are determined through American community surveys (ACSs) in which individuals are asked whether they are U.S. citizens.²⁵³ This question is important as it is currently the only method for learning the numbers of U.S. citizens in a given area. Using surveys to determine the numbers of citizens is a poor way of collecting this data. Not all solicited individuals would choose to complete a lengthy survey, but those who do may not be truthful in fear of retribution for any illegal status. Another issue is that the Census Bureau's estimates of voting-age and citizen voting-age populations do not account for the approximate 221,000 armed forces members and their families serving overseas.²⁵⁴

Gaining accurate numbers of eligible voters and the number who actually participated in an election is impossible with current methods. Numbers are important, however, as they play into many aspects of electoral integrity. These numbers include identifying how many eligible citizens are voting or not, which can help with understanding voter participation and turnout and allow focus on low-participating jurisdictions to promote citizenry voting. Likewise, learning that more voters are registered in a particular area than appears in census information is an indicator of

²⁵¹ U.S. Census Bureau, "Redistricting Data."

²⁵² U.S. Census Bureau.

²⁵³ U.S. Census Bureau, "American Community Survey Information Guide," 7, accessed December 3, 2017, <https://www.census.gov/programs-surveys/acs/about/information-guide.html>.

²⁵⁴ Brace, "The Election Process: From a Data Prospective"; "Monthly Population Estimates," U.S. Census Bureau, accessed December 2, 2017, <https://www.census.gov/data/tables/2016/demo/popest/nation-total.html>.

potential discrepancies. If the numbers were more reliable, negating or substantiating fraud might be feasible.

Incorporating strong verification processes helps build trust and can help with data accuracy. Voter numbers play into electoral re-districting, where susceptibility to fraud is a concern. Inaccurate numbers can lead to inaccurately apportioned districts, which may obscure voter fraud.

To further the point, the Tables 4–6 present leading source data on 2016 voters.

Table 4. Election Assistance Commission Estimates (in Thousands).²⁵⁵

Year	U.S. Population	Non-Citizen Population	Voter-Age Population	Citizen Voters Population	Registered Voters	Voter Participation
2016				222,469	214,109	140,115

Table 5. Census Bureau Estimates (in Thousands).²⁵⁶

Year	U.S. Population	Non-Citizen Population	Voter-Age Population	Citizen Voters Population	Registered Voters	Voter Participation
2016	323,128	21,443	245,502	227,019	157,596	137,537

²⁵⁵ Adapted from Election Assistance Commission, *The Election Administration and Voting Survey: 2016 Comprehensive Report*, 21, 39.

²⁵⁶ Adapted from U.S. Census Bureau, “Monthly Population Estimates”; “Reported Voting and Registration of the Citizen Voting-Age Population: November 2016,” U.S. Census Bureau, accessed December 2, 2017, <https://www.census.gov/data/tables/time-series/demo/voting-and-registration/p20-580.html>; “Electorate Profiles: Selected Characteristics of the Citizen, Voting-Age Population,” U.S. Census Bureau, accessed December 2, 2017, <https://www.census.gov/data/tables/time-series/demo/voting-and-registration/electorate-profiles-2016.html>.

Table 6. United States Election Project Estimates (in Thousands).²⁵⁷

Year	U.S. Population	Non-Citizen Population	Voter-Age Population	Citizen Voters Population	Registered Voters	Voter Participation
2016				231,000		139,062

What amount of variation is risk-tolerable? Having the estimates vary by millions is problematic and creates doubt in system integrity.

Unless methodologies are refined, the challenges of gathering precise statistics will only grow due to expected U.S. population growth. Currently, the U.S. population now exceeds 326 million. This nation’s population has doubled in the past 50 years. According to the U.S. Census Bureau, the population could rise another 132 million to 458 million by 2050.²⁵⁸ The annual U.S. immigrant intake is expected to nearly double in the next 50 years.²⁵⁹ Verifying identities and voter eligibility may become more and more difficult unless stakeholders determine ways to gather accurate numbers and reliable verification methods now.²⁶⁰ Currently, no dependable way exists to discern the number of citizens residing in any given U.S. jurisdiction who are eligible to vote in a U.S. election. According to the EAC, “There has to be a process for ensuring that only eligible individuals vote and that each person only votes once.”²⁶¹

By having accurate statistics, officials and researchers can categorize and find incongruities. Researchers could review jurisdictions where eligible voters are not voting to determine influences and solutions. Having precise data will allow assessments that can be used to discern whether U.S. laws and policies have enabled all eligible citizens to

²⁵⁷ Adapted from Michael McDonald, “America Goes to the Polls: A Report on Voter Turnout in the 2016 Election,” Non-Profit Vote, 6, March 24, 2017, <http://www.nonprofitvote.org/america-goes-to-the-polls-2016/>.

²⁵⁸ Jennifer M. Ortman and Christine E. Guarneri, *United States Population Projections: 2000 to 2050* (Washington, DC: U.S. Census Bureau, Government Printing Office, 2009), 2, <http://www.census.gov/population/projections/files/analytical-document09.pdf>.

²⁵⁹ Ortman and Guarneri.

²⁶⁰ “U.S. and World Population Clock,” U.S. Census Bureau, accessed December 2, 2017, <https://www.census.gov/popclock/>.

²⁶¹ Election Assistance Commission, *The Election Administration and Voting Survey: 2016 Comprehensive Report*, 37.

vote, and prevented ineligible individuals from voting. Ultimately, accurate election and voter statistics help measure the strength of democracy in the United States.

B. APPREHENSIONS ABOUT VOTER IDENTIFICATION LAWS

As with every constitutional right, the right for a citizen to vote is subject to reasonable expectations for verifying eligibility for that right.²⁶² Unfortunately, state legislation, courts, and even the Supreme Court justices do not agree what reasonable means when it comes to proving eligibility. Nor do legislatures and courts agree what might be construed as excessively burdensome to the point that eligible voters are prevented from voting (voter suppression).²⁶³ With these challenges, gaining consensus and establishing best and fair practices for verifying eligibility is challenging.

Many states have strengthened their voter identification requirements in the past few years in attempt to curb fraud. Two-thirds of states require a voter present acceptable identification before being voting at the polls.²⁶⁴ Included in a decision regarding adding additional proof-of-citizenship requirements on national mail voter registration forms, the EAC shared comments from responders stating that adding the requirements “would limit and suppress the vote of certain classes of disadvantaged Americans, would make the voting process more restrictive, would discourage legitimate voters from voting, and were otherwise unnecessary.”²⁶⁵

Those who oppose identification laws say they disenfranchise minorities and alienate the poor.²⁶⁶ In 2015, the University of California, San Diego found “strict photo identification laws have a differentially negative impact on the turnout of Hispanics, Blacks, and mixed-race Americans in primaries and general elections.”²⁶⁷ Opponents believe identification cards are costly, require taking time off work, and are a burden for

²⁶² Election Assistance Commission.

²⁶³ Doug Linder, “Exploring Constitutional Conflicts: Equal Protection and the Right to Vote,” 2016, <http://law2.umkc.edu/faculty/projects/ftrials/conlaw/righttovote.html>.

²⁶⁴ National Conference of State Legislatures, “Voter Identification Requirements|Voter ID Laws.”

²⁶⁵ Miller, *Memorandum of Decision*, 10.

²⁶⁶ Barry and Newman, “Could Fingerprinting Finish the Debate Over Voter ID Laws?”

²⁶⁷ Newkirk, “How Voter ID Laws Discriminate.”

traveling to a county or state government office, which causes inconvenience.²⁶⁸ Non-supporters have described these laws as “Jim Crow 2.0” voter suppression polices.²⁶⁹ These groups suggest that photo identification laws may cause more harm as much as they do good.²⁷⁰

Paul Gronke, political science expert, writes, “the requirement for ID alone shows a weak but negative association with voter confidence, while the additional photo ID requirement displays a mildly positive relationship.”²⁷¹ Similarly, Steven Levitsky and Daniel Ziblatt, authors of *How Democracies Die*, find that even a modest effect of voter suppression due to strict voter identification laws may negatively impact the outcome of elections.²⁷² Their research concedes that most studies find the effects appear to be minor. Still, suppression of eligible voters is antidemocratic.²⁷³

Much of the debate on voter identification centers on preventing fraud while protecting voter rights. Public opinion surveys have regularly found support for voter identification requirements at the time of voting.²⁷⁴ Additionally, in a PEW Research Center survey, participants were asked if they had the required identification. Ninety-eight percent said they did.²⁷⁵ In other studies, researchers found a wider range of 80–95 percent of survey participants had the required identification.²⁷⁶

²⁶⁸ Newkirk.

²⁶⁹ Todd Donovan and Shaun Bowler, “Strict Voter ID Laws Make Republican Voters More Confident about Elections,” *USAPP American Politics and Policy* (blog), February 17, 2016, <http://blogs.lse.ac.uk/usappblog/2016/02/17/strict-voter-id-laws-make-republican-voters-more-confident-about-elections/>.

²⁷⁰ Zoltan Hajnal, Nazita Lajevardi, and Lindsay Nielson, *Voter Identification Laws and the Suppression of Minority Votes* (San Diego: UC San Diego, 2017), 2. <http://pages.ucsd.edu/~zhajnal/page5/documents/voterIDhajnaletal.pdf>.

²⁷¹ Gronke, “Voter Confidence as a Metric of Election Performance,” 262.

²⁷² Steve Levitsky and Daniel Ziblatt, *How Democracies Die* (New York: Crown Publishing Group, 2018), 185.

²⁷³ Levitsky and Ziblatt, 186.

²⁷⁴ Fischer, Garrett, and Whitaker, *State Voter Identification Requirements*, 4.

²⁷⁵ Fischer, Garrett, and Whitaker.

²⁷⁶ Fischer, Garrett, and Whitaker.

The following bullets list typical voter registration requirements to prove eligibility. By submitting one of these documents during voter registration, a voter would meet the usual state voter registration requirement:²⁷⁷ Only *one* of the listed documents is required for voter registration:

- Current or valid photo ID
- Current utility bill
- Bank statement
- Government check
- Paycheck
- Other government document that shows your name and address
- Birth certificate
- Native American tribal document
- Other proof of United States citizenship (birth certificate, naturalization certificate, or U.S. passports)²⁷⁸

Charles Stewart III, distinguished professor at the Massachusetts Institute of Technology, conducted a survey in the days following the 2012 presidential election via Yougov on the internet.²⁷⁹ He surveyed 200 registered voters via internet in each of the 50 states and District of Columbia for a total sample size of 10,200.²⁸⁰ This survey focused on questions surrounding the voter experience to include voter identification requirements.²⁸¹ Stewart found states appear to inequitably implement voter

²⁷⁷ “Voter ID Laws,” Vote.org, accessed October 20, 2016, <https://www.vote.org/voter-id-laws/>.

²⁷⁸ Vote.org.

²⁷⁹ Charles Stewart III, *2012 Survey of the Performance of American Elections* (Cambridge: MA: The Massachusetts Institute of Technology, 2013) executive summary, https://elections.delaware.gov/pdfs/SP_AE_2012.pdf.

²⁸⁰ Stewart, executive summary.

²⁸¹ Stewart.

identification laws, which is problematic and might lead to discriminatory practices.²⁸² “Black and Hispanic voters were asked to show “picture ID” more often than White voters.”²⁸³ However, when asked about election reform, 71 percent of the participants supported photo identification requirements when voting.²⁸⁴

Stewart also conducted another survey at mid-terms in 2014. In each of the 2012 and 2014 surveys, he asked the participants about the identification they possessed. The respondents most commonly held birth certificates and driver’s licenses, as shown in Table 7.

Table 7. Possession of Identification Cards.

Identification	2012²⁸⁵	2014²⁸⁶
Official Copy of a Birth Certificate	89%	84%
Driver’s License	91%	93%
U.S. Passport	41%	46%
Other form of Government ID	16%	15%
Photo ID issued by Out-of-State Government	11%	7%
In-state Public University ID Card	10%	9%
Voter Registration Card	62%	57%

From this study, it appears that most voters possess the required identification needed at the time of voting. Like other areas of this study, more empirical information is needed to understand any negative influences of voter identification laws better. However, if disparate implementation across jurisdictions allows certain groups to be asked for identification, while others are not, then this request creates unfair practices that can disenfranchise voters.

²⁸² Stewart.

²⁸³ Stewart.

²⁸⁴ Stuart, 48.

²⁸⁵ Stuart, 51.

²⁸⁶ Charles Stewart III, *2014 Survey of the Performance of American Elections* (Cambridge, MA: The Massachusetts Institute of Technology, 2015), Appendix 3, https://elections.delaware.gov/pdfs/SPAE_2014.pdf.

C. CHALLENGES WITH VOTER IDENTIFICATION

Verifying identity at the polling place on Election Day can be a challenge.²⁸⁷ Verifying authenticity of documents by the polling or registration official is an unrealistic expectation, as most of these individuals are volunteers and not experts in detecting fraudulent documents. All states requiring voter identification except North Dakota accept non-photo identification, such as birth certificates, social security cards, bank statements, and utility bills.

Presenting a utility bill for showing jurisdiction is fine however, using a utility bill or social security card, amongst other permitted documents, as a means to demonstrate proof of voter eligibility should stop, as these documents are available to most individuals present within the nation and fictitious documents are easily created.²⁸⁸ These documents do not really verify voter eligibility. Most individuals present within the United States are legally able to gain these forms of identification, including non-citizens. Driver's licenses and social security numbers are issued to citizens and often to non-citizens as well, including those legally present for employment or school.

D. VERIFYING U.S. CITIZENSHIP

In accordance with federal and state laws, only U.S. citizens may vote in general elections for national leaders. Advocates of citizenship verification state it is necessary to ensure integrity in the voting process to avoid fraudulent non-citizen voting.²⁸⁹ "Critics say requiring proof of citizenship, such as a birth certificate or passport, to register to vote disenfranchises college students, low-income people, and minorities."²⁹⁰ Like voter

²⁸⁷ USA.gov, "Voter ID Requirements."

²⁸⁸ Social Security Administration, *Social Security Cards for Non-Citizens* (Washington, DC: Government Printing Office, 2016), <https://www.ssa.gov/pubs/EN-05-10096.pdf>.

²⁸⁹ Ana Henderson, "Web Special: Citizenship Verification, Obstacle to Voter Registration and Participation," *New Political Spaces* 19, no. 1 (2012): 122, <http://www.reimaginerpe.org/book/export/html/6967>; Morley, "Dismantling the Unitary Electoral System?"

²⁹⁰ Ariella Phillips, "Head of Trump's Voter Fraud Panel Sought More Flexibility for States to Impose Voter ID Laws," *Washington Examiner*, October 6, 2017, <http://www.washingtonexaminer.com/head-of-trumps-voter-fraud-panel-sought-more-flexibility-for-states-to-impose-voter-id-laws/article/2636796>.

identification laws, requiring proof of citizenship for elections is another hotly debated topic.

Neither law nor procedure requires voters to show proof of U.S. citizenship to register or to vote in national elections. It appears that states do not systematically verify citizenship from state or federal databases, either. Frankly, the states do not have the tools they need to verify citizenship. Substantial gaps exist between what the federal law requires (a voter in a national election must be a U.S. citizen) and verification that the law is being met.

Registering to vote does not require proof of U.S. citizenship.²⁹¹ According to the EAC's interpretation of the National Voter Registration Act (Title 42 § 1973gg-6(a)(1)), "Absent any evidence in the state's possession that contradicts the specific information on the voter registration application, to which the applicant has attested under penalty of perjury, the registration official should accept the sworn affirmation as sufficient proof of the applicant's eligibility and register that applicant to vote."²⁹² Little support is available concerning actual verification of eligibility with the exception of a good faith statement by the registering voters affirming they are eligible.

It might be easier if researchers and officials had reliable data on the number of citizens and non-citizens who reside or are currently present in the United States. The numbers can be crudely estimated, however. The U.S. Census Bureau estimates the U.S. population to be just over 326 million at the time of this writing. Of the 323,127,515 population of December 2016, 25.5 percent or 82,397,516 were 19 and under (meaning most were ineligible to vote by age; the Census Bureau did not show the voting age population in this chart).²⁹³ Thus, 240,729,999 of the U.S. population are adults (both

²⁹¹ Election Assistance Commission, *Register to Vote in Your State by Using This Postcard Form and Guide Voter Registration Card* (Silver Spring, MD: Election Assistance Commission, 2006), https://www.eac.gov/assets/1/Documents/Federal%20Voter%20Registration_1209_en9242012.pdf.

²⁹² Election Assistance Commission, 37 (see footnote 18).

²⁹³ "American FactFinder," U.S. Census Bureau, accessed November 18, 2017, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_1YR_S0101&prodType=table. Note: The Census Bureau's statistical analysis breaks down the population, including specifying those 19 and under (rather than 17 and under would have been more valuable for determining voting age populations).

citizens and non-citizens). For non-citizens, this number includes legal immigrants who are lawful permanent residents (LPRs), nonimmigrant residents in the United States who are in this country for the duration of status of their visas (such as students and temporary workers), visitors for business or pleasure, and those who are illegally present or who have remained in the United States past the expiration of their visas. These individuals are not eligible to vote in national elections, yet many of these individuals (those who are LPRs or in this nation legally for a duration of time) have social security numbers and driver's licenses. Foreign-born individuals are issued social security numbers when they are authorized to work or go to school in the United States, which includes immigrants, and non-immigrant types encompassing foreign workers and students. They are also granted driver's licenses to carry out their work or school.

Verifying citizenship, unfortunately, is not simple. Only a few ways exist to verify the citizenship of a voter; by the voter submitting proof of citizenship documentation when registering or by state and local election officials verifying citizenship through electronic means. If the responsibility to confirm citizenship status is required of the state's election officials, they would need the ability to verify citizenship with the place of birth in the United States, whether in the same state or another state, citizenship through naturalization, or derived citizenship.²⁹⁴

If first time voters are asked to provide proof of U.S. citizenship for voter registration, several documents can be provided. The following list is based upon what the Department of State requires for passport eligibility and what the U.S. Citizenship and Immigration Services (USCIS) requires for proof of citizenship for U.S. citizen petitioners:

- U.S. birth certificate
- Department of State issue U.S. passport or passport number
- Department of State Consular Report of Birth Abroad, or FS-240

²⁹⁴ Note: There are two ways to obtain derived citizenship through U.S. citizen parents: one at birth from U.S. citizen parents and one after birth, before the age of eighteen after the parents naturalize. For more information, see USCIS Policy Manual guidance on Children of U.S. Citizens.

- U.S. naturalization certificate or certificate of citizenship issued by the USCIS
- Other documents issued by the federal government pursuant to the Immigration and Naturalization Act of 1952
- Bureau of Indian Affairs card
- American Indian card, issued by the DHS
- Final adoption decree showing the applicant's name and U.S. birthplace
- U.S. military record of service showing applicant's place of birth in the United States
- Extract from a U.S. hospital record of birth created at the time of the applicant's birth indicating the applicant's place of birth in the United States²⁹⁵

Non-citizens present in the United States typically have all the usual or standard identification forms with the exception of a valid state-issued birth certificate or naturalization certificate. Documents may be altered, fraudulently produced, or fraudulently gained.²⁹⁶ The Department of Health and Human Services produced a report in September 2000 stating that fraudulent birth certificates are easy to obtain.²⁹⁷ As of

²⁹⁵ "Proof of U.S. Citizenship and Identification When Applying for a Job," U.S. Citizenship and Immigration Services, accessed November 1, 2017, <https://www.uscis.gov/us-citizenship/proof-us-citizenship-and-identification-when-applying-job>; "Frequently Asked Questions," U.S. Department of State, accessed November 1, 2017, <https://travel.state.gov/content/passports/en/passports/FAQs.html>.

²⁹⁶ For example, for non-citizens to gain a non-citizen driver's license in the state of Georgia, they must show they have been present in the state for 30 days and meet the state's residency requirements. They must pass the driver's examination or provide evidence of a foreign or international driver's license and show proof of an immigration document, such as a receipt they applied for benefits, which however, does not mean they have legal status nor are eligible for such. As a result, a non-citizen, who is not eligible to immigrate, can gain a lawfully gained state of Georgia driver's license. The state may or may not label the driver's license as temporary or non-citizen. This procedure is similar to other state requirements for gaining driver's licenses. See <http://www.dds.ga.gov/drivers/DLdata.aspx?con=1741471757&ty=dl>.

²⁹⁷ June Gibbs Brown, *Birth Certificate Fraud* (Washington, DC: Department of Health and Human Services, Office of the Inspector General, 2000), 7, <https://oig.hhs.gov/oei/reports/oei-07-99-00570.pdf>.

2000, over 6,422 different entities issued birth certificates in the states.²⁹⁸ The differing of standards and access to computers, scanners, and good printers creates a vulnerability for relying on presented documents.

People might think it ideal that both should happen, the voter and the state being equally committed in proving eligibility. Submitted documents can be fraudulent, dishonestly gained, altered, or completely fake. If local and state officials reviewing documents are not well-trained in spotting fraudulent or fake documents, they can miss indicators of fraud. The best way of verifying information appears to be when government entities have a viable means to confirm information from original sources. This verification mitigates fraud and may reduce the voter's burden. An argument can be made that having applicants produce documents can be unduly burdensome. They may have lost the original documents during a disaster or it may be inconvenient or costly to gain them. If officials relied more on systemic verification, would this prevent disenfranchisement while ensuring eligibility is verified? Fortunately, several systems exist that can help verify citizenship and voter eligibility.

In 2014, Jess T. Richman, Gulshan A. Chattha, and David C. Earnest used a nationwide sampling from the 2008 and 2010 Cooperative Congressional Election Studies via data gained from internet-based surveys.²⁹⁹ The survey questionnaire listed over 100 questions ranging from election participation, preferences, and candidate choices. Over 32,800 responses were obtained in 2008 and 55,400 in 2010 offering an enormous data set for researchers. The survey did not focus on non-citizen voting or election fraud, but did ask pointed questions including citizenship status.³⁰⁰ For the 2008 survey, participation was verified for at least some individuals in every state to help confirm the reliability of the data.³⁰¹ Richman, Chattha, and Earnest concluded, "Most non-citizens did not register or vote in 2008, but some did. The proportion of non-citizens who [claimed to have] voted was less than fifteen percent, but significantly greater than

²⁹⁸ Brown, 7.

²⁹⁹ Richman, Chattha, and Earnest, "Do Non-Citizens Vote in U.S. Elections," 150.

³⁰⁰ Richman, Chattha, and Earnest, 150.

³⁰¹ Richman, Chattha, and Earnest, 150.

zero. Similarly in 2010 we found that more than three percent of non-citizens reported voting.”³⁰² Does this survey provide evidence non-citizens voted. The proof is in the registration data and the actual votes, so these numbers are indicators only.

Most states rely on voter affirmation where the voter affirms under penalty of perjury they meet the qualifications of an eligible voter. On a voter registration application form, applicants would need to affirm they are a U.S. citizen and at least 18 years old as of the Election Day.³⁰³ In other words, the nation relies on good faith that the voters are honest and not willing to misrepresent themselves to cast a vote. Affirmation may be sufficient for some, but it may cast doubt with others if eligibility is not verified and confirmed. The burden of proof is on the state registration official, and not the individual who claims to be a U.S. citizen.

1. Verifying Birth in the United States

Verifying birth certificates is likely impossible unless the voters were born within the state in which they are registering.³⁰⁴ Although it might be easy for a state to verify the birth for voters born within their state, states and territories do not share each other’s vital records databases, which could help determine birth in another state. Name changes can affect the ability to do so in an efficient manner. Research demonstrates fraudulent birth certificates are easy to obtain.³⁰⁵ With the technology available today on a typical laptop, fraudulent birth certificates and fake documents are not overly difficult to produce.³⁰⁶ In 2000, over 6,422 different entities within the states issued birth certificates and over 14,000 were different versions of certificates in circulation.³⁰⁷

³⁰² Richman, Chattha, and Earnest, 154.

³⁰³ Election Assistance Commission, “Register to Vote in Your State by Using This Postcard Form and Guide Voter Registration Card,” 37 (see footnote 18).

³⁰⁴ Department of Health and Human Services, Office of the Inspector General, *Birth Certificate Fraud*, 11.

³⁰⁵ Department of Health and Human Services, Office of the Inspector General, 7.

³⁰⁶ John S. Pistole, “Testimony: Fraudulent Identification Documents and the Implications for Homeland Security, Department of Justice,” October 1, 2003, <https://archives.fbi.gov/archives/news/testimony/fraudulent-identification-documents-and-the-implications-for-homeland-security>.

³⁰⁷ Department of Health and Human Services, Office of the Inspector General, *Birth Certificate Fraud*, 7.

Instead of having an election or driver's license official review provided birth certificates, the nation can leverage from systems that hold this information. Just as naturalized or derived citizenship can be verified through the USCIS systematic alien verification for entitlements (SAVE) program, birth or adoption in the United States can be verified through systems as well.

For birth certificates, it might be easy for a state to verify the birth for voters born within their state; states and territories rarely appear to share each other's vital records databases, which could help determine birth in another state.³⁰⁸ Name changes can affect the ability to do so in an efficient manner as well, unless the registration form requests and gains previous names used (aliases), such as a maiden name.

Birth and death records can be verified through a national system called EVVE or electronic verification of vital events.³⁰⁹ EVVE is a protected repository operated by the National Association for Public Health Statistics and Information Systems.³¹⁰ It provides federal and state agencies the ability to establish proof of age, citizenship, and eligibility for employment, services, and benefit applicants.³¹¹

Queries may be run individually or in batch queries, which enable efficiencies. The request is queried against the specified jurisdiction's vital records data. Results from the query are provided back to the client to show either a confirmed match or no match. Any *no match* should be treated as an indicator only. Confirmation should be made with the voter applicants for them to assist in resolving any information. This method will certainly expose those using fraudulently made or altered birth certificates. Limitations do exist however as it appears that New York and Texas do not participate in sharing information on vital records.

Additionally, verifying voter death information through EVVE FOD (fact of death) would corroborate the information received from another source and strengthen

³⁰⁸ "Information Systems for Vital Records Stewardship," National Association for Public Health Statistics and Information Systems, accessed February 13, 2018, <https://www.naphsis.org/systems>.

³⁰⁹ National Association for Public Health Statistics and Information Systems.

³¹⁰ National Association for Public Health Statistics and Information Systems.

³¹¹ National Association for Public Health Statistics and Information Systems.

the process to ensure no voter is inadvertently removed through record discrepancies in the death index.

2. Verifying Naturalized and Derived Citizenship

To verify citizenship of those foreign-born, it is valuable for state and local election officials to have access to federal databases. A previously mentioned system is the USCIS SAVE, provided for by section 404 of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (110 Stat. 3009-664) to vet the lawful presence of a person in the United States.³¹² This DHS system was designed for inter-government usage for assisting benefit-granting agencies in determining an individual's status in the United States.³¹³ Over 100 million records are accessible through this program, which permits a strong verification system for status in the United States for those applying for benefits through the legal immigration system.³¹⁴ The SAVE program provides a secure verification service for these purposes. Perhaps the program could be extended for naturalized citizen voter verification.³¹⁵

As of 2017, 100 agencies across the United States are utilizing the SAVE program for secure and quick citizenship verification.³¹⁶ The system, designed initially for public benefits, has greatly expanded service to include usage for agencies that conduct federal security clearance background investigations, social security benefits, driver's licenses, housing benefits, state and local government verification and occupational and

³¹² "SAVE: Understanding the Systematic Alien Verification for Entitlements (SAVE) Program," U.S. Citizenship and Immigration Services, November 2011, www.uscis.gov/SAVE.

³¹³ "Roundtable 5: The SAVE Program: Verification, Immigrants, and Public Benefits," Department of Homeland Security, August 24, 2015, <https://www.dhs.gov/save-program-verification-immigrants-and-public-benefits>.

³¹⁴ "SAVE Overview Video," U.S. Citizenship and Immigration Services, video, 2:50, last updated September 8, 2016, <https://www.uscis.gov/save/about-save>.

³¹⁵ U.S. Citizenship and Immigration Services.

³¹⁶ "SAVE History and Milestones," U.S. Citizenship and Immigration Services, last updated September 9, 2017, <https://www.uscis.gov/save/history-milestones#y2018>.

professional licensing.³¹⁷ The REAL ID Act requires the use of the SAVE program for routine verifications; however, neither SAVE nor the REAL ID Act programs are federally required for voter identity verification.³¹⁸

Improving the ability to ensure eligibility in voter lists is needed according to the Presidential Commission on Election Administration report dated January 2014.³¹⁹ The SAVE program could aid in this effort. The SAVE program can verify those with a non-immigrant status, immigrant status, U.S. citizenship for naturalized citizens, and U.S. citizenship for derived citizens.³²⁰ Cross-referencing a state's voter registration rolls against such databases is valuable, increases integrity, and bolsters trust in the system. SAVE "does not make determinations on any applicant's eligibility for a benefit or license."³²¹ The results do not definitively establish that a person is ineligible to vote either; however it provides sufficient grounds for requesting confirmation of voter eligibility directly from the voter.³²²

The SAVE program appears to have two major flaws at this time for voter verification, however. To look up individuals in the system, the alien file or the naturalization certificate number issued by the DHS is needed.³²³ Searches are conducted

³¹⁷ U.S. Citizenship and Immigration Services, *Privacy Impact Assessment for the Systematic Alien Verification for Entitlements (SAVE) Program* (Washington, DC: U.S. Citizenship and Immigration Services, 2011), 5, https://www.dhs.gov/xlibrary/assets/privacy/privacy_pia_uscis_save.pdf; U.S. Citizenship and Immigration Services, *SAVE Agency Search Tool Quick Reference Guide* (Washington, DC: U.S. Citizenship and Immigration Services, 2015), 5–6, <https://www.uscis.gov/sites/default/files/USCIS/Verification/SAVE/About%20the%20SAVE%20Program/SAVE%20Search%20Tools/SAVE-Agency-Search-Tool-Quick-Reference-Guide.pdf>.

³¹⁸ U.S. Citizenship and Immigration Services, *Privacy Impact Assessment for the Systematic Alien Verification for Entitlements (SAVE) Program*, 5.

³¹⁹ Election Assistance Commission, *The American Voting Experience: Report and Recommendations of the Presidential Commission on Election Administration* (Washington DC: Government Printing Office, 2014), 3, <https://www.eac.gov/assets/1/6/Amer-Voting-Exper-final-draft-01-09-14-508.pdf>.

³²⁰ U.S. Citizenship and Immigrant Services, "SAVE: Understanding the Systematic Alien Verification for Entitlements (SAVE) Program."

³²¹ U.S. Citizenship and Immigration Services.

³²² Morley, "Dismantling the Unitary Electoral System?" 124; "Welcome to the Systematic Alien Verification for Entitlements Program (SAVE)," U.S. Citizenship and Immigration Services, accessed February 14, 2018, <https://www.uscis.gov/save>.

³²³ Office of Personnel Management, *Notice No. 07-02: Verification of Immigration/Citizenship Status* (Washington, DC: Office of Personnel Management, 2007), <https://nbib.opm.gov/hr-security-personnel/federal-investigations-notices/2007/fin-07-02.pdf>.

one at a time, and not via batch verification. For these two reasons, the SAVE database is neither an effective, nor efficient system to use for verification purposes. An alien number is required and verifying one record at a time is not an effective or pragmatic use of system capabilities. This flaw hinders an efficient verification program. Perhaps, the SAVE program could be enhanced to allow searches on basic search criteria, such as full first name, full last name, date of birth, and the last four numbers of the individual's social security number, as well as aliases (maiden name). To be truly innovative, the SAVE program should be enhanced to allow batch processing by a state in the normal course of its voter registration list maintenance to allow for effective identity matching and create efficiencies to strengthen the voter verification process. Any results showing a possible discrepancy is an indicator only and should be treated as a possible issue that needs resolution, such as outreach to the individuals to afford them the opportunity to establish their eligibility through proof of documentation.

E. THE REAL ID ACT AND VOTER VERIFICATION

A voter identity verification program some election officials rely on is the Real ID Act—Title II, passed by Congress in 2005 and enacted from the 9/11 Commission's recommendation. The use of REAL ID compliant cards is thought to be sufficient to show citizenship for the card bearers. It is true that to gain a card, proof of citizenship or lawful presence in the United States and in their residency in the state is required. Regardless of an individual's status in the United States (citizen or non-citizen), an individual may qualify for a REAL ID driver or non-driver's license. The Act requires the states to verify the status, to include checking the USCIS SAVE program.³²⁴ No federal requirement exists, however, for states to imprint the status of an individual (citizen or non-citizen) on the REAL ID card itself to equip officials viewing the cards.³²⁵

³²⁴ Karrie Anne Jefferson, "What's in a Name: A Comparative Analysis of the United States' REAL ID Act and the United Kingdom's National Identity Scheme" (master's thesis, Naval Postgraduate School, 2015), 18, <https://www.hsdl.org/?view&did=790327>.

³²⁵ Note: The REAL ID Act is absent any language requiring citizenship or non-citizenship status designators on REAL ID complaint identification.

As background, the REAL ID Act compels states to issue identification documents, including driver's licenses, which conform to minimum security standards.³²⁶ Since 2008, federal entities are barred from accepting state-issued identification cards that do not meet the REAL ID Act standards unless the state has been granted compliance extension.³²⁷ REAL ID Act cards are required for travel through federally regulated transit stations including airports, as well as access into federal buildings or onto federal installations.

The DHS has deemed 30 states REAL ID Act compliant.³²⁸ Sixteen states, as well as all U.S. territories, have requested extensions, which are under review.³²⁹ Five states are under review for extension requests. See Appendix C for the compliance status for each state. Currently, states are not subject to federal compliance reviews and enforcement of the REAL ID Act.

In compliance with the REAL ID Act of 2005 (the Act), the REAL ID applicant must show photo identity with the person's full legal name and date of birth, or documentation showing the person's date of birth, or proof of the person's social security number, or documentation showing the person's full name and residential address. The applicant must also show evidence of lawful status, whether citizen or non-citizen: alien lawfully admitted for permanent or temporary residence, conditional permanent resident, approved application for asylum or entered as a refugee, pending asylum application, valid non-immigrant visa, or a pending or approved application for temporary protected status in the United States.³³⁰

For card production, the REAL ID Act stipulates a number of verifiable identifiers be listed on the card, including the individual's full legal name, date of birth,

³²⁶ "REAL ID Frequently Asked Questions by the Public," Department of Homeland Security, accessed October 19, 2017, <https://www.dhs.gov/real-id-public-faqs>.

³²⁷ Department of Homeland Security.

³²⁸ "REAL ID," Department of Homeland Security, accessed October 19, 2017, <https://www.dhs.gov/real-id>.

³²⁹ Department of Homeland Security.

³³⁰ Department of Homeland Security, *Real ID Act, Title II* (Washington, DC: Department of Homeland Security, 2005), 2, <https://www.dhs.gov/xlibrary/assets/real-id-act-text.pdf>.

card identification number, a digital photograph of the individual, applicant's signature, and residential address.³³¹ The card would have common machine-readable technology (MRT) and other features to prevent tampering and counterfeiting and would expire in eight years.³³² Cards that do not meet the stated requirements must have a "unique design or color."³³³ They must plainly state "on [the] face [of the card] that it may not be accepted by any Federal agency for federal identification or any other official purpose."³³⁴

North Dakota addressed the issue requiring additional designators for status on its REAL ID compliant cards as it relies heavily on the REAL ID card for voter verification. North Dakota state law requires a citizenship status designator be added to each driver's license to help their officials to distinguish status for use in voter verification. This requirement is set in their North Dakota Century Code Chapter 39-06 regarding operator's licenses where they specify non-citizen cards "must be designed in a manner to clearly make the card distinguishable from a similar card issued to a citizen of the United States and resident of this state."³³⁵ This requisite is in place for both driver's licenses and non-driver's licenses.

North Dakota also addresses the problem individuals might face for replacing a card as their status changes, such as when lawful permanent residents become naturalized citizens. State officials placed this language into their code, "The card may be replaced with a card issued to a citizen of this country and resident of this state only when proof of U.S. citizenship is provided by the individual and any applicable replacement fee listed in section 39-06-49 is paid."³³⁶ States could adopt similar language recommending the card be replaced should the individual become a citizen.

³³¹ Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief, 2005—REAL ID Act, Public Law 109-13, U.S. Statutes at Large 119:231 (May 11, 2005): 82–83, <https://www.gpo.gov/fdsys/pkg/PLAW-109publ13/pdf/PLAW-109publ13.pdf>.

³³² Emergency Supplemental Appropriations Act for Defense.

³³³ Emergency Supplemental Appropriations Act for Defense.

³³⁴ Emergency Supplemental Appropriations Act for Defense.

³³⁵ "Title 39 Motor Vehicles, Sections 39-06," North Dakota Legislative Branch, North Dakota Century Code, 3, 7, August 18, 2017, <http://www.legis.nd.gov/cencode/t39.html>.

³³⁶ North Dakota Legislative Branch.

Although the REAL ID Act clearly articulates that the Act does not relate to voting or registering to vote, it appears permissible for states to legislate law to use such identification for voter verification. If status is not distinguished on the card for ease of use by an election official, another option might be for each polling site to have access to the Department of Motor Vehicles (DMV) database at the polling sites to verify card information and citizenship status, although the inefficiency of this method could cause long lines and delays on Election Day.

F. MAIL-IN REGISTRATION AND VOTING

For over 150 years, voting by mail for absentee voting has been permitted for the military, those who were immobile due to health, and those away from their normal jurisdiction due to education or employment.³³⁷ In 1995, Oregon became the first state to conduct its voting exclusively through mail.³³⁸ Washington State moved to an entirely vote-by-mail system in 2011.³³⁹ In 2013, Colorado began relying on a vote-by-mail system, although it does offer some polling sites.³⁴⁰ Twenty-two states have provisions in their state law to conduct some elections entirely by mail.³⁴¹ These states verify by matching the signature on the ballot or envelope to those within the registration list.³⁴²

In studying the vote-by-mail systems, several points of vulnerability can be found. Signatures cannot be electronically measured the same way as facial photos and fingerprints. “It is very possible to train oneself to fraudulently replicate someone else’s signature, and even simpler to alter your own signature while attempting double

³³⁷ Christopher B. Mann, “Mail Ballots in the United States: Policy Choice and Administrative Challenges,” in *The Measure of American Elections*, ed. Barry C. Burden and Charles Stewart III (New York: Cambridge University Press, 2014), 116.

³³⁸ “All-Mail Elections (aka Vote-By-Mail),” National Conference of State Legislatures, last updated January 12, 2017, <http://www.ncsl.org/research/elections-and-campaigns/all-mail-elections.aspx>.

³³⁹ National Conference of State Legislatures.

³⁴⁰ National Conference of State Legislatures.

³⁴¹ National Conference of State Legislatures.

³⁴² National Conference of State Legislatures, “Voter Identification Requirements.”

registration.”³⁴³ Ballots may not get to their intended voter, or may be returned after the deadline.³⁴⁴ Heavy or total mail-in voting can cause a large number of votes being uncounted until after Election Day.³⁴⁵ In addition, visual verification by humans for each signature against the electronic capture of the registration signature on millions of votes would be inefficient and costly.

Despite these drawbacks, mail-in registration and voting appears overwhelmingly convenient and popular. In the 2012 election, 30 states permitted voters to request vote-by-mail without having to provide an excuse as required by normal absentee voting. Identity verification and dependability of mail delivery remain concerns, however.³⁴⁶

States handle these concerns in different ways. During voter registration, Colorado verifies the individual’s eligibility based upon address, age, and affirmation of citizenship. The state also requires the voter applicants to provide their driver’s license number or their last four digits of their social security numbers. These identifiers are used to match this information against the database of the division of motor vehicles, which is REAL ID compliant that can ascertain whether citizenship was verified.³⁴⁷ Washington State and Oregon require individuals to register before voting as well; however, these states are not REAL ID compliant, and therefore, proof of citizenship, in particular, is not verified.³⁴⁸ Washington State and Oregon do utilize ERIC and a number of other databases to assist with keeping their voter registration updated, yet verification of citizenship appears to elude them.³⁴⁹

³⁴³ Ole Holtved, *Biometrics in Elections, Georgia: De-Duplication or Voter Register and Verification of Voter Identity Using Biometrics* (Washington, DC: U.S. Agency International Development, 2011), 6, http://www.ifes.org/sites/default/files/biometrics_in_elections_2011_0.pdf.

³⁴⁴ CALTECH/MIT, *The Voting Technology Project: Looking Back, Looking Ahead* (Pasadena, CA and Cambridge, MA: The Caltech/MIT Voting Technology Project, 2016), 8, <http://www.vote.caltech.edu/reports/8>.

³⁴⁵ CALTECH/MIT, 9.

³⁴⁶ Mann, “Mail Ballots in the United States: Policy Choice and Administrative Challenges,” 114.

³⁴⁷ Colorado Secretary of State, *Election Law, Colorado’s Revised Statutes, Title 1* (Denver: State of Colorado, 2017), 62, <https://www.sos.state.co.us/pubs/elections/LawsRules/files/Title1.pdf>.

³⁴⁸ Department of Homeland Security, “REAL ID.”

³⁴⁹ “Washington State Voter Registration Database,” Washington State Secretary of State, accessed November 12, 2017, <https://www.sos.wa.gov/elections/vrdb/>; “Electronic Registration Information Center: Who We Are,” ERIC, accessed January 15, 2018, <http://www.ericstates.org/whoweare>.

In his 2014 published paper, “Voter Confidence as a Metric of Election Performance,” Paul Gronke shared that voter confidence ratings were lower for vote-by-mail voters as compared to early in-person or polling place voters.³⁵⁰ He provides hope that officials can nurture confidence among the constituency by ensuring voters have positive voting experiences.

G. VOTER REGISTRATION: KEEPING THE LISTS CLEAN

Voter registration is costly and complicated.³⁵¹ Biographic data are highly changeable and without common data formats, high levels of inconsistencies and unreliable data across systems can exist. Verifying eligibility can be impossible when the state and local election officials do not have the tools they need. Voter registration is also one of the most important aspects of elections to ensure integrity in the program. If done well, it substantiates election legitimacy and ensures the will of the citizens.

Spurred by the Gore v. Bush election fiasco, the voter technology project researched the 2000 election and estimated 1.5 to 3 million votes were lost due to poor registration methods.³⁵² Election experts believe registration can suppress legitimate voters while opening a vulnerability for voter fraud.³⁵³

1. The Rules and Methods

The Help America Vote Act of 2002 (HAVA) requires states to maintain their voter registration lists.³⁵⁴ A credible voter registration lists give legitimacy to the electoral process and prevents election fraud.³⁵⁵ Forty-nine states and the District of

³⁵⁰ Gronke, “Voter Confidence as a Metric of Election Performance,” 263.

³⁵¹ “Voter Registration,” ACE, The Electoral Knowledge Network, accessed January 19, 2018, <http://aceproject.org/ace-en/topics/vr/onePage>.

³⁵² Massachusetts Institute of Technology, School of Humanities, Arts, and Social Sciences, “SHASS: News—2016,” *Election Insights 2016* (blog), accessed February 3, 2018, <https://shass.mit.edu/news/news-2016-election-insights-charles-stewart-iii-election-integrity>.

³⁵³ Stephen Ansolabehere and Eitan Hersh, “Voter Registration: The Process and Quality of Lists,” in *The Measure of American Elections*, ed. Barry C. Burden and Charles Stewart III (New York: Cambridge University Press, 2014), 61.

³⁵⁴ Election Assistance Commission, “Help America Vote Act.”

³⁵⁵ Wolf et al., *Introducing Biometric Technology in Elections*, 65.

Columbia are required by federal law (HAVA) to create and maintain an electronic central voter file.³⁵⁶ The requirement for maintaining a list under HAVA has one exception, that of North Dakota.³⁵⁷ North Dakota abolished its voter registration in 1951 due to the rural nature of the state and close networks of the communities within.³⁵⁸ As the North Dakota legislation occurred prior to HAVA, North Dakota is considered exempt. The state does allow its cities to register voters for city elections.³⁵⁹ The state requires, however, voters to present identification at the time of voting. This identification requires a North Dakota driver's license, non-driver identification, or tribal identification with the current residential address and date of birth.³⁶⁰

For the other states, HAVA allows by-mail voter registration and creates requirements for how states should maintain their voter lists for federal elections. For instance, HAVA requires the states to keep the voter information current and requires states to embed safeguards that prevent an eligible voter from being unintentionally removed.³⁶¹

States have gone on to allow registration in multiple ways: in person at an election office, other public sites facilitating registration, or through registration drives by community or political organizations.³⁶² Some states offer online voter registration, same day registration through provisional voting, and pre-registration opportunities for teens.³⁶³

³⁵⁶ Election Assistance Commission, "Help America Vote Act,"

³⁵⁷ "Voter Registration," National Conference of State Legislatures, accessed July 31, 2017, <http://www.ncsl.org/research/elections-and-campaigns/voter-registration.aspx>.

³⁵⁸ North Dakota Secretary of State, *North Dakota....The Only State without Voter Registration* (Bismarck ND: North Dakota Secretary of State, 2004), <http://www.library.nd.gov/statedocs/SecretaryState/votereg-2.pdf>.

³⁵⁹ North Dakota Secretary of State.

³⁶⁰ North Dakota Secretary of State.

³⁶¹ "National Voter Registration Act," U.S. Department of Justice, accessed January 18, 2018, <https://www.justice.gov/crt/about-national-voter-registration-act>; "The Canvass: States and Election Reform," National Conference of State Legislatures, 4, May 2016, <http://www.ncsl.org/research/elections-and-campaigns/voter-registration.aspx>.

³⁶² National Conference of State Legislatures, "Voter Registration."

³⁶³ National Conference of State Legislatures.

Several states allow for automatic or streamlined voter registration through their DMV. Registering to vote at a DMV was originally made possible through the 1993 National Voter Registration Act (NVRA). This act mandates that each state driver's license form include voter registration information.³⁶⁴ In Oregon, voters are automatically registered from the Oregonian DMV database.³⁶⁵ The same is for California. Individuals may choose to opt-out if they do not wish to be on a registration list and vote.³⁶⁶

Voter applicants may also send in a completed national mail voter registration (NMVR) form by mail, maintained by the EAC. All states use this form except North Dakota and Wyoming.³⁶⁷ New Hampshire uses the form only as a request for an absentee voter form.³⁶⁸ On the NMVR form, the voter applicants must indicate their status as either U.S. citizen or non-citizen.³⁶⁹ Due to their specific laws, states may or may not ask voters to verify citizenship later. See Figure 4 for states' voter registration methods.

³⁶⁴ National Conference of State Legislatures, "Voter Registration."

³⁶⁵ National Conference of State Legislatures.

³⁶⁶ National Conference of State Legislatures.

³⁶⁷ Election Assistance Commission, *14 Facts* (Silver Spring, MD: Election Assistance Commission, 2014), https://www.eac.gov/assets/1/6/VotersGuide_508.pdf.

³⁶⁸ Election Assistance Commission.

³⁶⁹ National Conference of State Legislatures, "Voter Registration."

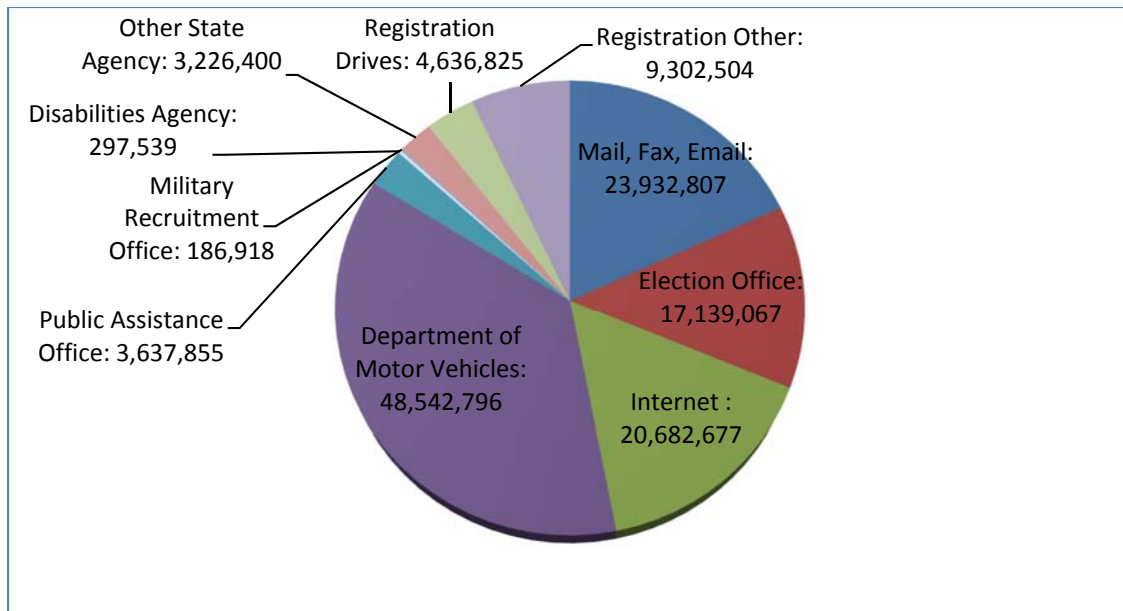


Figure 4. The Election Administration and Voting Survey: 2016 Voter Registration Methods.³⁷⁰

Registration problems can cause lost votes. According to a survey held by the CalTech/MIT voting technology project, the 2008 general election lost 2.2 million votes due to registration problems.³⁷¹ In February 2012, the PEW Charitable Trusts published research that found “one in eight state voter registrations is inaccurate, more than 1.8 million deceased voters are still on the rolls and approximately 2.75 million voters are registered in more than one state.”³⁷² During this same research period, it was estimated “at least 51 million eligible U.S. citizens were unregistered, or more than 24 percent of the eligible population.”³⁷³ Voter registration issues are costly and affect the outcome of an election.

Election experts Stephen Ansolabehere and Eitan Hersh suggest four purposes for registration lists: to link voters to precincts, to authenticate voters at the polls, to audit

³⁷⁰ Adapted from Election Assistance Commission, *The Election Administration and Voting Survey: 2016 Comprehensive Report*, 39.

³⁷¹ Alvarez and Hall, *Resolving Voter Registration Problems*, 4.

³⁷² Pew Center on the States, *Inaccurate, Costly, and Inefficient*, 1.

³⁷³ Pew Center on the States, 1.

election results, and to prevent in-person voter fraud.³⁷⁴ The findings of this thesis suggest a fifth important function for voter registration listings: to verify voter identity and eligibility at the time of registration and throughout the lifetime of the voter.

2. Two Multi-State Systems: ERIC and Crosscheck

Two multi-state systems have grown out of a state response to increase data integrity in the voter registration rosters. Former Kansas Secretary of State Ron Thornburgh signed a four-state agreement in December 2005 for what has become the interstate voter registration crosscheck program or known simply as Crosscheck. As of 2017, 30 states are participating in Crosscheck. The other well-known voter verification system was initiated by the Pew Charitable Trusts in 2012, ERIC.³⁷⁵ It is owned, managed, and funded by 21 member states.³⁷⁶

These systems can detect issues for the states. In 2016, Crosscheck had detected over five million potential matches between states based upon first name, last name, data of birth, and last four of the social security numbers.³⁷⁷ Each potential match is reported to the specific states so verification can take place at the local or state levels. ERIC found large numbers of potential duplicates as well. Between 2013 and 2017, ERIC identified 722,443 cross-state movers, 5,527,933 in-state movers, 141,203 in-state duplicate registrations, and 199,594 deceased voters identified for removal from 16 states plus the District of Columbia voter registration lists.³⁷⁸ Although the two multi-state systems are utilized by several states for verification enhancements, the challenges remain enormous.

While most private industry and many government agencies have updated their systems to take advantage of modern technology, voter registration

³⁷⁴ Ansolabehere and Hersh, “Voter Registration: The Process and Quality of Lists,” 61.

³⁷⁵ “Election Initiatives: Electronic Registration Information Center,” PEW Charitable Trusts, accessed December 3, 2017, <http://www.pewtrusts.org/en/projects/election-initiatives/about/upgrading-voter-registration/eric>.

³⁷⁶ PEW Charitable Trusts.

³⁷⁷ Keith Esau, *Kansas, Interstate Voter Registration Crosscheck Program: National Conference of State Legislators* (Olathe, KS: Keith Esau, 2017), 14–16, http://www.ncsl.org/Portals/1/Documents/Elections/Kansas_VR_Crosscheck_Program.pdf.

³⁷⁸ “Ensuring the Efficiency and Integrity of America’s Voter Rolls,” ERIC, accessed November 24, 2017, <http://www.ericstates.org/>.

systems remain largely based on 19th century tools, such as handwriting on paper forms and postal mail. The inherent inefficiencies in the system result in unnecessarily high costs, and make it difficult to keep voter rolls clean throughout the country. For example, 1 in 8 voter registration records in America contain a serious error. In addition, more than 51 million citizens, or 25 percent, remain unregistered to vote. (ERIC)³⁷⁹

Disparate formats and systems can cause havoc when verifying data against other systems. Formatting standards may be incompatible with the two main multi-state systems, ERIC and Crosscheck, let alone federal databases, such as the USCIS SAVE program, Social Security Death Index, and the U.S. Postal Service NCOALink for address verification. When systems are mismatched and dissimilar, connectivity may be difficult or impossible. As election expert Charles Stewart III states, “The geographic churn in the American adult population creates a record-keeping challenge for the system of voter registration in the United States.”³⁸⁰ Add to these formidable challenges the number of individuals who become eligible to vote (those who turn 18 or become naturalized citizens), those who become ineligible to vote (those that become a convicted felon, those determined incompetent, and the few who are denaturalized), as well as the massive numbers of voters who simply move to another jurisdiction. Maintaining state listings can be a record-keeping nightmare.

People register multiple times in one or more states for many legitimate reasons. The United States has a highly mobile population. Those affected by economic downturns or natural disasters may be more transient than others.³⁸¹ Updating a voter registry is not likely high on a person’s to-do list when moving. Any registration system should be built in a manner that is convenient for voters to update their information, while allowing for other systems to help update that information, such as when a new driver’s license is gained due to a move or the U.S. Postal Service receives a change of address card. When records are not updated, however, it may allow for voting across state

³⁷⁹ ERIC, “Ensuring the Efficiency and Integrity of America’s Voter Rolls.”

³⁸⁰ Chapin, “Charles Stewart on “Mobility and Registration”.”

³⁸¹ PEW Center on the States, *Inaccurate, Costly, and Inefficient*, 1.

lines or county jurisdictions. Not all states use ERIC and Crosscheck, and each has information gaps, such as citizenship verifications.

3. The Virginia Example

Virginia is a good state to profile for one that is assertively maintaining its voter lists. It was one of the first states to create a singular state voter registration database and has been a leader in voter registration list maintenance practices and reporting.³⁸² The state election board participates in both ERIC and Crosscheck. As voter information is added, updated, or classified as in-active, it can require thousands of database transactions per month. Virginia invests in sending confirmation mailings to the voter's last known address to ensure the integrity of the data gleaned from other systems. These mail outs include postage paid envelopes to ease the burden on the voter.³⁸³ If no response is received, the voter is classified as in-active. In Virginia, inactive voters who have not voted or updated their information for a period of two federal elections are removed.

For removing convicted felons from their list pursuant to § 24.2-409 of the Code of Virginia, the state relies on gaining information from the Virginia State Police Central Criminal Record Exchange for monthly lists of felony convictions. As potential matches are made in their voter list, they are reviewed by their general registrar for confirmation and processing.³⁸⁴

Per § 24.2-410 of the Code of Virginia, information is gained from circuit court clerks regarding individuals found to be legally mentally incapacitated.³⁸⁵ Any potential matches are reviewed by the general registrar for confirmation and processing. Similarly, per § 24.2-404.3 of the Code of Virginia, information is matched against the federal Social Security Death Index, and the Bureau of Vital Statistics at the Virginia Department

³⁸² Virginia Department of Elections, *Annual List Maintenance Report, July 1, 2016–June 30, 2017* (Richmond, VA: Virginia Department of Elections, 2017), <https://www.elections.virginia.gov/Files/maintenance-reports/2017SBEListMaintenancereport.pdf>.

³⁸³ Virginia Department of Elections.

³⁸⁴ Virginia Department of Elections.

³⁸⁵ Virginia Department of Elections.

of Health to learn of matches to potentially deceased voters.³⁸⁶ These records are reviewed by the state's registrar to substantiate a match.

Virginia relies on its DMV to gain information on non-citizens per § 24.2-410.1 of the Code of Virginia.³⁸⁷ The DMV asks driver's license applicants if they are citizens. Virginia DMV officials send state election officials listings for non-citizens. The information is matched against the voter registration list. If matches are found, the general registrar reviews the information. The voter registration record will be removed unless the registered voters affirm their citizenship in writing.³⁸⁸

Currently, citizenship may not be proven unless the voter provides verifiable documents or the election officials gain access to multi-state birth record system, such as EVVE or the SAVE program. Although ERIC and Crosscheck are powerful tools for detecting potential duplicates and discrepancies, they cannot verify citizenship.³⁸⁹ ERIC and Crosscheck do not appear to be linked to EVVE or USCIS SAVE. If linked with state vital statistics databases, it could combine the information to verify claimed birth in that state to enable the 21 states that use ERIC as a voter registration verification tool to conduct further eligibility tests. The same would hold true for Crosscheck, which has 30 participating states.³⁹⁰ Ultimately, both proof of citizenship presented at the time of registration and election official verification through EVVE and SAVE should be performed to close the gap between law and procedure.

4. A Pew Center Study on Voter Registration Lists

A national database was created to study registration lists accuracies. The Pew Center on the States hired a nonprofit organization called RTI International to purchase the voter registration lists from each state and perform a comprehensive study on the

³⁸⁶ Virginia Department of Elections.

³⁸⁷ Virginia Department of Elections.

³⁸⁸ Virginia Department of Elections.

³⁸⁹ "Home," Electronic Registration Information Center, accessed November 19, 2017, <http://www.ericstates.org/>.

³⁹⁰ "Voter List Accuracy," National Conference of State Legislatures, accessed July 31, 2017, <http://www.ncsl.org/research/elections-and-campaigns/voter-list-accuracy.aspx>.

quality and accuracy of the lists.³⁹¹ The results of this study entitled *Inaccurate, Costly, and Inefficient: Evidence That America's Voter Registration System Needs an Upgrade* was published in February 2012. RTI International utilized a database called Catalist, LLC, to import and process the gained voter information.³⁹² This database is not used as a national registry, but instead is a research tool.

The 2012 comprehensive report published after compilation and analysis found that an estimated 24 million inaccuracies in the voter registration listings; 12 million records contained an inaccurate address.³⁹³ Over 2.7 million voters were registered in more than one state. The NCSL echoes the concerns of the Pew Center study in its article, "The Cost of Inaccuracy: Voter Registration Examined."³⁹⁴ Although it is possible for states to check their registries with information coming from national databases, such as the U.S. Postal Service, and some states check their data against that of their neighbors, list accuracy is a difficult target. Inaccuracies are costly.³⁹⁵

Accurately maintaining voter registration listings ensure electoral integrity and confidence in elections by voters.³⁹⁶ To have accurate listings, proactively cross-referencing with state and federal systems is instrumental. Even in states with the most robust practices for maintaining their lists, some voter information will not be correct come Election Day. Voters will move and change their names due to life events. Having the ability for voters to register or update information on Election Day and cast a provisional vote aids in protecting the right to vote. Verification would be needed before the vote is counted. Robust capabilities are needed to verify information efficiently.

³⁹¹ Pew Center on the States, *Inaccurate, Costly, and Inefficient*, 3.

³⁹² Pew Center on the States, 3; "Catalist Data," Catalist, December 3, 2017, <https://www.catalist.us/data/>. Note: Catalist, LLC's website claims its national database holds more than 240 million voting-age individuals that began with a base import of 185 million registered voters collected from the states and the District of Columbia. It enhances its dataset with public, commercially-available information, information from the National Change of Address database, and data from the Census Bureau.

³⁹³ PEW Center on the States, 3.

³⁹⁴ "The Canvass: The Cost of Inaccuracy: Voter Registration Examined," National Conference of State Legislatures, March 2012, <http://www.ncsl.org/research/elections-and-campaigns/the-canvass-march-2012.aspx>.

³⁹⁵ National Conference of State Legislatures.

³⁹⁶ "Voter Registration," International Foundation for Electoral Systems, accessed July 25, 2017, <http://iffes.org/issues/oter-registration>.

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VI. TWO INNOVATIVE SOLUTIONS

Democracy Rebooted, written by Conny B. McCormack of the Atlantic Council, lays out just what is at stake with weak elections and a society afraid of moving forward into a technological world.³⁹⁷ “At a moment of profound political divisions and growing distrust between citizens and their governments, transparency, accuracy, and credibility are more important than ever.”³⁹⁸

This chapter fully addresses research question two: Would the use of a national voter registration database with a biometric program better balance identify and eligibility verification to ensure all eligible voters vote and that those who are ineligible do not? These two solutions are working well in other nations. The United States has the innovative expertise to create tools used with success by other nations to enhance integrity, protect privacy, promote transparency, increase confidence, and strengthen one of the most critical aspects of democracy: free and fair elections.

A. USING A NATIONAL VOTER REGISTRATION LIST

Although state election board officials have come a long way in the creation and maintenance of the lists since HAVA was enacted, state officials still have significant challenges with maintaining their lists.³⁹⁹ According to *The Voting Technology Project: Looking Back, Looking Ahead*, “voter registration was an important point of failure for many potential voters, and [The Caltech/MIT Voting Technology Project] called for efforts to clean up and modernize voter registration databases as well as to implement procedures like provisional balloting as fail-safes for potential voters for whom the registration process might have lost.”⁴⁰⁰ For election integrity, a solid practice during registration, continuous voter registration list maintenance, and voter identity and eligibility verification needs to be in place. Through the NRVA, states must maintain a

³⁹⁷ Conny B. McCormack, *Democracy Rebooted: The Future of Technology in Elections* (Washington, DC: Atlantic Council, 2016), <http://publications.atlanticcouncil.org/election-tech/index.php>.

³⁹⁸ McCormack, 1.

³⁹⁹ PEW Center on the States, “Inaccurate, Costly, and Inefficient.”

⁴⁰⁰ CALTECH/MIT, *The Voting Technology Project*, 4–5.

voter registration list; however they may not be equipped to manage data for a highly mobile and complex population.

1. The Canadian National Register Model

Canada, another federally based country, has very high election confidence based on studies by the internationally recognized EIP, a Harvard University and University of Sydney collaboration. In 2016, EIP ranked Canada at 75 points out of a 100-point index. Out of the 158 countries studied, Canada ranked 17th overall.⁴⁰¹ The United States ranked at 52 points.⁴⁰² Canada also has very high turn-out rates for elections. One distinct factor that may play heavily into Canada's success with elections is it has a national voter registration list.⁴⁰³

Canadian voters do not have the burden of maintaining their voter registration; voter registration is practically automatic.⁴⁰⁴ "There is no need for voters to interact with election officials directly."⁴⁰⁵ Information within the registration list is constantly verified with other federal and provincial systems. This more practical approach can prevent the possibility of voter fraud crime in advance by a verification method that is secure, prevents voter disenfranchisement, and enhances integrity. Canada requires identification at the time of voting, but is generous in the types of identification allowed. If the voters do not have a current address on their identification, they are required to provide an affirmation prior to being allowed to vote.⁴⁰⁶

In 1997, the Canadian Parliament created the National Register, which is based partially on the provincial rolls and to some extent on other government lists to prevent

⁴⁰¹ Norris et al. *The Year in Elections, 2017 Mid-Year Update*, 21.

⁴⁰² Norris et al., 21.

⁴⁰³ "Description of the National Register of Electors," Elections Canada, modified April 25, 2017, <http://www.elections.ca/content.aspx?section=vot&dir=reg/des&document=index&lang=e>.

⁴⁰⁴ Rosenberg with Chen, *Expanding Democracy*, 3.

⁴⁰⁵ Rosenberg with Chen, 3.

⁴⁰⁶ "ID to Vote," Elections Canada, modified April 25, 2017, <http://www.elections.ca/content.aspx?section=vot&dir=ids&document=index&lang=e>.

fraudulent voting and increase participation.⁴⁰⁷ The National Register database contains the voter's identifiers: name, address, gender, and date of birth.⁴⁰⁸ It also creates a unique identifier for each voter to help track changes to the voter's record. If voters are uncomfortable about their personal data being in a centralized voter database, they have the right to opt out while yet retaining their right to vote by submitting a provisional-type vote at the time of election, which is then verified by election officials. Eligible voters realize many benefits when included in the National Register, such as not having to re-register during life changes, such as relocating. Voters are sent notification cards near the time of election that equips them with information on when and where to vote.⁴⁰⁹

This federal voter list has helped to increase trust in Canadian elections, reduce administrative costs, and improve accuracy in the voter registration lists.⁴¹⁰ Canada credibly estimates it has saved more than \$30 million Canadian dollars (approximately \$22.5 million U.S. dollars) for each four-year election cycle since 2000.⁴¹¹ Canada recouped its startup costs associated with purchasing, installing, and utilizing the new national registration list during the first election cycle it used it.⁴¹²

Canada's transition costs were relatively low. Canada built its current registration system over the course of several years, phasing in data-sharing arrangements between election authorities and other government agencies. The start-up costs for developing each arrangement varied by agency. For instance, Canada spent \$116,000 Canadian dollars over the 1997–1999 tax years developing protocols for acquiring information from federal citizenship and immigration authorities. The most expensive data-sharing arrangement to develop was with the federal tax agency, which cost \$3 million Canadian dollars. Canada spent \$19.2 million Canadian dollars developing its data-sharing procedures, most of which was spent on computer hardware and software.⁴¹³

⁴⁰⁷ Elections Canada, "Description of the National Register of Electors"; Rosenberg with Chen, *Expanding Democracy*, 1.

⁴⁰⁸ Elections Canada.

⁴⁰⁹ Elections Canada.

⁴¹⁰ Rosenberg with Chen, *Expanding Democracy*, 38.

⁴¹¹ Rosenberg with Chen, 8.

⁴¹² Rosenberg with Chen, 8.

⁴¹³ Rosenberg with Chen, 8.

If these Canadian figures are extrapolated with no variables other than the size of the population, the United States could potentially save an estimated \$200 million U.S. dollars during each general election cycle if it adopts a national voter registration system. A Pew Study found that Canada, using technology, spends less than 35 cents per voter for registration maintenance. Ninety-three percent of its population is registered to vote.⁴¹⁴ As a cost comparison, Oregon spent \$4.11 per active voter (\$7.67 per transaction) on its mail-in voting program in 2012.⁴¹⁵

Canadian election officials use information gained by over 40 different government agencies (both provisional and federal level) to add eligible citizens to the National Register.⁴¹⁶ This process is done through consent language on other agency forms, including forms submitted via the internet. Without requiring any effort on the part of the voter, election officials are able to update addresses in the National Register to keep the roster current. Canadian agencies that share information include the following:

- Canada Revenue Agency
- Immigration, Refugees, and Citizenship Canada
- National Defence
- Provincial and territorial driver's license agencies
- Provincial and territorial vital statistics agencies
- Provincial and territorial electoral agencies with permanent voter lists
- Postal agencies
- Voters' lists from recent elections in other Canadian jurisdictions⁴¹⁷

⁴¹⁴ PEW Center on the States, *Inaccurate, Costly, and Inefficient*, 2.

⁴¹⁵ PEW Center on the States, 2.

⁴¹⁶ PEW Center on the States, 5.

⁴¹⁷ Elections Canada, "Description of the National Register of Electors."

If the information shared is doubted at all, election officials send individuals pre-printed forms with postage-paid envelopes to verify information. Officials can cross-check information against multiple systems, build the voter rolls, continually keep addresses and name changes updated, and detect potential ineligible voters. Deceased voter records are automatically purged based on information provided by vital statistic agencies.⁴¹⁸ Corrections may also be made on Election Day (elections are spread over multiple days in Canada) to capture and verify information before the vote is counted.⁴¹⁹ Canadian voters can also go online at any time to check the status of their information in the National Register. As Canadian voters move from one location to another within Canada, they will update motor vehicle information and postal information. On paper or electronic forms, individuals have the opportunity to check a consent box to have these agencies share the update with other agencies, such as for the National Register for voters. In this manner, the voter does not have the burden of updating voter information. “Election officials can update the voter rolls continuously, using information that already exists on other government lists.”⁴²⁰ This opportunity saves money, increases efficiencies, and bolsters accuracy of the registration database.

Canada proactively seeks to prevent fraudulent voting while mitigating disenfranchisement. It adds eligible voters to the rosters using “carefully regulated data-sharing between government agencies.”⁴²¹ If discrepancies are found, the voters are contacted for verification, to include any questions of opting in for being placed on voter rolls, which keeps their voter registration lists clean and accurate.

This approach is growing. “Moreover, the number of countries relying on data-sharing to keep their voter rolls current is increasing, as governments re-evaluate and overhaul their approach to voter registration.”⁴²² Australia and Great Britain have started down a similar path to save costs and ensure accuracy in the voter rolls. In 1999,

⁴¹⁸ Rosenberg with Chen, *Expanding Democracy*, 7.

⁴¹⁹ Rosenberg with Chen, 7.

⁴²⁰ Rosenberg with Chen, 7.

⁴²¹ Rosenberg with Chen, 3.

⁴²² Rosenberg with Chen, 4.

Australia sent a delegation to Canada to study how data-sharing could enhance the integrity of the Australian election system.⁴²³

2. Considerations for a National Voter Registration List in the United States

The United States needs to ensure inclusiveness, convenience, and accuracy in voter registration lists. As Canada is geographically close to the United States, as well as culturally and economically related, its election strategies may be easily adopted by the United States. Canada has been able to achieve a comprehensive voter registration database in a relatively direct manner and made it successful in a few short years. It estimates to have gained back its investment after the first national election in the early 2000s.

The U.S. population is much larger than Canada's; building a database and ensuring accuracy will take time. The stakeholders (states, voters, advocacy groups) need to understand the advantages and commit to a long-term plan for implementation. The rewards will benefit the United States for years to come and will ultimately strengthen the integrity of the U.S. election system. If the United States were to adopt such a voter registration system, it would move from diversified, hard to manage systems to a unified system that leverages other systems to keep it maintained. Only 68 percent of U.S. citizens are estimated to be registered.⁴²⁴ Conversely, Canada enjoys a 93 percent enrollment rate for eligible voters.⁴²⁵

As in Canada, the states should remain vitally involved with the collection and maintenance of the voter information, according to the law of the land. By data-sharing with multiple state and federal systems, the voter information could be maintained in an efficient and cost-savings manner. The existence of a national system would require federal legislation, however, as well as careful and continual cooperation of federal and state officials.

⁴²³ Rosenberg with Chen, *Expanding Democracy*, 4.

⁴²⁴ Rosenberg with Chen, 1.

⁴²⁵ Rosenberg with Chen, 38.

To determine whether a national database is achievable in the United States, a review of the 10th Amendment is helpful. “The collection of information on vital events is a power delegated to the individual States. The Constitution of the United States of America provides that powers not specifically delegated to the Federal government nor denied to the States, are reserved to the States (Article X, Amendments).”⁴²⁶ Each state has civil laws that provide for a state civil registry system. Civil registries, like elections, are the responsibility of the states. The federal government can and has enacted legislation to authorize federal agencies to create and maintain national-level databases holding confidential information on residents of the United States. This information includes the Social Security Administration, the Internal Revenue Service, Department of State, and the U.S. Postal Service to name a few. These national databases have specific purposes for enhancing and sustaining interconnected state and federal programs. A similar framework could be established to create a singular national voter registration list.

To detect issues with the voter registration listings, election officials must be able to spot discrepancies. Catching discrepancies can be problematic in the United States where registration systems are so disparate and election officials do not have access to citizenship and vital records systems. For example, an election official in Missouri may not be able to verify if a registered Missouri voter was born in another U.S. state, as claimed. That same election official is not likely able to verify the naturalization of a foreign-born resident, either. Documents can be provided, but these may be fraudulent documents.

Creating a national voter registration list should be transparent to the voters, but it will be a striking difference for state officials and the federal agency or commission chosen to manage it. A basic structure could be similar to how Canada built its system, or perhaps modeled after ERIC, Crosscheck, or Catalist.

If a national voter registration list was compiled from each state and the District of Columbia, duplicative information could be matched and reviewed. Upon confirmation of

⁴²⁶ International Institute for Vital Registration and Statistics, *The Organization of the Civil Registration System of the United States*, Number 8 (Bethesda, MD: International Institute for Vital Registration and Statistics, 1980), 5.

duplication, the records could be merged or removed. The database could be crosschecked against numerous state and federal databases to make the list accurate and clean. Unlike the present methods for reaching out to each state’s vital records official, birth and naturalization records could be more readily verified by election officials.⁴²⁷ A centralized list would reduce the maintenance cost and the burden to state and local election officials. It would increase the accuracy of the collective voter registration list, and would ensure uniformity across the nation in conducting proper list maintenance.

“Fair elections are a public good.”⁴²⁸ The United States can learn from Canada, as well as other nations, and shore up voter identity and eligibility verification and increase confidence in elections. The Canadians have already demonstrated the effectiveness of these practices. It can happen in spite of the large population difference between Canada and the United States. Canada has a population 11 percent the size of the U.S. population.⁴²⁹ The same framework could still be applied, however. India manages to maintain a national registry for its 1.31 billion population of both citizens and non-citizens. Individuals are tied to their information via biometrics to keep information secure.⁴³⁰

Maintaining a voter registration list can run into the millions of dollars for state and local budgets between expenses of detecting inaccuracies, printing notification cards and mailing them, as well as processing mail and receiving undeliverable mail.⁴³¹ These challenges further support the notion that a robust, secure, and interoperable national voter registration list would be a cost-savings and add value to the states and to the

⁴²⁷ “Where to Write for Vital Records,” Centers for Disease Control and Prevention, National Center for Health Statistics, last updated September 19, 2017, <https://www.cdc.gov/nchs/w2w/index.htm>.

⁴²⁸ Sutter, “Detecting and Correcting Election Fraud,” 433.

⁴²⁹ “Population, Total,” World Bank, accessed January 13, 2018, <https://data.worldbank.org/indicator/SP.POP.TOTL>.

⁴³⁰ Aditya Madanapalle, “How Aadhaar Compares to Other Biometric National Identification Systems around the World,” First Post, April 5, 2017, <http://www.firstpost.com/tech/news-analysis/how-aadhaar-compares-to-other-biometric-national-identification-systems-around-the-world-3700543.html>.

⁴³¹ PEW Center on the States, *Inaccurate, Costly, and Inefficient*, 3; National Conference of State Legislatures, “The Canvass: The Cost of Inaccuracy: Voter Registration Examined.”

nation. The consolidation of the registries, while leveraging from local, state, and federal databases to keep the list clean can save money and enhance trust in U.S. elections.

B. A BIOMETRIC SOLUTION FOR IDENTITY VERIFICATION

At a time of low confidence in American elections, it is time to seek creative ways to shore up vulnerabilities and regain public trust. According to the National Conference of State Legislatures, at least half of the states are considering new technologies for ensuring free and fair elections due to election worries.⁴³² Using biometric technologies for increasing election integrity should be considered, as it is working well for other nations.

An inaccurate voter register can cause problems in the electoral process by raising doubts about the elections inclusiveness and outcome and by opening up avenues for fraud and manipulation. Many countries that face challenges in creating an accurate voter register are considering reforming their voter registration systems through the introduction of biometric technologies. Such reforms are aimed at increasing trust in the electoral process by enfranchising all eligible citizens and, at the same time, reducing various forms of electoral fraud, such as impersonation and multiple voting.⁴³³

Biometric screening has become increasingly critical in safeguarding the homeland and protecting programs. Biometrics, along with a national voter registration list, appears able to prevent the possibility of voter fraud crime in advance by a verification method that has shown to be highly secure, would prevent voter disenfranchisement by reducing the requirement for voter identification needed at the polling sites, and would enhance free and fair elections.

By using fingerprint technology, voters would no longer need an official identification card; they would simply press their fingers against a scanner to have their identity verified.⁴³⁴ With a highly mobile population, biometrics together with a national voter registration list will accommodate the relocation of voters and proper identification

⁴³² “The Future of Elections,” National Conference of State Legislatures, accessed September 3, 2017, <http://www.ncsl.org/research/elections-and-campaigns.aspx>.

⁴³³ Wolf et al., *Introducing Biometric Technology in Elections*, Introduction.

⁴³⁴ Lee, “Introducing Biometrics in the U.S. Voting Process.”

of an individual wherever they reside in the United States. Using biometrics could increase participation, add convenience, protect integrity, and bolster the accuracy of voter registration lists. Additionally, biometrics could pave the way for eventual online voting, including military personnel stationed abroad, and replace mail-in voting as a convenient voting option. The program may be able to embed a voting verification method that does not alienate minorities or poor, while ensuring verification processes are in place to protect against voter fraud.⁴³⁵

Exceptions will be required. Some individuals are not capable of providing fingerprints due to missing limbs or appendages. Waivers should be made for those whose prints are hard to take due to age, sickness, or other reasons where fingerprints are hard to gain. States adopting biometrics will also likely allow exceptions to the requirement, such as for religious objections to being photographed, for those having no identification documents due to a recent natural disaster, or for those with confidential listings due to being victims of domestic abuse or stalking.⁴³⁶ When these exceptions occur, policy should allow for several alternatives, to include other biographical or biometrics (such as photos with signatures) that would ensure the strongest capture of identifiers for the individual.

Despite the need for some exceptions, biometrics has long been utilized to enhance U.S. security by identifying individuals at ports of entry and across screening programs.⁴³⁷ Increased use of biometrics on college campuses, for banking transactions, phone and laptop access, driver's licenses and public benefits are paving the way to consumer acceptance. Many states currently use AFIS for employee credentialing and law enforcement purposes. The main purpose in the use of civil fingerprint identification systems is security, verification, and preventing multiple enrollments.⁴³⁸

⁴³⁵ Barry and Newman, "Could Fingerprinting Finish the Debate Over Voter ID Laws?"

⁴³⁶ National Conference of State Legislatures, "Voter Identification Requirements."

⁴³⁷ Department of Homeland Security, "Office of Biometric Identity Management Identification Services."

⁴³⁸ King, "Law Enforcement and Biometrics."

In most states, voter verification is currently confirmed through the visual inspection of common identification, for example, a driver's license. Instead of using a document you have (which are high-risk for fraud), or something you know (such as a password, which can be forgotten or stolen), a biometric verification program would allow individuals to use their unique physical feature, such as their fingerprints, face, or iris to verify who they are.⁴³⁹ Biometrics appears to be the next logical step in moving forward for accurate identity management in a secure, convenient, interoperable, and standardized way. As verifying identities is becoming increasingly more important in both the government and private sectors, this scalable capability can be adopted and implemented in a concerted way to meet identity verification needs. Biometrics can resolve the susceptibilities encountered when documents are hard to verify and those that are vulnerable to fraud.

Fingerprints, in particular, are used to reliably authenticate a person's claimed identity.⁴⁴⁰ The ridges of skin on the fingers form exclusive markers.⁴⁴¹ When printed and scanned, they can be tied to the same individual, despite spelling variations, the use of multiple names or dates of birth, as well as movement from one residence to another.

No two prints are identical [unless taken from the same individual]. Twins do not have identical prints. The left and right hand prints of a person are not identical. You can't tell a person's age, gender, or ethnicity from their fingerprints.⁴⁴²

Biometrics, coupled with corresponding biographic information, would allow merging and cleanup of multiple voter records created by those who moved often, who had legal name changes, or by those attempting fraud. According to the IDEA, "Biometric technology can significantly decrease opportunities for voting at multiple

⁴³⁹ Tracy V. Wilson, "How Biometrics Works," HowStuffWorks, November 11, 2005, <http://science.howstuffworks.com/biometrics.htm>.

⁴⁴⁰ Johnathan Strickland, "How Will Biometrics Affect Our Privacy?" HowStuffWorks, April 28, 2010, <http://computer.howstuffworks.com/biometrics-privacy.htm>.

⁴⁴¹ Tom Harris, "How Fingerprint Scanners Work," HowStuffWorks, September 24, 2002, <http://computer.howstuffworks.com/fingerprint-scanner.htm>.

⁴⁴² U.S. Agency International Development, "Biometrics in Elections."

sites in the same election.”⁴⁴³ It is a powerful anti-fraud tool and a great means for quick identity verification.

Fingerprint verification would be matching newly scanned prints against prints previously scanned at the time of registration. Specific fingerprint features would be compared, known as minutiae that consist of points and ridge lines.⁴⁴⁴ Highly complex algorithms are used to exam and compare fingerprint features within a biometric repository.⁴⁴⁵ The entire pattern does not have to be found in the repository to gain a match; but rather, a sufficient number of minutiae patterns have to be identical to gain a solid match.⁴⁴⁶ This process allows for tilting or skews of the fingers when the print was gained. Biometric reading systems can measure anywhere from 30 to 400 markers, and create an accordingly complex and unique key, called a fingerprint identification number (FIN).⁴⁴⁷

Over 45 nations have added biometrics to their voter registration requirements as a method for identifying voters, including Africa and Latin America. Some countries have been using biometrics in elections for over a decade.⁴⁴⁸ Bangladesh, after overcoming initial legislative challenges, successfully implemented a biometrics program for its elections that included registering over 80.5 million voters in just 11 months.⁴⁴⁹ Fiji, Mongolia, Nigeria, Uganda, Zambia and India, among other nations, are all successfully utilizing biometrics in elections. The Philippines is using biometrics to verify the identities of voters and prevent multiple registrations.⁴⁵⁰ Participation is mandatory and those wanting to have their vote counted must have registered their biometrics in their national system.

⁴⁴³ Wolf et al., *Introducing Biometric Technology in Elections*, 32.

⁴⁴⁴ Wolf et al., 32.

⁴⁴⁵ Wolf et al., 32.

⁴⁴⁶ Wolf et al., 32.

⁴⁴⁷ Richard Bergin, “Biometrics” (lecture, NPS Center for Homeland Defense and Security, Monterey, CA, July 1, 2006), Slide 5.

⁴⁴⁸ Wolf, et al., *Introducing Biometric Technology in Elections*, 17.

⁴⁴⁹ Wolf et al., 39.

⁴⁵⁰ Counter, “Biometrics Now Mandatory for Voting in the Philippines.”

Some of these nations issue barcoded cards after biometric information is captured, as card readers may be cheaper than fingerprint scanners. Some nations capture biometrics in the registration process, then use fingerprint scanners at the time of elections. A significant technological difference exists between these two methods in efficiencies, effectiveness, and cost. Of course, implementation challenges are likely affected by the quality of the machines purchased, rollout methods, and training.⁴⁵¹

Thousands of U.S. entities, both government and civilian, use biometrics for verification. Health, welfare, policing, courts, and banking institutions are starting to use biometrics to know who is who. Theme parks and universities are starting to use biometrics as well for security and safety reasons. These sectors use biometrics to secure data, prevent fraud, reduce expenses, and provide convenience to the employee or customer. Biometrics is being integrated into the daily life for many Americans. These industries could provide valuable lessons learned for adoption purposes including how to legally frame the programs. The United States can learn what opportunities might be worth further exploring and what lessons were learned.

While biometrics can go a long way in identity verification, by confirming identity; biometrics cannot confirm eligibility. It really must be a two-part solution. Nonetheless, based upon the known usages by thousands of governments and commercial entities, biometrics could possibly pave the way for singular thumbprint verification at the polls and eventual online voting.

Weaving a biometric program into elections will be a tremendous undertaking and will greatly impact all voters, election and government officials, and volunteer workers. Any new implementation may have both anticipated and unanticipated effects.⁴⁵² In particular, adding biometrics will adjust the way registrations and voter verifications occur.⁴⁵³

⁴⁵¹ Vibeghana, “Biometric ‘Wahala’ in Nigeria Election—Any Lesson for Ghana 2016?”

⁴⁵² Fischer, Garrett, and Whitaker, *State Voter Identification Requirements*, 18.

⁴⁵³ Wolf et al., *Introducing Biometric Technology in Elections*, 21.

A phased rollout or pilot programs should be used to change to the new procedures slowly. Officials should ensure that registration is accessible to all citizens, to include the disabled and impoverished. Sites should be set up at many accessible community centers, schools, hospitals, retirement homes, and colleges. The numbers of voters showing up to register should be anticipated so plenty of equipment and personnel are available to accommodate the registration process.

Careful communication and education is critical to such a major change in the process, with all stakeholders. A voter outreach plan needs to be in place, as well as the development of standard operating procedures. Clear messaging on the benefits and how the state plans to mitigate challenges and address concerns should be offered in advance of any changes. Voters need to understand the changes, as well as a phased rollout of new procedures. Good public education by both the state and federal entities that support elections will be extremely valuable. Requirements should be clearly and widely communicated, such as bringing identification for registration or to the polling sites, to prevent delays and disenfranchisement. Biometric identity management must be combined with clean voter registration listings based upon confirmation of voter eligibility through databases that can confirm residency, age, and citizenship.

Election workers and volunteers will need training and guidance to ensure a smooth implementation. Preparation is needed at the registration and polling sites for equipment issues, questions, and additional planning for polling site registration and increased provisional votes may be necessary. Election officials need to be prepared for contingencies should issues arise. If a voter cannot be found through biometrics or through a registration list on Election Day, a biometric registration with provisional voting must be accommodated. A good resolution program should be in place to review records and resolve challenges for eligibility or poor biometrics capture, both at a local and state level.

As biometric registration is introduced, the public may be swayed by perceptions. Clear communication is needed, as well as transparency for how the information is used and protected. The state and local election officials and the EAC can engage the public through a diverse use of dedicated online websites, information on each state and federal

election websites, brochures, digital toolkits to embassies, consulates, and military installations, posters, banners, videos, infographics, fact sheets, and possibly wallet cards can be effective outreach materials.⁴⁵⁴ People may avoid registration due to inconvenience. Officials should address religious beliefs and any anticipated cultural objections in advance of registration through robust and refined public information campaigns. Capturing the biometric data and reviewing documents takes time. Stakeholders should understand a plan accordingly.

Concerns about data security will likely be raised. Ensuring good security protections are in place is vital to protect the additional confidential information captured for the voter registration lists. This protection needs to be transparent and messaged, as well as exactly how voter information will be used and will not be used. The database should be protected both legally and technically.⁴⁵⁵ Fortunately, many examples of proper data security are readily available, and managers can rely on guidance from the National Institute of Standards and Technology (NIST), an international leader in technology security and practice.⁴⁵⁶

The use of biometrics for de-duplicating a voter registration list is common around the globe; most of these countries issue a biometric-based identification card to their voters to use on Election Day.⁴⁵⁷ It is uncommon for a nation to use biometrics for identify verification on Election Day.⁴⁵⁸ It is uncommon, but not untested. Both methods should be reviewed.

During the 2012 elections in Ghana, the biometric voter card-reading machines widely failed. They ended up extending voting to a second day, as a result, and stopped

⁴⁵⁴ Federal Voting Assistance Program, *2016 Post-Election Report to Congress* (Alexandria, VA: Federal Voting Assistance Program, 2017), 40, https://www.fvap.gov/uploads/FVAP/Reports/FVAP2016_Report_20170731_final.pdf.

⁴⁵⁵ Wolf et al., *Introducing Biometric Technology in Elections*, 22.

⁴⁵⁶ “Biometrics,” National Institute of Standards and Technology, updated July 13, 2017, <https://www.nist.gov/programs-projects/biometrics>.

⁴⁵⁷ U.S. Agency International Development, “Biometrics in Elections,” 12.

⁴⁵⁸ U.S. Agency International Development, 12.

the use of the card readers.⁴⁵⁹ More recently, all issues had been remedied and Ghanaians enjoyed a transparent and incident-free general election in December 2016, which bolsters its ranking as one of the strongest democracies in Africa.⁴⁶⁰

Although failure rates are found to be low in the use of biometrics for elections, technology, equipment, and humans can fail.⁴⁶¹ In reality, users need to anticipate software and hardware issues.⁴⁶² Risks need to be evaluated and redundancies put in place. Failures will definitely occur in capturing the biometrics, typographical errors made in the registration data entry, and false duplicates that must be worked through.

The quality of the equipment, the planning and implementation investment, and the level of training will be critical to overcoming these issues. Capturing all 10 fingerprints has been found to have lower failure rates than scanning a singular print.⁴⁶³ Systems that capture both fingerprints and facial photographs are more accurate than those only capturing one biometric element.⁴⁶⁴ Photo recognition programs have a higher failure rate than fingerprint biometrics. Contingency procedures should be ready in case issues occur at any point in the election lifecycle to prevent disenfranchisement and a reduction in confidence.

Biometrics have been successfully used for decades in many nations and industries for access control, policing and justice, border security, passports, citizenship and driver's license registration, and elections. "The industry sectors citing the highest levels of adoption of data analytics solutions are revenue and social service (81 percent and 80 percent, respectively), followed by border agencies (74 percent) and public safety agencies (62 percent)."⁴⁶⁵ Biometrics provides identity assurance, greater anti-fraud and

⁴⁵⁹ Vibeghana, "Biometric 'Wahala' in Nigeria Election—Any Lesson for Ghana 2016?"

⁴⁶⁰ Issifu, "Peaceful Elections in the December 2016 Polls."

⁴⁶¹ Wolf et al., *Introducing Biometric Technology in Elections*, 17–18.

⁴⁶² Wolf et al., 17.

⁴⁶³ Wolf et al., 18.

⁴⁶⁴ Wolf et al., 18.

⁴⁶⁵ Justin Lee, "Biometrics Changing the Way Governments Address Data Security, Privacy," Biometric Update, August 9, 2017, <http://www.biometricupdate.com/201708/biometrics-changing-the-way-governments-address-data-security-privacy>.

security for programs, increased efficiency in vetting processes, and high long-term stability for an identity verification means.⁴⁶⁶ A responsible and secure adoption of a biometric identity management program within the election infrastructure could equip state and local election officials to verify voter eligibility accurately, which enhances the reliability of the system that enables citizens to select national leaders. As embedding biometrics within elections is a substantial and long-term investment, careful consideration must be made.⁴⁶⁷

Biometrics provides tamper-resistant identity verification on Election Day. Officials can confirm identity. They can match identity with information confirming eligibility. As more biometrics are gained and verified, the quick biometric check at the polling station can actually speed the opportunity to vote. Once gained, the biometrics would not have to be updated, only the biographical information on addresses, which could be done by both voters, as well as confirmation through other systems, such as the U.S. Postal Service NCOALink.⁴⁶⁸ Biometric verification allows confidence that voters are who they say they are. Biometric verification could lead to a verifiable and secure means for online voting, as well, which makes it more convenient for voters and increases accessibility for all who are eligible.

C. SOLUTION PERFORMANCE MEASUREMENTS

Confidence is hard to measure, “Voters are the most confident when their candidate wins.”⁴⁶⁹ Does this viewpoint mean confidence in elections is subjective? Elections are by nature, highly partisan, contentious, and sensitive to perceptions.⁴⁷⁰ If the process is perceived as being weak or affected by fraud event, the results might not be accepted. At a minimum, perceptions can damage confidence when negative events

⁴⁶⁶ Simon Liu and Mark Silverman, “A Practical Guide to biometric Security Technology,” *IT Professional* 3, no. 1 (January/February 2001), <https://dl.acm.org/citation.cfm?id=613088>.

⁴⁶⁷ Wolf et al., *Introducing Biometric Technology in Elections*, 31.

⁴⁶⁸ National Conference of State Legislatures, “Voter List Accuracy.”

⁴⁶⁹ Stewart, “Thoughts on Voter Confidence and Election Reform.”

⁴⁷⁰ “The Canvass: States and Election Policy,” National Conference of State Legislatures, September 2017, <http://www.ncsl.org/research/elections-and-campaigns/voter-registration.aspx>.

occur. It is unclear whether confidence can be accurately measured and tested, but post-election surveys are a good start. Acceptance, easy registration, identity and citizenship verifiability, and few complaints of accessibility and time spent in line at the polling sites play into citizens having confidence in elections. Some obvious measurements of performance are increased voter confidence, easy registration, identity and citizenship verifiability, and few complaints of accessibility and time spent in line at the polling sites.

State voter registration lists need to be maintained and audits made public. As states have been entrusted with the substantial responsibility for ensuring integrity of the process and unrestricted access to citizens, more transparency is needed.⁴⁷¹

With regards to full adoption, some people will always be opposed to voter registration lists, any type of voter identification requirements at the time of voting, as well as any biometric requirement considered for adoption. Although it is likely that no one solution will please everyone, a need exists to find reasonable solutions that balance the need for providing eligible voters an equal chance to cast a ballot, while protecting the election process from abuse.⁴⁷²

Despite more use of biometric technology, some individuals will always be concerned about privacy, adoption challenges, and cost. A solid channel of communication is necessary between all levels of government and special interest groups to clear up any misconceptions and apprehensions. Program success comes from widespread use. For instance, if only half of the counties choose to participate within a state, the program would still have identity verification issues. The results from all counties participating within the state would ensure high-integrity results for the state. The public might eventually accept biometrics for the convenience, the integrity of identities, as well as elections. It is a practical move for ensuring the reliability and security of a critical system.

As states are responsible for elections within their state, each state must decide whether to support a national voter registration list and consider adopting a biometric

⁴⁷¹ Atkeson, "Election Data Transparency," 271.

⁴⁷² Fischer, Garrett, and Whitaker, *State Voter Identification Requirements*, 21.

identity management system as verification solutions. Adopting a national voter registration list or database could be built in a manner that Canada achieved. As ERIC and Crosscheck multi-state systems hold many records for many states, perhaps one of these could serve as the foundation for such an endeavor. Lessons can also be learned from the 2012 Pew Center on the States study where voter registration information for every state except North Dakota was pulled into the Catalist system to analyze.⁴⁷³

To adopt new biometric technology, including biometric scanners, the state's election board would be responsible for the lifecycle of registration with biometric inclusion, eligibility vetting and assessment, voter registration confirmation, revocation or violation issues, and information technology services related to the screening process. Identification of all logistical and technical requirements to facilitate an interoperable system is needed to ensure a transparent and responsible adoption.

For the states that embrace this technology, they could phase in a secure method for gaining biometrics over a two- to three-year span, to ease acceptance. The state would need to consider whether to capture all 10 fingerprints or only one or two. As stated earlier, using 10 fingerprints for identity verification improves the accuracy of identification, verses gaining only thumbprints, for instance. Having the 10 prints also improves interoperability with other verification systems, including federal and state systems that can help verify citizenship. Additionally, the state would need to determine whether to capture photos at this time for facial recognition to aid election workers and officials.

The actual time to gain the fingerprints electronically would take approximately 10 seconds per person. Another few minutes, however, would be needed to take photos and record the information from a voter registration card: full name, date of birth, and affirmation of citizenship. If voters are already registered, their biometrics could be linked to the biographical voter records at the time of the biometrics capture. They would have the chance to update pre-existing information, such as change of address or polling station location. It is also recommended voters continue being allowed to vote in

⁴⁷³ PEW Center on the States, *Inaccurate, Costly, and Inefficient*, 1.

elections to capture their biometrics on Election Day and a statement affirming their U.S. citizenship. Once fingerprint biometrics is captured, it is sustainable and can be used throughout the voter's lifetime for verification unless the voter's biometric finger(s) are injured in some fashion. If some type of injury happens, accommodations should be made, such as using facial recognition instead.

The time it would take for verification needs to be considered. As hardware becomes more powerful and faster, time is less of an issue, but one that needs to be considered carefully when planning.⁴⁷⁴ Once verified, the voter could then proceed to the voting area. If the fingerprints did not match, the verification would be rejected and the voter would need to be considered for a provisional vote where the identity could be further reviewed. The state could decide to permit photo identification to be presented and checked against the voter registration list. If no record of the individual exists in the voter registration list by either biometrics or by using photo identification, then the state should offer voter registration to capture biometrics and biographic to allow for a provisional vote. Citizenship documentation should be provided at that time by the voter.

The voters' identity would not, could not, be tied to their actual vote in any way. The only exception would be for provisional voters who had not registered prior to Election Day. Currently, provisional voter applications capture biographic information on the same form as their actual vote. The provisional ballot serves as a registration card. Biometrics could be captured at the time the provisional vote is made. Said voters would need to affirm they are U.S. citizens to be allowed to vote. If they were later found not to be an eligible voter, they could be found in violation of voter laws.

Should voters move within a state, they could simply provide the election commission an electronic or paper request that provides an updated address. The same could be done with a name change and provide the proof of an official change of name, such as through marriage, to the state election commission. Biometrics, once obtained, would not be needed again.

⁴⁷⁴ U.S. Agency International Development, "Biometrics in Elections," 5.

Fingerprint biometrics has a number of advantages. Physical features are much harder to fake than identity cards. People cannot forget their fingers like they can a password, and it is not possible to misplace them like individuals can with an identification or access card.⁴⁷⁵ Although an initial cost is incurred for equipment and imbedding the new technologies, training, implementation, the cost may be less than court challenges and mistrust in the integrity of election results. De-duplication of the voter registration list to aid in maintenance is highly effective when using electronically gained fingerprint biometrics.⁴⁷⁶

As effective as fingerprint biometrics is, scanners and equipment can fail. Fingers should be clean when fingerprint biometrics is captured, both at the point of registration and at the time for scanning on Election Day. Despite machinery and training challenges, biometric systems and fingerprint scanners are a secure, sustainable and effective means of identification.⁴⁷⁷ As part of its historical role, the EAC would be vital in providing assistance for assistance on all things relating to elections, including support for new legislation, standards for technology in compliance with ISO 9001 certification and NIST, best practices for collecting, storing, safeguarding data, implementation and adoption, as well as technology training.⁴⁷⁸

⁴⁷⁵ Harris, “How Fingerprint Scanners Work.”

⁴⁷⁶ U.S. Agency International Development, “Biometrics in Elections,” 11.

⁴⁷⁷ U.S. Agency International Development, 11.

⁴⁷⁸ “Committee Approves Next Generation of Voting Systems Guidelines,” Election Assistance Commission, September 12, 2017, <https://www.eac.gov/news/2017/09/12/committee-approves-next-generation-of-voting-system-guidelines/>.

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VII. CONCLUSION AND POLICY RECOMMENDATIONS

General elections have vastly improved since the contentious 2000 elections. New laws, such as HAVA, better equipment, more accountability, and the creation of the EAC, which promotes continuous election improvement, have greatly enhanced election administration and integrity. Through HAVA, over two billion U.S. dollars was appropriated to replace outdated equipment and support process improvement.⁴⁷⁹ Still, more work needs to be done, specifically in the arena of voter verification enhancements.

A. CONCLUSIONS

This study presents several key findings:

- Voter fraud can exist due to established systemic weaknesses in the verification processes.
- Ineligible voters may be voting; the potential exists.
- It is impossible to ascertain the pervasiveness of voter fraud based upon the current tools used.
- Increased transparency, comprehensive reporting, and scientific analysis are needed on voter registration list assessments. The public deserves complete election data and nonpartisan review.
- Any degree of voter fraud may affect the outcome of elections or the confidence in them.
- Uncertainty causes diminished confidence in elections.
- Diminished confidence in elections erodes democracy.
- A national voter registration database would enhance the ability to verify voter identity and eligibility, deterring voter fraud.

⁴⁷⁹ Election Assistance Commission, “Help America Vote Act.”

- The use of biometrics for voter identity verification can ensure knowing who is who and complement voter verification.
- Biometrics is an innovative technology that could enable secure online voting opportunities. Biometric technologies could enhance participation.

It is clear the United States needs to improve the registration verification process and boost information sharing across states and federal databases while streamlining the opportunity for citizens to vote, to have that vote counted, and simultaneously, protect the election process from fraud.⁴⁸⁰ This improvement can be achieved by using proven matching techniques and secure technology. Embedding the use of a national voter registration list and biometric technology into the voter verification program for elections can greatly enhance the integrity of elections and protect U.S. citizens' right to vote, while protecting the privacy of voters.

The implementation of a national voter registration list to improve accuracy and gain efficiencies, as well as the deployment of biometric capabilities for voter verification and ease of identification at the polling stations, will show the public the commitment to a sensitive program of state and national interest. It will demonstrate a quality registration list is essential and it will prove the value of ensuring accessibility to all citizens, while preventing fraud and reduce costs to local and state governments.

The U.S. elections are now deemed critical infrastructure, which helps gain valuable protections against high-tech attacks.⁴⁸¹ By safeguarding other vulnerable areas, the United States protects itself against non-technical, man-made threats as well. The continued investment towards election integrity and protection proves commitment to a program of vital interest. The real added value is stakeholder trust and confidence.

Voter verification modernization enhances the ability to ensure all eligible voters are on the rolls and they will have no challenges with voting come Election Day. The new system must be sustainable, mitigate fraud, and reduce the burden on the voter.

⁴⁸⁰ National Conference of State Legislatures, "Voter Identification Requirements."

⁴⁸¹ Election Assistance Commission, "Elections—Critical Infrastructure."

Increasing voter verification within a state’s election process can prevent or mitigate voter identification fraud and multiple voting schemes in an effort to protect the right to vote better for U.S. citizens and enhance election integrity. The nation must do it smartly, however, by mitigating the burden on the voter to register, increasing public satisfaction, and promoting a belief in the legitimacy of the election outcome.

Using a national voter registration list and biometric technology can go a long way to modernizing the voter registration process, preventing voter identify fraud, preventing the suppression for eligible voters, and moving towards a secure form of online voting. Online voting has been found to result “in more complete and accurate voter rolls.”⁴⁸² Utilizing technology, such as biometrics and a national database, will not be able to shore up all vulnerabilities, most specifically human manipulation and corruption. Careful laws, policies, best practices, and enforcement of the laws must be in place to prevent these issues.

The most important element in achieving credible and accepted elections is trust. Trust is achieved through transparency and inclusion. Notably all stakeholders must embrace inclusion and participate actively.⁴⁸³

It is important to note that biometric technology cannot solve all problems with voter registration rates or voter turnout, and implementation may be challenging initially. It would take a number of years for a nation as large as the United States to adopt and implement a national voter registration database and a biometric system to enhance election integrity. Still, it appears to be a worthwhile investment. The Census Bureau anticipates the U.S. population will double by 2050. Implementing methods to verify individuals and their eligibility accurately will place the United States in a better position moving forward.

⁴⁸² McCormack, *Democracy Rebooted*, 3.

⁴⁸³ U.S. Agency International Development, “Biometrics in Elections,” 14.

B. POLICY RECOMMENDATIONS

- Recommend state and local election officials mandate routine local and state audits, assessments, and reports on potential or confirmed voter fraud instances and how each instance was handled.
- Recommend state and local election officials clear the way for researchers to have timely access to comprehensive voter registration list audit results.
- Recommend states move to a national voter registration list as an immediate aid for increasing integrity, leveraging from shared systems, and saving monies. This move to such a list should be supported through federal legislation and managed by an appropriate agency.
- Recommend election officials study using biometrics as a possible solution for voter verification, which mitigates the need for voter identification at the polls while paving the way forward for online voting.
- Recommend REAL ID Act requirements for proof of U.S. citizenship status be expanded to meet the proof of citizenship used by Department of State for passport eligibility.
- Recommend state election officials roundtable and develop a standard set of voter list data elements, formatting, and matching best practices as advised by NIST, so information could be placed in a national voter registration list. If no national list is adopted, this standardization could at least facilitate interoperability for lists to be shared across states and potentially with federal databases to enhance list maintenance.
- Recommend all state vital birth records be made accessible to state and local election officials through ERIC and Crosscheck, or made interoperable with a national voter registration list. Ensure all state vital birth and death records be captured electronically in a timely manner with

either a scanner version of the certificates being available, or the location of a paper-copy be identified for further verification.

- Recommend states provide REAL ID identification cards free for non-drivers and copies of vital records free for those on state public benefits to ensure accessibility. Recommend REAL ID cards distinguish between citizens and non-citizens similar to requirements North Dakota established in its state code.
- Recommend DHS USCIS enhance the SAVE program to ensure states can submit multiple identifiers for searching, to strengthen voter identity and eligibility verification, as well as allow batch processing to increase efficiencies, and as a result, build confidence in elections.
- Recommend the DOJ routinely study and report on local, state, and federal election and voter fraud crimes to provide transparency to the American public.

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APPENDIX A

This appendix shows the voter registration survey form used for this thesis.

VOTER REGISTRATION SURVEY STATE NAME:

Thank you for participating in this research with the Naval Postgraduate School, Center for Homeland Defense and Security. The purpose of this survey is to gain a better understanding of current voter registration processes by state. Survey respondents should work with their state election commission or board and have a solid understanding of the state's voter registration requirements and law. Your participation in this survey is completely voluntary and all of your responses are anonymous. None of the responses will be connected to identifying information. It should take approximately 20 minutes to complete this survey.

Survey Questions						
1. What documents are <i>required</i> to show proof of in terms of age and residency to become a registered voter?	Driver's License	Birth Certificate	No ID Needed	Naturalization Certificate	Other State Approved Documents	
Check all that apply.						
Other Documents Permitted:						
2. How does the state verify citizenship for voting?	Birth Certificate	Passport	Naturalization Certificate	Information Systems	Affirmation Only	
Check all that apply.						
Other Methods Used:						
3. How often does your state perform statewide voter roll maintenance (address changed, name changes, additions and verifications)?	In the months preceding an Election	Quarterly	Bi-Annually	Annually	Continuously	
Check all that apply.						
Other Methods Used:						
4. What resources does your state use for managing the statewide voter roll?	ERIC	Cross Check	State or County Government Databases	Federal Databases	Death Index	Mail Out Letters or Postcards
Check all that apply.						
Specify types of databases used, if any:						
Other Methods Used:						
5. What occurs when a non-citizen, an individual living in a different state, or otherwise ineligible person is detected and confirmed during voter registration or maintenance?	Individual is Contacted	Individual is Flagged* in the List	Individual is Removed from the List	Individual is Removed from the List		
Check all that apply.						
Other Methods Used:						
6. If your state offers mail-in registration and mail-in voting, does your state check identification and at what point?	Yes. The voter is required to show ID prior to a vote being counted.	Yes. The voter submits a copy of their ID with their registration form.	Yes. The voter submits a copy of their ID with their ballot.	No identification is required for my state.		
Check all that apply.						
Other Methods Used:						
Who prosecutes voter fraud in your state?	County	State	Federal			
Check all that apply.						
Other Prosecutorial Considerations:						

*Archived or highlighted in some manner to separate this record from valid registrations.

Additional Explanations:

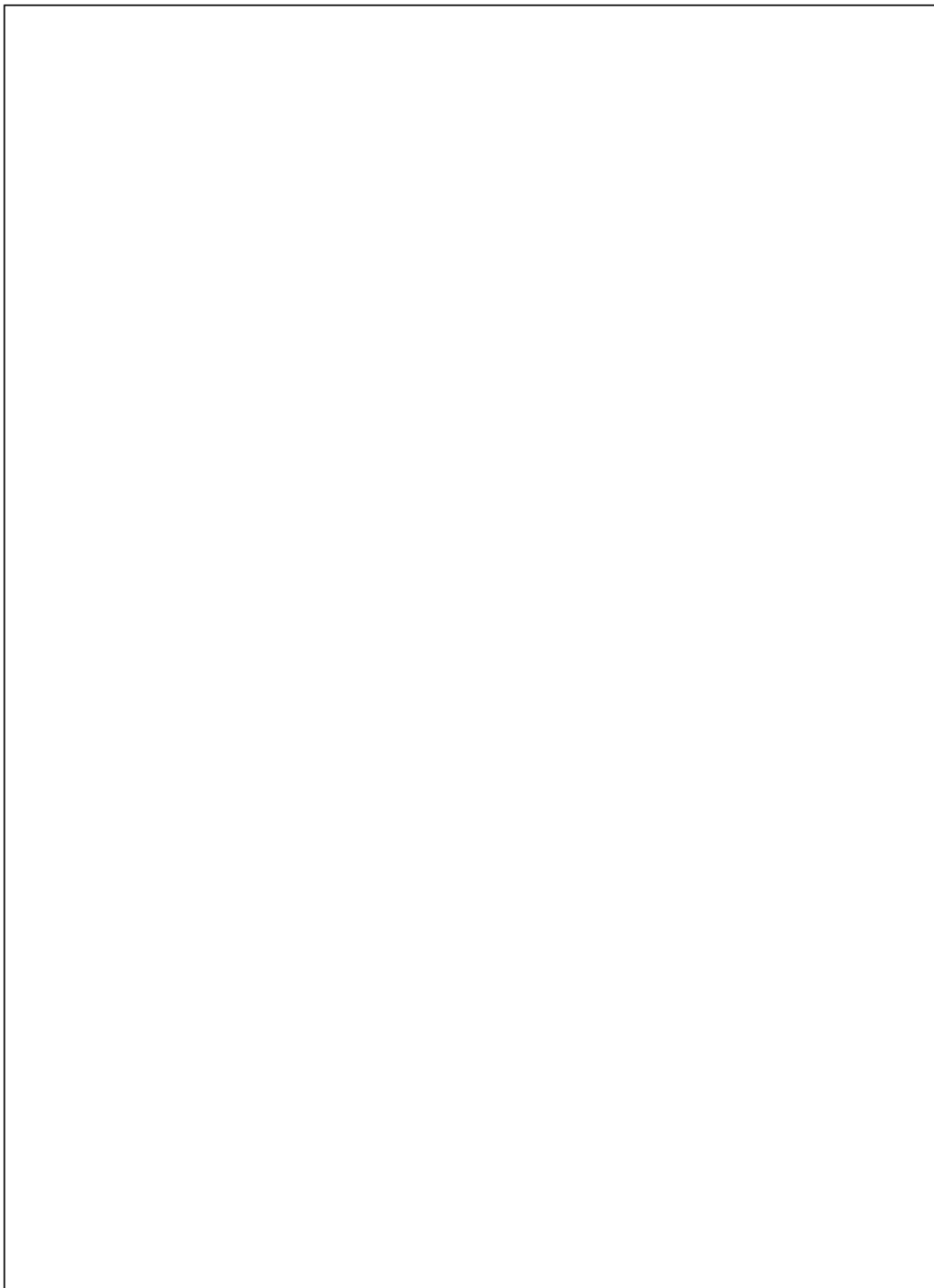
A large, empty rectangular box with a thin black border, occupying most of the page below the 'Additional Explanations:' label. It is intended for providing further details or clarifications related to the survey form.

Figure 5. Voter Registration Survey Form.

APPENDIX B

This appendix presents several tables of the responses to the state surveys.

Table 8. What Documents Are Required to Show Proof of in Terms of Age and Residency to Become a Registered Voter?

State	Driver's License	Birth Certificate	No ID Needed	Naturalization Certificate	Other State Approved Documents
DE ¹	✓	✓		✓	✓
GA ¹⁰					✓
HI ¹³	See footnote.				
IA ⁶			✓		
ID ³	✓		✓		✓
IL ⁴	✓				✓
KS ⁵			✓		
LA ¹¹	✓	✓			✓
MA ²			✓		
MD			✓		
MS			✓		
MT			✓		
ND					
NE ⁷			✓		
NJ			✓		
NY ¹⁴	See footnote.				
RI ¹²	See footnote.				
SC	✓				✓
UT			✓		
VA			✓		
WA			✓		
WI ⁹	See footnote.				
WV ⁸			✓		
WY				✓	

Footnotes:

1	Delaware accepts any form of identification that confirms age and residency. Most of their voter registrations come from DMV, so a driver's license is the most common form. Voters who have not provided ID at the time of registration must show ID at the polling place before voting. These names are marked on the poll list.
2	Massachusetts applicants are required to provide certain information, just not show ID as noted in this question. Information regarding voter registration requirements can be found at the state website at: http://www.sec.state.ma.us/ele/elevf/howreg.htm
3	Proof of residency is only required for Election Day registration in Idaho. The state requires a photo ID and a document with name and residence address printed on it, such as a bank statement, utility bill, etc.
4	Illinois may utilize the last four digits of individuals' social security number, verify by utility bill, bank statement, paycheck or government check.
5	In Kansas, registration is made with affirmation of eligibility, under penalty of perjury.
6	In Iowa, no documents are required to register to vote using paper forms.
7	Nebraska is the only state without any form of voter registration.
8	In West Virginia, no ID is needed; the applicants must fill out the voter registration and sign it.
9	In Wisconsin, no proof of age is required. Proof of residence must be shown using one of 12 types of documents permitted under the statutes.
10	In Georgia, a multitude of documents may be presented when registering to vote. See O.C.G.A. 21-2-220 and O.C.G.A. 21-2-417.
11	In Louisiana, [voter applicants] may use any documentation that establishes applicants' identity, age, and residency.
12	No response from Rhode Island on this question.
13	In Hawaii, voters initially registering to vote by mail are required to submit an acceptable form of ID pursuant to 52 U.S.C. 21083. Pursuant to Hawaii Revised Statute (HRS) §11-15(a) Any person qualified to and desiring to register as a voter in any county shall make and subscribe to an application in the form of an affidavit. The affidavit shall contain the following information: (1) Name; (2) The applicant's Hawaii driver's license number or Hawaii state identification card number; provided that: (a) If no driver's license or identification card has been issued to the applicant, the last four digits of the applicant's social security number; and (b) If no social security number has been issued to the applicant, an election official or county clerk shall assign the applicant a unique identification number for voter registration purposes and enroll the applicant in the State's computerized voter registration list, if any; (3) Date of birth; (4) Residence, including mailing address; (5) That the residence stated in the affidavit is not simply because of the person's presence in the State, but that the residence was acquired with the intent to make Hawaii the person's legal residence with all the accompanying obligations therein; and (6) That the person is a citizen. Note: The above section will be effective as of January 1, 2018. Should you wish to refer to the current law, please visit the following link: http://www.capitol.hawaii.gov/hrscurrent/Vol01_Ch0001-

	<p>0042F/HRS0011/HRS_0011-0015.htm</p> <p>Additionally, pursuant to HRS §11-15(b) the applicant shall swear to the truth of the allegations by self-subscribing affirmation in the affidavit on application for voter registration or other form prescribed by the chief election officer. Unless contested by a qualified voter, the clerk may accept, as prima facie evidence, the allegation of the applicant in information required in the affidavit in subsection (a)(5). In any other case where the clerk shall so desire or believe the same to be expedient, the clerk may demand that the applicant furnish substantiating evidence to the allegations of the applicant's application.</p>
14	<p>In New York State, an ID is needed only to verify the individuals are a person; not [used] to register. IDs need to be verified before first time voting.</p>

Table 9. How Does the State Verify Citizenship for Voting?

State	Birth Certificate	Passport	Naturalization Certificate	Information Systems	Affirmation Only
DE	✓	✓	✓		✓
GA				✓	✓
HI					✓
IA ³	See footnote.				
ID					✓
IL					✓
KS ¹	✓	✓	✓	✓	
LA					✓
MA					✓
MD					✓
MS				✓	
MT					✓
ND ⁴				✓	
NE					✓
NJ					✓
NY					✓
RI					✓
SC					✓
UT ²	See footnote.				
VA					✓
WA					✓
WI					✓
WV					✓
WY				✓	

Footnotes:

1	The State of Kansas has a list of 13 acceptable documents (www.gotvoterid.com).
2	Utah verifies the individual's social security number with the Driver License Division.
3	In Iowa, citizenship is not verified except by oath when a voter registers.
4	Nebraska utilizes a ND Driver's License, a ND Non-Driver's ID (offered free to anyone who does not have an ID), or a tribal ID from one of the tribes in North Dakota. The ID provided must provide name, current residential address, and date of birth. If the ID provided is not current or is missing one of these pieces of information, it may be supplemented by a current utility bill, a current bank statement, a check issued by a federal state or local government, a paycheck, or a document issued by a federal, state or local government. If not sufficient for any voter, these individuals may mark a ballot, which is then set aside until the individuals can provide the necessary ID or supplemental information if necessary. See NDCC § 16.1-01-04.1 (http://www.legis.nd.gov/cencode/t16-1c01.pdf) for the specifics in the law.

Table 10. How Often does Your State Perform Statewide Voter Roll Maintenance (Address Changed, Name Changes, Additions and Verifications)?

State	In the months preceding an election	Quarterly	Bi-Annually	Annually	Continuously
DE					✓
GA ⁴			✓		✓
HI					✓
IA ²	See footnote.				
ID					✓
IL					✓
KS		✓	✓	✓	✓
LA ⁵				✓	
MA ¹					✓
MD ⁷					✓
MS					✓
MT					✓
ND ³	See footnote.				
NE					✓
NJ					✓
NY					✓
RI					✓
SC					✓
UT					✓
VA					✓

State	In the months preceding an election	Quarterly	Bi-Annually	Annually	Continuously
WA					✓
WI					✓
WV					✓
WY					✓

Footnotes:

1	In Massachusetts, voter registration is maintained and updated by local election officials in each of the 351 municipalities. On a daily basis, they process voter registration applications, changes of address forms, delete voters who have confirmed in writing they no longer reside in the municipality, delete voters who have died, and remove voters who have registered to vote in another jurisdiction. The State Election Office maintains the physical database in which the voter records are stored and provides technical support to the local election officials. As part of that support, the State Office performs internal audits on the data including cross referencing with death records and running potential duplicate checks. The results are provided to the local election officials for verification and action, when appropriate.
2	In Iowa, the frequency of maintenance depends on the type of maintenance (see Iowa Code 48A).
3	Nebraska is the only state that does not register voters.
4	In Georgia, some processes (deceased voters, felons, mentally incompetent) are continuous.
5	Louisiana conducts an annual canvass of the rolls, plus maintenance is done anytime the state receives notice of a change in writing by the voter, by a place of return mail, by notice of registration in another state, and monthly for deaths and felons.
6	In Rhode Island, voter registration lists are continuously updated up until the voter registration deadline.
7	In Maryland, the state utilizes ERIC, deceased listings, address changes, and information from jury commissions to update the roster continuously.

Table 11. What Resources Does Your State Use for Managing the Statewide Voter Roll?

State	ERIC	Cross Check	State or County Government Databases	Federal Databases	Death Index	Mail Out Letters or Postcards
DE	✓		✓		✓	✓
GA			✓	✓	✓	✓
HI			✓	✓	✓	✓
IA ⁸		✓				✓
ID ²		✓	✓			✓
IL ³	✓	✓				
KS ⁴		✓	✓	✓	✓	✓
LA	✓	✓	✓	✓	✓	✓

State	ERIC	Cross Check	State or County Government Databases	Federal Databases	Death Index	Mail Out Letters or Postcards
MA ¹					✓	✓
MD	✓		✓		✓	✓
MS		✓	✓	✓	✓	✓
MT			✓	✓	✓	✓
ND ⁹	See footnotes.					
NE ⁷		✓	✓	✓	✓	✓
NJ ⁵			✓		✓	✓
NY ¹²			✓			✓
RI ¹¹	✓		✓		✓	✓
SC		✓	✓		✓	✓
UT ⁶	✓		✓		✓	✓
VA		✓	✓		✓	✓
WA	✓		✓		✓	✓
WI	✓		✓	✓	✓	✓
WV	✓					
WY			✓			✓

Footnotes:

1	In Massachusetts, each city and town conducts an annual, called the street listing. This census is mailed to every household, the results of which are the basis of the list maintenance process. Voters who fail to return their street listing is sent a confirmation notice and placed on the inactive voter list in accordance with the NVRA. Massachusetts has participated in CrossCheck, but found it unhelpful since most other jurisdictions are unwilling or unable to provide any further information that would be necessary to remove a voter from the list. Massachusetts is interested in participating in ERIC, but legislation is necessary, which is pending.
2	Idaho state death lists and the list of individuals currently serving a felony conviction is used for maintenance. Counties also use jury list information, death notices, obituaries, etc.
3	In Illinois, the local election authorities would make the final determination on voter status.
4	Kansas uses additional databases, such as the Department of Vital Statistics, Department of Corrections, and the National Change of Address for registry maintenance. Additionally, it utilizes jury list notifications.
5	In New Jersey, the Motor Vehicle Commission and court databases are also utilized to maintain the voter registry.
6	In Utah, election officials receive information from Vital Statistics on death records. The prison systems send information on incarceration records.
7	Nebraska also utilizes the National Change of Address list to maintain its voter registry.
8	Iowa utilizes death records to maintain the voter list, and each county mails out letters or postcards to the voters.
9	North Dakota is the only state without any form of voter registration.
10	Louisiana has access to CrossCheck; however, it has not acted on the data since joining ERIC. It connects with the federal social security administration's database for verification.
11	Rhode Island utilizes voter registration database duplicate reports, and it also gains monthly reports from the RI Department of Health death records and the RI adult Correction Institution felon incarceration and release records.
12	New York State also utilizes Health Department death records, conviction records, and National Change of Address records.

Table 12. What Occurs When a Non-citizen, an Individual Living in a Different State, or Otherwise Ineligible Person Is Detected and Confirmed during Voter Registration or Maintenance?

State	Individual is Contacted	Individual is Flagged* in the List	Individual is Removed from the List
DE	✓		
GA ⁶	See footnote.		
HI	✓		
IA ⁴	See footnote.		
ID ²	✓		✓
IL ³	✓		
KS	✓	✓	✓
LA ⁷	✓		
MA ¹	See footnote.		
MD	✓	✓	✓
MS	✓		✓
MT	✓	✓	✓
ND ⁵	See footnote.		
NE	✓		✓
NJ	✓		✓
NY	✓	✓	
RI	✓	✓	✓
SC	✓		✓
UT			✓
VA	✓		✓
WA	✓	✓	✓
WI	✓	✓	
WV	✓		✓
WY ⁹	✓	✓	

Footnotes:

1	<p>Massachusetts responded that this question was too difficult to answer as each scenario could have different procedures. If people indicated that they are not a citizen and they are registered to vote, it is usually the voters who asks to be removed as they did not realize they had registered. If voters have moved to another state, the only way they can be removed is if they confirm in writing they have moved or if they re-register in another jurisdiction and that jurisdiction notifies the local election officials of the previous residence. Massachusetts also receives notices of felony convictions, which they provide to the local election officials to remove any voters who are currently</p>
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	incarcerated for a felony conviction.
2	Verification is completed and then listings are turned over to the County Prosecutor for investigation.
3	In Illinois, the county election authority would contact the individual, not the state.
4	In Iowa, the voter is made inactive in most cases; however, non-citizenship is a different process than non-residency.
5	Nebraska is the only state without any form of voter registration.
6	In Georgia, different responses are possible, but some form of hearing or investigation is common. Voters are only removed in accordance with the law.
7	Louisiana also has a 2-part process with a 30-day pre-challenge letter to notify the voters. If no action is taken, the 21-day challenge letter is issued. This letter notifies the individuals that they must appear and show cause why they should not be canceled when they receive information that they have moved and are registered to vote in another state.
8	In Rhode Island, the local BOCs investigate and may contact the voters if needed. If it is determined the individuals do not belong on the list, they may be removed. Possible criminal cases may be forwarded to the police for investigation.
9	In Wyoming, if an out-of-state cancellation is received, the voter is inactivated.
10	In Maryland, the individuals are given two weeks to respond; after that the individuals are removed from the roster.

Table 13. If Your State Offers Mail-In Registration and Mail-In Voting, Does Your State Check Identification and at What Point?

State	Yes. The voter is required to show ID prior to a vote being counted	Yes. The voter submits a copy of their ID with their registration form.	Yes. The voter submits a copy of their ID with their ballot	No identification is required for my state.
DE		✓	✓	
GA		✓		
HI ¹⁰	See footnote.			
IA ⁴	See footnote.			
ID ²	See footnote.			
IL	✓			
KS ³	✓		✓	
LA ⁷	See footnote.			
MA ¹	✓			

State	Yes. The voter is required to show ID prior to a vote being counted	Yes. The voter submits a copy of their ID with their registration form.	Yes. The voter submits a copy of their ID with their ballot	No identification is required for my state.
MD	✓	✓	✓	
MS	✓			
MT	✓			
ND ⁵	See footnote.			
NE	✓	✓		
NJ				✓
NY ¹¹	See footnote.			
RI ⁸	✓			
SC	✓	✓		
UT	✓			
VA ⁹	✓	✓		
WA	✓	✓	✓	
WI ⁶	✓			
WV				✓
WY		✓		

Footnotes:

¹	Mail-in voter registration is required by NVRA. In Massachusetts, people applying by mail must include their driver's license number and if they do not have a driver's license, the last four digits of their social security number. If the ID number cannot be verified or the applicant states on the form that they do not have either ID, they are flagged to show identification the first time they vote. The requirement to show identification is printed on the acknowledgement notice they receive upon registering.
²	In Idaho, if individuals validate against the DMV or SSA, they are not required to show photo ID before voting via a mail-in absentee ballot.
³	In Kansas, people may also supply a driver's license number or non-driver identification number on the ballot application. The number will be verified before a ballot is issued.
⁴	In Iowa, the voters must include a driver's license number or social security number, which is then verified.
⁵	Nebraska is the only state without any form of voter registration.
⁶	In Wisconsin, the voters submit a copy of the ID when first requesting an absentee ballot by mail.
⁷	In Louisiana, the voters are required to vote in person the first time to verify identity, either through a photo ID or voter ID affidavit.
⁸	In Rhode Island, voters are asked to provide driver's license numbers and social security numbers prior to voting. A photo ID is required for in-person voting. If a mail in registrants vote by mail and does

	not provide a driver's license number or social security number, they must provide identification before their ballot is counted.
9	In Virginia, the voters could submit a copy of their ID with their absent voter ballot application as well.
10	In Hawaii, voters initially registering to vote by mail are required to submit an acceptable form of ID pursuant to 52 U.S.C. 21083. For mail-in voting, signatures on application documents and ballot return envelopes are compared against the signature contained in an authenticated document for the corresponding voter.
11	In New York State, first time registrants must have their IDs verified before voting. It can be accomplished in a number of ways.

Table 14. Who Prosecutes Voter Fraud in Your State?

State	County	State	Federal
DE		✓	
GA	✓	✓	✓
HI	✓		
IA	✓	✓	
ID	✓		✓
IL	✓		
KS	✓	✓	✓
LA ³	✓	✓	✓
MA ¹	See footnote.		
MD	✓	✓	✓
MS	✓	✓	✓
MT	✓	✓	✓
ND	✓	✓	
NE	✓	✓	✓
NJ	✓	✓	
NY	✓	✓	
RI ⁴	See footnote.		
SC	✓	✓	
UT	✓	✓	
VA	✓	✓	
WA	✓		
WI	✓		
WV		✓	✓
WY	✓		

Footnotes:

¹	In Massachusetts, the state attorney general, the district attorney, or the U.S. attorney could prosecute violations of election law.
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2	Georgia elections are generally regulated by the State Board of Elections (SEB). The SEB is the usual source of sanctions (civil penalties only) for election violations, but violations may also be prosecuted in county and federal court. It is rare for criminal prosecutions to occur, but it happens in some cases.
3	In Louisiana, the County District Attorney generally prosecutes voter fraud. The DA may recuse to the Attorney General. If the election is federal, the person may be federally prosecuted.
4	In Rhode Island, investigations are conducted by local boards of canvassers/Board of Elections and any case of voter fraud is handled by the state police/Attorney General.

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APPENDIX C

This appendix shows the status of compliance with the REAL ID Act by state.

Table 15. Status of Compliance for Real ID Act.

State	REAL ID Act State Status (https://www.dhs.gov/real-id)	Difference between citizen and non-citizen card? YES, NO, or unknown
AK	Extension	unknown
AL	Compliant	unknown
AR	Compliant	unknown
AZ	Compliant	unknown
CA	Extension	unknown
CO	Compliant	unknown
CT	Compliant	unknown
DC	Compliant	unknown
DE	Compliant	unknown
FL	Compliant	unknown
GA	Compliant	unknown
HI	Compliant	unknown
IA	Compliant	unknown
ID	Compliant	unknown
IL	Under Review for Extension	unknown
IN	Compliant	unknown
KS	Compliant	unknown
KY	Extension	unknown
LA	Under Review for Extension	unknown
MA	Extension	unknown
MD	Compliant	unknown
ME	Extension	unknown
MI	Under Review for Extension	unknown
MN	Extension	unknown
MO	Under Review for Extension	unknown
MS	Compliant	unknown
MT	Extension	unknown
NC	Compliant	unknown
ND	Extension	Yes

State	REAL ID Act State Status (https://www.dhs.gov/real-id)	Difference between citizen and non-citizen card? YES, NO, or unknown
NE	Compliant	unknown
NH	Extension	unknown
NJ	Extension	unknown
NM	Compliant	unknown
NV	Compliant	unknown
NY	Under Review for Extension	unknown
OH	Compliant	unknown
OK	Extension	unknown
OR	Extension	unknown
PA	Extension	unknown
RI	Compliant	unknown
SC	Extension	unknown
SD	Compliant	unknown
TN	Compliant	unknown
TX	Compliant	unknown
UT	Compliant	unknown
VA	Extension	unknown
VT	Compliant	unknown
WA	Extension	unknown
WI	Compliant	unknown
WV	Compliant	unknown
WY	Compliant	unknown

LIST OF REFERENCES

- ACE, The Electoral Knowledge Network. "Voter Registration." Accessed January 19, 2018. <http://aceproject.org/ace-en/topics/vr/onePage>.
- Alvarez, R. Michael, and Thad E. Hall. *Resolving Voter Registration Problems: Making Registration Easier, Less Costly and More Accurate*. Pasadena, CA and Cambridge, MA: Caltech/MIT Voting Technology Project, 2009. https://dspace.mit.edu/bitstream/handle/1721.1/96618/wp_87.pdf;sequence=1.
- Ansolabehere, Stephen, and Eitan Hersh. "Voter Registration: The Process and Quality of Lists." In *The Measure of American Elections*, edited by Barry C. Burden and Charles Stewart III, 61–90. New York: Cambridge University Press, 2014.
- Associated Press-NORC Center for Public Affairs Research. "The Frustrated Public: Views of the 2016 Campaign, the Parties, and the Electoral Process." 2016. <http://www.apnorc.org/projects/Pages/HTML%20Reports/the-frustrated-public-americans-views-of-the-election-issue-brief.aspx>.
- . *Views on the American Election Process and Perceptions of Voter Fraud*. Chicago: University of Chicago, 2016. http://www.apnorc.org/PDFs/Fraud/Elections%20and%20Fraud%20Topline_FINAL.pdf.
- Atkeson, Lonna Rae. "Election Data Transparency." In *The Measure of American Elections*, edited by Barry C. Burden and Charles Stewart III, 271–298. New York: Cambridge University Press, 2014.
- Barry, Frank, and Michael Newman. "Could Fingerprinting Finish the Debate Over Voter ID Laws?" *Government Technology*, January 30, 2015. <http://www.govtech.com/opinion/Could-Fingerprinting-Finish-the-Debate-Over-Voter-ID-Laws.html>.
- Bergin, Richard. "Biometrics." Lecture, NPS Center for Homeland Defense and Security, Monterey, CA, July 1, 2006.
- Brace, Kimball. "The Election Process: From a Data Prospective." Presentation, Election Data Services, Inc., 2017. <https://www.electiondataservices.com/wp-content/uploads/2017/09/BracePresentation2PenseCommAmended.pdf>.
- Brandon, Michael, and Jon Cohen. "Poll: Concerns about Voter Fraud Spur Broad Support for Voter ID Laws." *The Washington Post*, August 11, 2012. https://www.washingtonpost.com/politics/poll-concerns-about-voter-fraud-spur-broad-support-for-voter-id-laws/2012/08/11/40db3aba-e2fb-11e1-ae7f-d2a13e249eb2_story.html?utm_term=.af5e68a58a2f.

- Brennan Center for Justice. *Investigator's Guide to "Voter Fraud"*. New York: Brennan Center for Justice, 2006. <https://www.brennancenter.org/sites/default/files/analysis/Investigator%27s%20Guide%20to%20Voter%20Fraud.pdf>.
- Brown, June Gibbs. *Birth Certificate Fraud*. Washington, DC: Department of Health and Human Services, Office of the Inspector General, 2000. <https://oig.hhs.gov/oei/reports/oei-07-99-00570.pdf>.
- Bump, Philip. "Here's How Rare In-Person Voter Fraud Is." *Washington Post*, August 3, 2016. https://www.washingtonpost.com/news/the-fix/wp/2016/08/03/heres-how-rare-in-person-voter-fraud-is/?utm_term=.2918a8a6dbc4.
- Bureau of Justice Assistance. *Plea Bargaining Research Summary*. Washington, DC: Department of Justice, 2011. <https://www.bja.gov/Publications/PleaBargainingResearchSummary.pdf>.
- CALTECH/MIT. *The Voting Technology Project: Looking Back, Looking Ahead*. Pasadena, CA and Cambridge, MA: The Caltech/MIT Voting Technology Project, 2016. <http://www.vote.caltech.edu/reports/8>.
- Catalist. "Catalist Data." Accessed December 3, 2017. <https://www.catalist.us/data/>.
- Centers for Disease Control and Prevention, National Center for Health Statistics. "Where to Write for Vital Records." Last updated September 19, 2017. <https://www.cdc.gov/nchs/w2w/index.htm>.
- Chapin, Doug. "Charles Stewart on "Mobility and Registration"." November 9, 2017, Election Academy. <http://editions.lib.umn.edu/electionacademy/2017/11/09/charles-stewart-on-mobility-and-voter-registration/>.
- Colorado Secretary of State. *Election Law, Colorado's Revised Statutes, Title 1*. Denver: State of Colorado, 2017. <https://www.sos.state.co.us/pubs/elections/LawsRules/files/Title1.pdf>.
- Comey, James B. *Statement of James B. Comey, Director Federal Bureau of Investigation, before the Committee on the Judiciary United States House of Representatives for a Hearing concerning Oversight of the Federal Bureau of Investigation, September 28, 2016*. Washington, DC: Committee on the Judiciary, 2016. <https://judiciary.house.gov/wp-content/uploads/2016/09/Director-Comey-Statement.pdf>.
- Commission on Federal Election Reform. *Building Confidence in U.S. Elections*. Washington, DC: Center for Democracy and Election Administration, American University, 2005. https://web.archive.org/web/20070609115256/http://www.american.edu/ia/cfer/report/full_report.pdf.

Counter, Peter B. “Biometrics Now Mandatory for Voting in the Philippines.” Find Biometrics, June 2, 2014. <http://findbiometrics.com/biometrics-now-mandatory-for-voting-in-the-philippines>.

Dahl, Robert. *How Democratic Is the American Constitution?* New Haven: Yale University Press, 2003.

de Vogue, Ariane, and Dan Berman. “Supreme Court Won’t Reinstate North Carolina Voter ID Law.” CNN, August 31, 2016. <https://www.cnn.com/2016/08/31/politics/supreme-court-north-carolina-voter-id/index.html>.

DeLaney, Andrew N. “Appearance Matters: Why the State Has an Interest in Preventing the Appearance of Voting Fraud.” *New York University Law Review* 83, no. 3 (June 2008): 1–32.

Department of Homeland Security. “Office of Biometric Identity Management Identification Services.” Accessed March 1, 2017. <https://www.dhs.gov/obim-biometric-identification-services>.

———. “REAL ID.” Accessed October 19, 2017. <https://www.dhs.gov/real-id>.

———. *Real ID Act, Title II*. Washington, DC: Department of Homeland Security, 2005. <https://www.dhs.gov/xlibrary/assets/real-id-act-text.pdf>.

———. “REAL ID Frequently Asked Questions by the Public.” Accessed October 19, 2017. <https://www.dhs.gov/real-id-public-faqs>.

———. “Roundtable 5: The SAVE Program: Verification, Immigrants, and Public Benefits.” August 24, 2015. <https://www.dhs.gov/save-program-verification-immigrants-and-public-benefits>.

———. “Statement by Secretary Jeh Johnson on the Designation of Election Infrastructure as a Critical Infrastructure Subsector.” January 6, 2017. <https://www.dhs.gov/news/2017/01/06/statement-secretary-johnson-designation-election-infrastructure-critical>.

Department of Justice. “Preliminary Findings of Joint Task Force Investigating Possible Election Fraud.” May 10, 2005. <http://p2004.org/states/wifraud051005.html>.

———. “Principles of Federal Prosecution: Grounds for Commencing or Declining Prosecution: 9-27.220.” Updated February 2018. <https://www.justice.gov/usam/usam-9-27000-principles-federal-prosecution>.

———. Bureau of Justice Statistics. “Federal Criminal Case Processing Statistics.” Accessed December 18, 2017. <https://www.bjs.gov/fjsrc/>.

- Diamond, Larry. "Facing up to Democratic Recession." *Journal of Democracy* 26, no. 3 (January 2015): 141–155. https://www.journalofdemocracy.org/sites/default/files/Diamond-26-1_0.pdf.
- Donovan, Todd, and Shaun Bowler. "Strict Voter ID Laws Make Republican Voters More Confident about Elections." *USAPP American Politics and Policy* (blog), February 17, 2016. <http://blogs.lse.ac.uk/usappblog/2016/02/17/strict-voter-id-laws-make-republican-voters-more-confident-about-elections/>.
- Donsanto, Craig, and Nancy L. Simmons. *Federal Prosecutions of Election Offenses: Seventh Edition*. Washington, DC: Department of Justice, Public Integrity Section, 2007.
- Economist Intelligence Unit. *Democracy Index 2016: Revenge of the "Deplorable"*. London, UK: The Economist Group, 2017. <http://www.eiu.com/Handlers/WhitepaperHandler.ashx?fi=Democracy-Index-2016.pdf&mode=wp&campaignid=DemocracyIndex2016>.
- Election Assistance Commission. *14 Facts*. Silver Spring, MD: Election Assistance Commission, 2014. https://www.eac.gov/assets/1/6/VotersGuide_508.pdf.
- . "Committee Approves Next Generation of Voting Systems Guidelines." September 12, 2017. <https://www.eac.gov/news/2017/09/12/committee-approves-next-generation-of-voting-system-guidelines/>.
- . *EAVS Deep Dive: Poll Workers and Polling Places White Paper*. Washington, DC: Government Printing Office, 2017. <https://www.eac.gov/documents/2017/11/15/eavs-deep-dive-poll-workers-and-polling-places>.
- . *Election Crimes: An Initial Review and Recommendations for Future Study*. Washington, DC: Election Assistance Commission, 2006. <https://www.eac.gov/assets/1/1/2006%20Election%20Crimes%20Report.pdf>.
- . *Election Crimes Report*. Washington, DC: Government Printing Office, 2006. <https://www.eac.gov/assets/1/1/2006%20Election%20Crimes%20Report.pdf>.
- . "Elections—Critical Infrastructure." Accessed November 11, 2017. <https://www.eac.gov/election-officials/elections-critical-infrastructure/>.
- . *Fiscal Year 2018, Congressional Budget Justification*. Silver Spring, MD: 2017. https://www.eac.gov/assets/1/6/FY_2018_CBJ_May_23_2017_with_Attachment_A_FINAL.pdf.
- . "Help America Vote Act." Accessed January 19, 2018. <https://www.eac.gov/about/help-america-vote-act/>.

- . *Register to Vote in Your State by Using This Postcard Form and Guide Voter Registration Card*. Silver Spring, MD: Election Assistance Commission, 2006. https://www.eac.gov/assets/1/Documents/Federal%20Voter%20Registration_1209_en9242012.pdf.
- . *The 2012 Election Administration and Voting Survey*. Washington, DC: Government Printing Office, 2013. <https://www.eac.gov/research-and-data/2012-election-administration-voting-survey/>.
- . *The American Voting Experience: Report and Recommendations of the Presidential Commission on Election Administration*. Washington DC: Government Printing Office, 2014. <https://www.eac.gov/assets/1/6/Amer-Voting-Exper-final-draft-01-09-14-508.pdf>.
- . *The Election Administration and Voting Survey: 2016 Comprehensive Report*. Washington, DC: Government Printing Office, 2017. https://www.eac.gov/assets/1/6/2016_EAVS_Comprehensive_Report.pdf.
- Elections Canada. “Description of the National Register of Electors.” Modified April 25, 2017. <http://www.elections.ca/content.aspx?section=vot&dir=reg/des&document=index&lang=e>.
- . “ID to Vote.” Modified April 25, 2017. <http://www.elections.ca/content.aspx?section=vot&dir=ids&document=index&lang=e>.
- Epps, Garrett. “Voting: Right or Privilege?” *Atlantic*, September 18, 2012. <https://www.theatlantic.com/national/archive/2012/09/voting-right-or-privilege/262511/>.
- ERIC. “Electronic Registration Information Center: Who We Are.” Accessed January 15, 2018. <http://www.ericstates.org/whoweare>.
- . “Ensuring the Efficiency and Integrity of America’s Voter Rolls.” Accessed November 3, 2017. <http://www.ericstates.org/>.
- Esau, Keith. *Kansas, Interstate Voter Registration Crosscheck Program: National Conference of State Legislators*. Olathe, KS: Keith Esau, 2017. http://www.ncsl.org/Portals/1/Documents/Elections/Kansas_VR_Crosscheck_Program.pdf.
- Federal Voting Assistance Program. *2016 Post-Election Report to Congress*. Alexandria, VA: Federal Voting Assistance Program, 2017. https://www.fvap.gov/uploads/FVAP/Reports/FVAP2016Report_20170731_final.pdf.
- Fischer, Eric A., R. Sam Garrett, and L. Paige Whitaker. *State Voter Identification Requirements: Analysis, Legal Issues, and Policy Considerations*. CRS Report No. R42806. Washington, DC: Congressional Research Service, 2016. <https://fas.org/sgp/crs/misc/R42806.pdf>.

- Fisher, Jeff. *Electoral Conflict and Violence: A Strategy for Study and Prevention*. Arlington, VA: International Foundation for Electoral Systems, 2002. <http://www.ifes.org/sites/default/files/econflictpaper.pdf>.
- Fontana, John. "DMV Driving Virginia's Next-Gen Identity System." *ZDNet*, March 21, 2013. <http://www.zdnet.com/article/dmv-driving-virginias-next-gen-identity-system/>.
- Gambler, Rebecca. *Elections: Issues Related to Registering Voters and Administering Elections*. GAO-16-630. Washington, DC: Government Accountability Office, 2016. <http://www.gao.gov/assets/680/678131.pdf>.
- Gamboa, Anthony H. *Elections: The Scope of Congressional Authority in Election Administration*. GAO-01-470. Washington, DC: Government Accountability Office, 2001. <https://www.gao.gov/new.items/d01470.pdf>.
- Gardener, Aaron. "Colorado Counties Have More Voters than People." Media Trackers, September 4, 2012. <http://mediatrackers.org/2012/09/04/colorado-counties-have-more-voters-than-people/>.
- Goldstein, Amy. "Democrats Predict Voter ID Problems: Laws May Create Election Day Turmoil." *Washington Post*, November 3, 2006. <http://www.washingtonpost.com/wp-dyn/content/article/2006/11/02/AR2006110201897.html>.
- Graham, David A. "What Mueller's Indictment Reveals." *Atlantic*, February 16, 2018. <https://www.theatlantic.com/politics/archive/2018/02/mueller-roadmap/553604/>.
- Gronke, Paul. "Voter Confidence as a Metric of Election Performance." In *The Measure of American Elections*, edited by Barry C. Burden and Charles Stewart III, 248–270. New York: Cambridge University Press, 2014.
- Hajnal, Zoltan, Nazita Lajevardi, and Lindsay Nielson. *Voter Identification Laws and the Suppression of Minority Votes*. San Diego: UC San Diego, 2017. <http://pages.ucsd.edu/~zhajnal/page5/documents/voterIDhajnaletal.pdf>.
- Harris, Tom. "How Fingerprint Scanners Work." HowStuffWorks, September 24, 2002. <http://computer.howstuffworks.com/fingerprint-scanner.htm>.
- Henderson, Ana. "Web Special: Citizenship Verification, Obstacle to Voter Registration and Participation." *New Political Spaces* 19, no. 1 (2012). <http://www.reimagine-rpe.org/book/export/html/6967>.
- Holtved, Ole. *Biometrics in Elections, Georgia: De-Duplication or Voter Register and Verification of Voter Identity Using Biometrics*. Washington, DC: U.S. Agency International Development, 2011. http://www.ifes.org/sites/default/files/biometrics_in_elections_2011_0.pdf.

- International Foundation for Electoral Systems. "Voter Registration." Accessed July 25, 2017. <http://iffes.org/issues/oter-registration>.
- International Institute for Vital Registration and Statistics. *The Organization of the Civil Registration System of the United States*. Number 8. Bethesda, MD: International Institute for Vital Registration and Statistics, 1980.
- Issifu, Abdul Karim. "Peaceful Elections in the December 2016 Polls: Role of the Ghanaian Youth." *Modern Ghana*, January 13, 2017. <https://www.modernghana.com/news/749044/peaceful-elections-in-the-december-2016-polls-role-of-the-g.html>.
- Jefferson, Karrie Anne. "What's in a Name: A Comparative Analysis of the United States' REAL ID Act and the United Kingdom's National Identity Scheme." Master's thesis, Naval Postgraduate School, 2015. <https://www.hsdl.org/?view&did=790327>.
- Kimball, David C., Chris T. Owens, and Katherine McAndrew Keeney. "Unrecorded Votes and Political Representation." In *Counting the Votes: Lessons from the 2000 Presidential Election in Florida*, edited by Robert P. Watson, 1–29. Gainesville, FL: University Press of Florida, 2004.
- King, Rawlson O'Neil. "Law Enforcement and Biometrics." *Biometric Update*, January 2016. <http://www.biometricupdate.com/201601/special-report-law-enforcement-and-biometrics>.
- Lee, Justin. "Biometrics Changing the Way Governments Address Data Security, Privacy." *Biometric Update*, August 9, 2017. <http://www.biometricupdate.com/201708/biometrics-changing-the-way-governments-address-data-security-privacy>.
- . "Introducing Biometrics in the U.S. Voting Process: Q&A with Dave Gerulski." *Biometric Update*, October 16, 2016. <http://www.biometricupdate.com/201610/introducing-biometrics-in-the-u-s-voting-process-qa-with-dave-gerulski>.
- Levitsky, Steve, and Daniel Ziblatt. *How Democracies Die*. New York: Crown Publishing Group, 2018.
- Linder, Doug. "Exploring Constitutional Conflicts: Equal Protection and the Right to Vote." 2016. <http://law2.umkc.edu/faculty/projects/ftrials/conlaw/rightovote.html>.
- Liu, Simon, and Mark Silverman. "A Practical Guide to biometric Security Technology." *IT Professional* 3, no. 1 (January/February 2001): 27–32. <https://dl.acm.org/citation.cfm?id=613088>.

- Madanapalle, Aditya. "How Aadhaar Compares to Other Biometric National Identification Systems around the World." First Post, April 5, 2017. <http://www.firstpost.com/tech/news-analysis/how-aadhaar-compares-to-other-biometric-national-identification-systems-around-the-world-3700543.html>.
- Mann, Christopher B. "Mail Ballots in the United States: Policy Choice and Administrative Challenges." In *The Measure of American Elections*, edited by Barry C. Burden and Charles Stewart III, 113–140. New York: Cambridge University Press, 2014.
- Massachusetts Institute of Technology, School of Humanities, Arts, and Social Sciences. "SHASS: News—2016." *Election Insights 2016* (blog). Accessed February 3, 2018. <https://shass.mit.edu/news/news-2016-election-insights-charles-stewart-iii-election-integrity>.
- McCarthy, Justin. "Gallup Polls: About Six in 10 Confident in Accuracy of U.S. Vote Count." Gallup News, September 9, 2016. http://www.gallup.com/poll/195371/six-confident-accuracy-vote-count.aspx?g_source=Politics&g_medium=newsfeed&g_campaign=tiles.
- McCormack, Conny B. *Democracy Rebooted: The Future of Technology in Elections*. Washington, DC: Atlantic Council, 2016. <http://publications.atlanticcouncil.org/election-tech/index.php>.
- McDonald, Michael. "America Goes to the Polls: A Report on Voter Turnout in the 2016 Election." Non-Profit Vote, March 24, 2017. <http://www.nonprofitvote.org/america-goes-to-the-polls-2016/>.
- Melillo, Lena. "Voter Fraud Remains a Concern." University Wire, October 19, 2016. <http://dailytrojan.com/2016/10/19/voter-fraud-remains-concern/>.
- Michigan State University, Department of Computer Science and Engineering. "What is Biometrics." Accessed February 18, 2018. <http://biometrics.cse.msu.edu/info/index.html>.
- Miller, Alice P. "Memorandum of Decision Concerning State Requests to Include Additional Proof-of-Citizenship Instructions on the National Mail Voter Registration Form." Washington, DC: U.S. Election Assistance Commission, 2014. <https://www.eac.gov/assets/1/28/20140117%20EAC%20Final%20Decision%20on%20Proof%20of%20Citizenship%20Requests%20-%20FINAL.pdf>.
- Minnite, Lorraine C. *The Politics of Voter Fraud*. Washington, DC: Project Vote, 2007. <http://www.nonprofitvote.org/documents/2011/03/project-vote-politics-of-voter-fraud.pdf>.

- Morley, Michael T. "Dismantling the Unitary Electoral System?: Uncooperative Federalism in State and Local Elections." *Northwestern University Law Review Online* 111, no. 103 (February 2017): 103–124. https://scholarlycommons.law.northwestern.edu/nulr_online/243.
- National Association for Public Health Statistics and Information Systems. "Information Systems for Vital Records Stewardship." Accessed February 13, 2018. <https://www.naphsis.org/systems>.
- National Association of State Election Directors. "National Association of State Election Directors Roster." October 4, 2017. <http://www.nased.org/>.
- National Conference of State Legislatures. "All-Mail Elections (aka Vote-By-Mail)." Last updated January 12, 2017. <http://www.ncsl.org/research/elections-and-campaigns/all-mail-elections.aspx>.
- . "The Canvass: Measuring Elections: Data, Not Anecdotes." March 2013. <http://www.ncsl.org/research/elections-and-campaigns/the-canvass-march-2013.aspx>.
- . "The Canvass: States and Election Policy." September 2017. <http://www.ncsl.org/research/elections-and-campaigns/voter-registration.aspx>.
- . "The Canvass: States and Election Reform." May 2016. <http://www.ncsl.org/research/elections-and-campaigns/voter-registration.aspx>.
- . "The Canvass: The Cost of Inaccuracy: Voter Registration Examined." March 2012. <http://www.ncsl.org/research/elections-and-campaigns/the-canvass-march-2012.aspx>.
- . "The Future of Elections." Accessed September 3, 2017. <http://www.ncsl.org/research/elections-and-campaigns.aspx>.
- . "Voter Identification Requirements|Voter ID Laws." Accessed January 5, 2018. <http://www.ncsl.org/research/elections-and-campaigns/voter-id.aspx>.
- . "Voter List Accuracy." Accessed July 31, 2017. <http://www.ncsl.org/research/elections-and-campaigns/voter-list-accuracy.aspx>.
- . "Voter Registration." Accessed July 31, 2017. <http://www.ncsl.org/research/elections-and-campaigns/voter-registration.aspx>.
- National Institute of Standards and Technology. "Biometrics." Updated July 13, 2017. <https://www.nist.gov/programs-projects/biometrics>.
- Newkirk, Vann R. "How Voter ID Laws Discriminate." *The Atlantic*, February 18, 2017. <https://www.theatlantic.com/politics/archive/2017/02/how-voter-id-laws-discriminate-study/517218/>.

- Norris, Pippa. “Could Massive Voter Fraud Have Occurred in the 2016 U.S. Presidential Election? The Mysterious Case of the Dog Which Did Not Bark.” *Electoral Integrity Project* (blog), February 2, 2017. <https://www.electoralintegrityproject.com/eip-blogs/2017/2/2/could-massive-voter-fraud-have-taken-place-in-the-2016-us-presidential-election>.
- . *Why American Elections are Flawed (And How to Fix Them)*. Faculty Research Working Paper Series, RWP 16-038 2016. Cambridge, MA: Harvard University, Harvard Kennedy School (HKS), 2016.
- Norris, Pippa, and Max Grömping. *Populist Threats to Electoral Integrity: The Year in Elections, 2016–2017*. Sydney, Australia: The Electoral Integrity Project: University of Sydney, 2007.
- Norris, Pippa, Ferran Martínez i Coma, Alessandro Nai, and Max Grömping. *The Year in Elections, Mid-2016 Update*. Sydney, Australia, University of Sydney: The Electoral Integrity Project, 2016. <https://static1.squarespace.com/static/58533f31bebafe99c85dc9b/t/590ed0b7440243109d1f2b01/1494143171236/THE+YEAR+IN+ELECTIONS+UPDATE+2016+15+Sept+2016.pdf>.
- Norris, Pippa, Thomas Wynter, Max Grömping, and Sarah M. Cameron. *The Year in Elections, 2017 Mid-Year Update*. Sydney, Australia: University of Sydney, The Electoral Integrity Project, 2016.
- North Dakota Legislative Branch, North Dakota Century Code. “Title 39 Motor Vehicles, Sections 39-06.” August 18, 2017, <http://www.legis.nd.gov/cencode/t39.html>.
- North Dakota Secretary of State. *North Dakota....The Only State without Voter Registration*. Bismarck ND: North Dakota Secretary of State, 2004. <http://www.library.nd.gov/statedocs/SecretaryState/votereg-2.pdf>.
- Obama, Barack. Executive Order 13639. “Establishment of the Presidential Commission on Election Administration.” Code of Federal Regulations, title 3 (2013). <https://www.gpo.gov/fdsys/pkg/CFR-2014-title3-vol1/pdf/CFR-2014-title3-vol1-eo13639.pdf>.
- Office of Personnel Management. *Notice No. 07-02: Verification of Immigration/Citizenship Status*. Washington, DC: Office of Personnel Management, 2007. <https://nbib.opm.gov/hr-security-personnel/federal-investigations-notices/2007/fin-07-02.pdf>.
- Office of the Federal Register, National Archives and Records Administration. “Federal Elections: Effect on State Law.” Code of Federal Regulations, title 11 (2002): 142. <https://www.gpo.gov/fdsys/pkg/CFR-2016-title11-vol1/pdf/CFR-2016-title11-vol1.pdf>.

- Ortman, Jennifer M., and Christine E. Guarneri. *United States Population Projections: 2000 to 2050*. Washington, DC: U.S. Census Bureau, Government Printing Office, 2009. <http://www.census.gov/population/projections/files/analytical-document09.pdf>.
- Otto, Joe. "Data Proves that Voter Fraud is Rampant." *Conservative Daily*, April 4, 2014. <https://conservative-daily.com/2014/04/04/data-proves-that-voter-fraud-is-rampant/>.
- Pew Center on the States. *Inaccurate, Costly, and Inefficient: Evidence That America's Voter Registration System Needs an Upgrade*. Washington, DC: Pew Center on the States, 2012. http://www.pewtrusts.org/~media/legacy/uploadedfiles/pcs_assets/2012/pewupgradingvoterregistrationpdf.pdf.
- PEW Charitable Trusts. "Election Initiatives: Electronic Registration Information Center." Accessed December 3, 2017. <http://www.pewtrusts.org/en/projects/election-initiatives/about/upgrading-voter-registration/eric>.
- Phillips, Ariella. "Head of Trump's Voter Fraud Panel Sought More Flexibility for States to Impose Voter ID Laws." *Washington Examiner*, October 6, 2017. <http://www.washingtonexaminer.com/head-of-trumps-voter-fraud-panel-sought-more-flexibility-for-states-to-impose-voter-id-laws/article/2636796>.
- Pistole, John S. "Testimony: Fraudulent Identification Documents and the Implications for Homeland Security, Department of Justice." October 1, 2003. <https://archives.es.fbi.gov/archives/news/testimony/fraudulent-identification-documents-and-the-implications-for-homeland-security>.
- Richman, Jess T., Gulshan A. Chattha, and David C. Earnest. "Do Non-Citizens Vote in U.S. Elections." *Electoral Studies* 36 (September 2014): 149–150. <https://www.journals.elsevier.com/electoral-studies/news/electoral-studies-and-the-2016-us-election>.
- Rosenberg, Jennifer S. with Margaret Chen. *Expanding Democracy: Voter Registration around the World*. New York: Brennan Center for Justice, 2009. <http://www.brennancenter.org/sites/default/files/legacy/publications/Expanding.Democracy.pdf>.
- Rosenberg, Simon. "Keep the Faith: Three Steps to Modernize and Reform American Elections Would Help Rebuild Faith in Our Democracy." *U.S. News & World Report*, April 25, 2016. <https://www.usnews.com/news/articles/2016-04-25/voting-reform-is-one-of-americas-biggest-challenges>.
- Schedler, Andreas. "What is Democratic Consolidation?" *Journal of Democracy* 9, no. 2 (April 1998): 97, Project Muse.
- Schmitter, Philippe C., and Terry Lynn Karl. "What Democracy is...and is Not." *Journal of Democracy* 2, no. 3 (Summer 1991): 75–97.

- Shott, John. "NCSL's the Canvass: May 2016." National Conference of State Legislatures. Accessed November 24, 2017. <https://www.ncsl.org/research/elections-and-campaigns/the-canvass-may-2016.aspx>.
- Social Security Administration. *Social Security Cards for Non-Citizens*. Washington, DC: Government Printing Office, 2016. <https://www.ssa.gov/pubs/EN-05-10096.pdf>.
- State of Colorado, Department of State. *Comparison of Colorado's Voter Rolls with Department of Revenue Non-Citizen Records*. Denver: State of Colorado, Department of State, 2011. http://cha.house.gov/sites/republicans.cha.house.gov/files/documents/hearing_docs/co_non_citizen_report.pdf.
- Stewart, Charles III. *2012 Survey of the Performance of American Elections*. Cambridge, MA: The Massachusetts Institute of Technology, 2013. https://elections.delaware.gov/pdfs/SPAE_2012.pdf.
- . *2014 Survey of the Performance of American Elections*. Cambridge, MA: The Massachusetts Institute of Technology, 2015. https://elections.delaware.gov/pdfs/SPAE_2014.pdf,
- . "Thoughts on Voter Confidence and Election Reform." *Election Updates* (blog). September 12, 2017. <https://electionupdates.caltech.edu/2017/09/12/thoughts-on-voter-confidence-and-election-reform/>.
- Strickland, Johnathan. "How Will Biometrics Affect Our Privacy?" HowStuffWorks, April 28, 2010. <http://computer.howstuffworks.com/biometrics-privacy.htm>.
- Sutter, Daniel. "Detecting and Correcting Election Fraud." *Eastern Economic Journal*, 29, no. 3 (Summer 2003): 433.
- Todd, Chuck, Mark Murray, and Carrie Dann. "The FBI, the 2016 Election and the Confidence Deficit." NBC News, November 1, 2016. <http://www.nbcnews.com/politics/first-read/fbi-2016-election-confidence-deficit-n676171>.
- Tonkaji, Daniel. *Tonkaji's Election Law in a Nutshell*. St. Paul, MN: West Academic Publishing, 2013. Kindle.
- Trump, Donald J. Executive Order 13799. "Establishment of Presidential Advisory Commission on Election Integrity." Code of Federal Regulations, title 3 (2017). <https://www.gpo.gov/fdsys/pkg/DCPD-201700326/pdf/DCPD-201700326.pdf>.
- U.S. Agency International Development. *Civil and Voter Registries: Lessons Learned from Global Experiences*, edited by Michael Yard. Washington, DC: International Foundations for Electoral Systems, 2011. http://pdf.usaid.gov/pdf_docs/pnaea087.pdf.

- U.S. Census Bureau. “American Community Survey Information Guide.” Accessed November 3, 2017. <https://www.census.gov/programs-surveys/acs/about/information-guide.html>.
- . “American FactFinder.” Accessed November 18, 2017. https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_1YR_S0101&prodType=table.
- . *Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2012*. NST-EST2012-01. Washington, DC: U.S. Census Bureau, 2012. <https://www.census.gov/popest/data/state/totals/2012/>.
- . “Electorate Profiles: Selected Characteristics of the Citizen, Voting-Age Population.” Accessed December 2, 2017. <https://www.census.gov/data/tables/time-series/demo/voting-and-registration/electorate-profiles-2016.html>.
- . “Monthly Population Estimates.” Accessed December 2, 2017. <https://www.census.gov/data/tables/2016/demo/popest/nation-total.html>.
- . “Redistricting Data: Voting Age Population by Citizenship and Race (CVAP).” Accessed December 2, 2017. https://www.census.gov/rdo/data/voting_age_population_by_citizenship_and_race_cvap.html.
- . “Reported Voting and Registration of the Citizen Voting-Age Population: November 2016.” Accessed December 2, 2017. <https://www.census.gov/data/tables/time-series/demo/voting-and-registration/p20-580.html>.
- . “U.S. and World Population Clock.” Accessed December 2, 2017. <https://www.census.gov/popclock/>.
- U.S. Citizenship and Immigration Services. “Citizenship Rights and Responsibilities.” Accessed February 19, 2018. <https://www.uscis.gov/citizenship/learners/citizenship-rights-and-responsibilities>.
- . *Privacy Impact Assessment for the Systematic Alien Verification for Entitlements (SAVE) Program*. Washington, DC: U.S. Citizenship and Immigration Services, 2011. https://www.dhs.gov/xlibrary/assets/privacy/privacy_pia_uscis_save.pdf.
- . “Proof of U.S. Citizenship and Identification When Applying for a Job.” Accessed November 1, 2017. <https://www.uscis.gov/us-citizenship/proof-us-citizenship-and-identification-when-applying-job>.
- . *SAVE Agency Search Tool Quick Reference Guide*. Washington, DC: U.S. Citizenship and Immigration Services, 2015. <https://www.uscis.gov/sites/default/files/USCIS/Verification/SAVE/About%20the%20SAVE%20Program/SAVE%20Search%20Tools/SAVE-Agency-Search-Tool-Quick-Reference-Guide.pdf>.

- . “SAVE History and Milestones.” Last updated September 9, 2017. <https://www.uscis.gov/save/history-milestones#y2018>.
- . “SAVE Overview Video.” Video, 2:50. Last updated September 8, 2016. <https://www.uscis.gov/save/about-save>.
- . “SAVE: Understanding the Systematic Alien Verification for Entitlements (SAVE) Program.” November 2011. www.uscis.gov/SAVE.
- . “Welcome to the Systematic Alien Verification for Entitlements Program (SAVE).” Accessed February 14, 2018. <https://www.uscis.gov/save>.
- U.S. Department of Justice. “National Voter Registration Act.” Accessed January 18, 2018. <https://www.justice.gov/crt/about-national-voter-registration-act>.
- U.S. Department of State. “Frequently Asked Questions.” Accessed November 1, 2017. <https://travel.state.gov/content/passports/en/passports/FAQs.html>.
- University of California—Santa Barbara. “UCSB ScienceLine.” October 10, 2011. <http://scienceline.ucsb.edu/getkey.php?key=2650>.
- US Legal. “Violations of Election Laws.” Accessed February 2, 2018. <http://elections.uslegal.com/violations-of-election-laws/>.
- USA.gov. “Register to Vote.” Accessed November 19, 2017. <https://www.usa.gov/register-to-vote>.
- . “Voter ID Requirements.” Accessed January 3, 2018. www.usa.gov/voter-id.
- . “Voting and Election Laws.” Accessed October 10, 2016. <https://www.usa.gov/voting-laws>.
- USHistory.org. “The Founders and Federalism.” Accessed October 17, 2016. <http://www.ushistory.org/gov/3a.asp>.
- Vibeghana. “Biometric ‘Wahala’ in Nigeria Election—Any Lesson for Ghana 2016?” March 30, 2015. <http://vibeghana.com/2015/03/30/biometric-wahala-in-nigeria-election-any-lesson-for-ghana-2016>.
- Virginia Department of Elections. *Annual List Maintenance Report, July 1, 2016–June 30, 2017*. Richmond, VA: Virginia Department of Elections, 2017. <https://www.elections.virginia.gov/Files/maintenance-reports/2017SBEListMaintenanceReport.pdf>.
- Vote.org. “Voter ID Laws.” Accessed October 20, 2016. <https://www.vote.org/voter-id-laws/>.

- Washington State Secretary of State. "Washington State Voter Registration Database." Accessed November 12, 2017. <https://www.sos.wa.gov/elections/vrdb/>.
- Williams, Katie Bo. "DHS Designates Election Systems as 'Critical Infrastructure'." The Hill, January 6, 2017. <http://thehill.com/policy/national-security/313132-dhs-designates-election-systems-as-critical-infrastructure>.
- Wilson, Tracy V. "How Biometrics Works." HowStuffWorks, November 11, 2005. <http://science.howstuffworks.com/biometrics.htm>.
- Wolf, Peter, Abdul Alim, Brown Kasaro, Pontius Namugera, Mohammed Saneem, and Tamir Zorigt. *Introducing Biometric Technology in Elections*. Stockholm: International Institute for Democracy for Electoral Assistance, 2017. <https://www.idea.int/sites/default/files/publications/introducing-biometric-technology-in-elections.pdf>.
- Wolf, Richard. "Supreme Court Won't Rescue Voter ID Law." USA Today, January 23, 2017. <https://www.usatoday.com/story/news/politics/2017/01/23/supreme-court-texas-voter-id-law/96942738/>.
- World Bank. "Population, Total." Accessed January 13, 2018. <https://data.worldbank.org/indicator/SP.POP.TOTL>.
- Zeldon, Charles L. *Bush v. Gore: Exposing the Hidden Crisis in American Democracy*. Lawrence, KS: University Press of Kansas, 2010.

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