HANDOUTS

3:45 – 4:45 p.m. Breakout Session 1: Election Security & Integrity

Speakers: Walt Latham & Joan Porte

1. Election Security (PowerPoint) – Walt Latham
2. Election Issues – Joan Porte
3. Voter Registration and Election Security, LWV of the Fairfax Area Study
4. National Popular Vote, Explained
Early Voting:

According to the Early Voting Information Center, early voting got its start in the Civil War and the competition between President Lincoln and General George McLellan. Lincoln wanted the votes of the soldiers. Most states adopted a proxy system. Note: When I say most states, I mean states with Republican Governors and legislators. Lincoln was a Republican and the thought was that soldiers had an affinity for their Commander in Chief. Therefore, Republicans were eager to try this system!

They had two systems – one in which the soldier was given a ballot from his state similar to paper ballot today and then “mailed it back” – usually through supply lines – quartermaster. Some sent people into the camps to “collect the vote” like a survey. There is some evidence that the Maryland soldier vote was very helpful to Lincoln.

The end of the War saw the end of this system and until WW 2, getting troops opportunities to vote was not a priority. Ironically, in WW2 the Democrats were pushing for soldiers voting because FDR was a Democrat with good affinity with the soldiers! Most states changed their laws to allow mailed ballots from soldiers from all over the world – most did except those in the South who claimed States rights. Still 2.6 million soldiers voted in 1944.

Pressure continued to allow ex-pats to vote overseas but there was no legislation until 1986. Finally Congress acted, passing the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA) of 1986 to clarify guidance. Later, Congress passed the Military and Overseas Voting Empowerment (MOVE) Act of 2009. States were required to change their election laws to ensure that overseas military personnel could register to vote and request ballots electronically. Additionally, states were required to have ballots ready to mail at least 45 days before an election to ensure enough time for ballot return and counting.

For non-military people there is evidence of early voting in some rural areas of Louisiana as early as 1921.
Several states had early excuse-based absentee voting in the 1970’s. California started no excuse paper early voting – because people were lying so much about why they had to vote early. Texas followed and Texas became the first state to offer early in person voting. In 1995, Oregon became the first state to do a federal primary totally by mail. Of course, now Oregon is all mail voting.

After the debacle of the 2000 election, many states began allowing early voting to relieve pressure on registrars on Election Day.

In 37 states (including three that mail ballots to all voters Oregon, Washington and Colorado) and the District of Columbia, any qualified voter may cast a no excuse early ballot in person during a designated period prior to Election Day. Some states like Pennsylvania have no early voting. Then there are hybrids like Virginia. Some states like Fla and N Carolina have restricted voting recently.

Currently in VA:

In 2020, registered voters will be able to cast an absentee ballot without providing a reason starting about a week before Election Day.

The value of no excuse early voting:

Early voting eases congestion on Election Day, leading to shorter lines, improved poll worker performance, and improved voter satisfaction. It also allows for earlier correction of registration errors and voting system glitches. (Brennan Center).

In addition, the voter’s application is a record available to inspection by the public under the state’s open records law. There is a security issue as well. What if a data breach releases information on a health issue or jail time, etc? Excuse-based voting creates “privileged class” of people who have the luxury.

The main opposition from registrars is the increased cost. Perhaps LWV can engage in an effort to get more trained election workers. The State should also be encouraged to update the rules and “salary” of poll workers to make the job more appealing.

**Vote by Mail**

In 1998, voters in Oregon passed an initiative requiring that they conduct all elections by mail. Voters may also drop their ballots off at a county designated official drop site. Oregon has since reduced the cost of elections, and the time available to tally votes has increased.

In 2011, the Washington legislature passed a law requiring all counties to conduct vote-by-mail elections. In Washington, ballots must be postmarked by Election Day, which helps to ensure all voters' votes are counted; ballot counting takes several days after
Election Day to receive and process ballots. Beginning in 2018 postage is prepaid so voters do not have to use a stamp.

In 2013, **Colorado** began holding all elections by mail. A Pantheon Analytics study of the 2014 election showed a significant uptick in voter participation from what would have normally been "low propensity" voters. A PEW Charitable Trust study of the same election showed significant cost savings.

In 2014, **Utah** started allowing each county to make their own decision regarding whether to go to 100% mailed-out ballots. In the 2016 general election, 21 of their 29 counties did so. That rose to 27 of 29 counties in 2018, covering over 98% of their electorate. A Pantheon Analytics study of Utah's 2016 general election showed a 5-7% point higher turnout in the counties using vote by mail than those with traditional polling places, with even higher differences (~10% points) among younger voters.

In 2016, **California** passed SB 450, which authorizes a rollout of vote by mail across the state, at county discretion. Five counties will do so in 2018. For 2020, all counties are authorized to do so, except Los Angeles County, which will be authorized in 2022.

Other jurisdictions are now starting to experiment with vote by mail, or run pilot programs. Thirty-one of fifty-three counties in North Dakota now vote by mail, as do over 1000 precincts in Minnesota (those with fewer than 400 registered voters). In 2018, pilot programs in Anchorage, Alaska exceeded previous turnout records and Garden County, Nebraska saw higher turnout versus the state average. Pilot programs in Rockville, MD in 2019 and Kauai County, HI in 2020 are planned. In 2018, Connecticut's Governor issued Executive Order 64, directing a study of a possible move to vote by mail. That report is due in September 2018.

**Restoration of Rights**

Based in our Jim Crowe history and used as a way to keep African Americans from voting – considering recent Virginia history we can make a louder case for legislation that removes the restriction felony voting rights.

- In Maine and Vermont, felons never lose their right to vote, even while incarcerated.
- In 14 states and the District of Columbia, felons lose their voting rights only while incarcerated, and receive automatic restoration upon release.
- In 22 states, felons lose their voting rights during incarceration, and for a period after, typically while on parole and/or probation. Former felons may also have to pay any outstanding fines, fees or restitution before restoration.
- In 12 states, felons lose their voting rights indefinitely for some crimes, or require a governor's pardon in order before restoration or face an additional waiting period after completion of sentence (including parole and probation) before restoration processes may begin. Of course, Virginia is in this category.
In 2018, Florida voters approved by 65 percent to “automatically” restore voting rights for convicted felons if they have completed their sentences, fulfilled probation requirements and paid any restitution and court costs. Problems are arising first because the state government is doing precious little to implement this. In fact, the executive branch is trying to halt it by saying legislation is needed to clarify this. The LWV Florida task force is opposing this. If there is legislation, there will be court cases because the legislation will more than likely thwart the will of the people.

There are also questions about the restitution and court costs. Arguments are also being made that even if the sentence has been served they may be “civil judgments” levied or threatened which may add more restitution.

In addition, if someone registers and does so incorrectly that is another felony.

Recommendation to Virginia: Make the wording very clear with nothing ambiguous.

This was legislation introduced and killed in 2019 – Constitutional Amendment – backed by ACLU, NAACP and LWV:

In elections by the people, the sole qualifications of voters shall be as follows: Each voter shall be a citizen of the United States, shall be eighteen years of age, shall fulfill the residence requirements set forth in this section, and shall be registered to vote pursuant to this article.– Every person who meets these qualifications shall have the fundamental right to vote in the Commonwealth, and such right shall not be abridged by law.

Working to establish this as law will again, I am sure, be a priority for all. The LWV Arlington Voter Access Committee is working on a pilot program to help people walk through the restoration process. LWV Birmingham, Alabama held a similar workshop in April.

Bill Farrar – Director of Communications – ACLU – bfarrar@aclu.org.

**Automatic Voter Registration**

Would require that one “opts out” or they are automatically registered. Most states run this through DMV for license or State IDs. Massachusetts also allows this through the State Medicare office. Maryland also processes through the health exchange and local social service office. Virginia should allow it and allow these other agencies to process legislation to assist those who do not have driver’s licenses.

In 2015, Oregon passed a law to register automatically, all qualified Oregonians (U.S. citizens, 18 or over) who have interacted with the DMV going back to 2013. They received mail notification that they had 21 days to opt out or to join a political party. (VA does not require party registration.) After 21 days they state automatically registered them as "non-affiliated."

After six days, they were on track to register four times as many voters as the state averaged in one month before the DMV partnership.
Recount Law and Procedures

The law

When there is between any candidate apparently nominated or elected and any candidate apparently defeated by a difference of not more than one percent of the total vote cast for the two such candidates as determined by the State Board or the electoral board, the defeated candidate may appeal from the determination of the State Board or the electoral board for a recount of the vote as set forth in this article.

When there is between any write-in candidate apparently nominated or elected and any candidate apparently defeated, or between any candidate apparently nominated or elected and any write-in candidate apparently defeated, a difference of not more than five percent of the total vote cast for the two such candidates as determined by the State Board or the electoral board, the defeated candidate may appeal from the determination of the State Board or the electoral board for a recount of the vote as set forth in this article.

When there is between the vote for a question and the vote against a question a difference of not more than fifty votes or one percent of the total vote cast for and against the question as determined by the State Board or the electoral board, whichever is greater, fifty or more voters qualified to vote on the question, by signing and filing their petition, may appeal from the determination of the State Board or the electoral board for a recount of the vote as set forth in this article.

The petition shall set forth the results certified by the Board or electoral board and shall request the court to have the ballots in the election recounted or, in the case of direct recording electronic machines, the vote redetermined.

In an election for office, a copy of the petition shall be served on the candidate apparently nominated or elected as provided under § 8.01-296 and within 10 days after the Board or electoral board has certified the results of such election. In a referendum, a copy of the petition shall be so served on the governing body or chief executive officer of the jurisdiction in which the election was held.

The chief judge of the circuit court in which a petition is filed shall promptly notify the Chief Justice of the Supreme Court of Virginia, who shall designate two other judges to sit with the chief judge, and the court shall be constituted and sit in all respects as a court appointed and sitting under

This is cumbersome and time consuming and subject to the political whims of the judges in question. It can also be cost prohibitive to the candidate asking for recount:

Costs of the recount shall be assessed against the counties and cities comprising the election district when (i) the candidate petitioning for the recount is declared the winner; (ii) the petitioners in a recount of a referendum win the recount; or
(iii) there was between the candidate apparently nominated or elected and the
candidate petitioning for the recount a difference of not more than one-half of
one percent of the total vote cast for the two such candidates as determined by
the State Board or electoral board prior to the recount. Otherwise the costs of the
recount shall be assessed against the candidate petitioning for the recount or the
petitioners in a recount of a referendum."

Possible solutions:

1. Virginia should become a mandated automatic recount state if the election
   results are within 1 percent for a candidate and 1000 votes for a referendum
   question.
2. Costs for the recount should be borne by the Commonwealth, not the candidates
   or localities.

Post-Election Risk Limiting Audits

A risk-limiting audit (RLA) is an audit of paper ballots (called “voter-verified” ballots)
cast during an election, conducted to limit the risk that the outcome of the election is
flawed. Such an audit takes the smallest statistically accurate selection of actual ballots
cast and compares them, through physical examination, with the equipment’s results to
determine whether there is a risk the apparent winner did not receive more votes than
the apparent loser. If the initial batches of ballots audited shows a discrepancy from the
results of the election, they select a larger sample. If that sample still indicates a
problem, they go to an even larger sample. Potentially, the audit could lead to a full
hand recount. Risk-limiting audits are the most certain, cost-effective, and efficient way
to verify the results of an election. Most experts say that an RLA is the only way to both
identify and correct problems in an election and to assure voters that their votes count.
Across the political spectrum, analysts agree that such audits are the fail-safe against
interference in our elections.

The problem: Virginia’s so-called risk-limiting audit law provides for audits to study
the accuracy of the voting equipment after the certification of election results, after it is
too late to audit the ballots to verify the results of an election

§ 24.2-671.1. Audits of ballot scanner machines.
A. The Department of Elections shall coordinate a post-election risk-limiting audit
annually of ballot scanner machines in use in the Commonwealth. The localities
selected for the audit shall be chosen at random with every locality participating in the
Department’s annual audit at least once during a five-year period. The purpose of
the audits shall be to study the accuracy of ballot scanner machines.
B. No audit conducted pursuant to this section shall commence until after the election has been certified and the period to initiate a recount has expired without the initiation of a recount. An audit shall have no effect on the election results.

C. All audits conducted pursuant to this section shall be performed by the local electoral boards and general registrars in accordance with the procedures prescribed by the Department. The procedures established by the Department shall include its procedures for conducting hand counts of ballots. Candidates and political parties may have representatives observe the audits.

D. The local electoral boards shall report the results of the audit of the ballot scanner machines in their jurisdiction to the Department. At the conclusion of each audit, the Department shall submit a report to the State Board. The report shall include a comparison of the audited election results and the initial tally for each machine audited and an analysis of any detected discrepancies.

Possible solution:

Virginia needs to legislate “real” risk-limiting audits. Because there are four different types of election machines used in Virginia and since jurisdictions vary in size and management, the Commonwealth should first conduct a series of pilot audits to determine which methodologies will yield best practices for each situation.

The City of Fairfax recently conducted a pilot risk-limiting audit under the supervision of the Commissioner of Elections and the local registrar, with expert observers present. The audit, of the Republican primary, was small (1,000 ballots cast in total) but deemed a success.

The League should encourage: (1) appropriate legislation to begin real risk-limiting audits sooner rather than later; and (2) pilot RLAs in jurisdictions across the Commonwealth to develop best practices.

Ranked Choice Voting:

Ranked choice voting lets voters rank their choices based on individual preference. First choices are counted, and if no candidate has a majority of the vote, an “instant runoff occurs in which the candidate with the least support is eliminated. Voters that picked the eliminated candidate as their first choice have their vote counted for their next choice. In a three-person race, we now have a winner with majority support in the final round of tabulation. In a race with more than three candidates, this process repeats until one candidate has a majority.

With Ranked-Choice Voting, if a candidate receives a majority (50%+1) of the first-choice votes cast for that office, that candidate is the winner. However, if no candidate
receives a majority of the first-choice votes cast, an elimination process begins. Next, each vote cast for that candidate goes to the voter's next-ranked choice among the remaining candidates. This elimination process will continue until one candidate receives a majority and becomes the winner.

The benefits of ranked choice voting?

It gives voters choices that are more meaningful: Ranked choice voting allows candidates from outside the two major parties to compete. It helps eliminates spoilers and strategic voting: Ranked choice voting allows voters to support their favorite candidate without worrying that they might “throw their vote away,” or worse, split their votes with like-minded voters and unintentionally help elect the candidate they like the least.

It reduces negative campaigning: Candidates running in ranked choice elections must ask for second and, sometimes, third choice rankings. Voters are less likely to rank a candidate highly who is negative toward their preferred candidate.

It reduces the influence of money in politics: Campaigns and special interest groups spend a lot of money on negative advertising. By making negative advertising less effective, ranked choice voting reduces the need for, and influence of, money in politics.

What are the concerns about ranked choice voting?

Tabulation - Under RCV, the ballot tabulation in districts that cross municipal boundaries will require central tabulation if there is no majority winner after the first round.

Cost – Ranked choice voting will require a complete change in ballots.

Time - Where there is a clear majority winner after the first round, voters learn of the winner on Election Night or soon thereafter, just as it is now. However, if additional tabulation rounds are required, it could take anywhere from a couple of days to a few weeks to have a winner, especially in competitive, statewide races, depending on implementation options.

National Popular Vote Compact:

The League of Women Voters believes that the Electoral College should be abolished. We support the use of the National Popular Vote Compact as one acceptable way to achieve the goal of the direct popular vote for election of the president until the abolition of the Electoral College is accomplished.

In every state that adopts the National Popular Vote Interstate Compact (NVPIC), every electoral vote for that state will go to the presidential candidate who wins the country’s
popular vote. Once enough states totaling 270 electoral votes adopt the NVPIC, we will elect the President by the popular vote making every vote count and the Electoral College obsolete. Currently The National Popular Vote law is law in 12 jurisdictions possessing 172 electoral votes (CA, CT, DC, HI, IL, MA, MD, NJ, NY, RI, VT, and WA).

The bill will take effect when enacted by states possessing an additional 98 electoral votes.

District of Columbia – Three electoral votes
Connecticut - Seven electoral votes
Hawaii – Four electoral votes
Illinois – 20 electoral votes
Maryland – 10 electoral votes
Massachusetts – 11 electoral votes
New Jersey – 14 electoral votes
Washington – 12 electoral votes
Vermont – Three electoral votes
California – 55 electoral votes
Rhode Island – Four electoral votes
New York – 29 electoral votes

Supporters believe the compact is legal under Article II of the U.S. Constitution, which establishes the plenary power of the states to appoint their electors in any manner they see fit. "Each State shall appoint, in such Manner as the Legislature thereof may direct, a Number of Electors, equal to the whole Number of Senators and Representatives to which the State may be entitled in the Congress".

A 2008 assessment by law school student David Gringer suggested that the NPVIC could potentially violate the Voting Rights Act of 1965, but the U.S. Department of Justice in 2012 precleared California’s entry into the compact under Section 5 of the Act, concluding that the compact had no adverse impact on California’s racial minority voters. FairVote’s Rob Richie says that the NPVIC "treats all voters equally"

I urge you all to read the study done by the LWV Fairfax Area:

By Rona Ackerman (Editor), Melissa Fitzgerald, Lisa Koteen Gerchick (LWV Arlington), Katharina Gollner Sweet, Hugh Haworth, Jacob Hurt, Sidney Johnson, Cindy Kalkwarf, Melanie Srivisal, and Anna Weber (LWV Arlington).
References:

“The Soldier Vote” Donald Inbody

https://www.brennancenter.org/analysis/expand-early-voting


https://www.brennancenter.org/analysis/voting-rights-restoration-efforts-virginia#.XHxbM7Epyd8.email

https://www.fairvote.org/new_ranked_choice_voting_in_states#2019_legislation_advancing_ranked_choice_voting
Voter Registration and Election System Security

By Rona Ackerman (Editor), Melissa Fitzgerald, Lisa Koteen Gerchick (LWV Arlington), Katharina Gollner-Sweet, Hugh Haworth, Jacob Hurt, Sidney Johnson, Cindy Kalkwarf, Melanie Srivisal, and Anna Weber (LWV Arlington).

Election system security is vital to the protection of our right to vote in our democracy. Influence campaigns and attempts to hack our election systems undermine the credibility of election results and cast doubts on the integrity of our election processes. U.S. intelligence agencies have concluded with high confidence that Russia orchestrated a cyber-campaign against our election systems in the 2016 presidential election and operated an influence campaign leveraging social media. According to the Director of National Intelligence (DNI), “Russian intelligence obtained and maintained access to elements of multiple U.S. state or local electoral boards. DHS [Department of Homeland Security] assesses that the types of systems Russian actors targeted or compromised were not involved in vote tallying” [bold in original text] [2]. In a December 2018 press release, the DNI reinforced this finding, stating that there was no intelligence that our nation’s election infrastructure was compromised but that foreign actors, including Russia, China, and Iran, were conducting social media campaigns. This study addresses protections for voter registration and the voting process, not the manipulation of social media.

What Are the Threats to Our Election Processes and How Can They Be Mitigated?

“Voting in the United States is a complicated process that involves multiple levels of government, personnel with a variety of skills and capabilities, and numerous electronic systems that interact in the performance of a multitude of tasks. Unfortunately, our current system is vulnerable to internal and external threats.” [4] The National Academies of Sciences, Engineering, and Medicine (NAS) recently studied our election processes and systems, identified threats to the integrity and accuracy of the election process, and developed recommendations to mitigate those threats. Their report, Securing the Vote: Protecting American Democracy, is a comprehensive guide to understanding the challenges in our election processes and what can be done to shore up the vulnerabilities. The following is a summary of NAS’s findings and their recommendations regarding security.

Components of Elections [5]

- Pollbooks connected to the Internet are convenient, easier to maintain, and often provide more data than paper pollbooks. Yet, they are vulnerable to Internet disruptions and hacking. Security standards and backup procedures should be developed by all jurisdictions using electronic pollbooks.

- Voting technologies and equipment age vary widely across states and local jurisdictions. Not all voting systems allow for independent audit of the ballots. Policies should be put in place for routine system modernization. Elections should be conducted with human-readable paper ballots to be counted by hand or by optical scanning machines.

- Voting system certification is performed by the federal government via the Election Assistance Commission (EAC) and/or the states. Election machine manufacturers must get their equipment certified by the EAC. The certification process for the manufacturer and the federal and state reviews can be lengthy, costly and cumbersome. The EAC should adopt new guidelines in order to streamline the certification process, foster innovation, and enhance cybersecurity.

Ensuring the Integrity of Elections

- There are concerns over malicious actors affecting not only the counting of ballots but of destroying the evidence needed to verify the election results. Electronic systems can be disrupted in myriad ways such as denial-of-service attacks and disruptive malware. NAS concluded that “there is no realistic mechanism to fully secure vote casting and tabulation computer systems from cyber threats.” [7]
The League of Women Voters® of the Fairfax Area Education Fund  March 2019

- U.S. election processes are decentralized; the Constitution gives individual states the responsibility over election processes and gives the federal government the ability to impose regulations. Thus, there is a variety of election processes across the states and localities. The federal government imposes regulations such as minimum voting age, accessibility, and a requirement for state-level voting registration; it also assists the states by providing election security funding and developing best practices and standards.

- Post-election audits are a key control over validating election security. NAS recommends that all states require post-election audits of technology, processes, and tabulation.

- The Risk-Limiting Audit (RLA) was recently piloted in several jurisdictions, including the City of Fairfax. “Risk-limiting audits implement a simple, compelling idea: instead of relying on the accuracy of voting machines, check enough ballots by hand to obtain strong evidence that the declared winner(s) of each audited contest really got more votes.” NAS recommends that “States should mandate risk-limiting audits prior to the certification of election results. With current technology, this requires the use of paper ballots. States and local jurisdictions should implement risk-limiting audits within a decade.”

Federal Role in Election Security

In January 2017, DHS designated election infrastructure as critical infrastructure (CI). However, DHS cannot regulate the systems and no other agency has been designated the authority at this time. The CI designation did make election security a DHS priority. Executive Order 13964, which allows the U.S. Department of the Treasury to impose economic sanctions on foreign actors attacking CI, was amended to include tampering with U.S. elections. Concern was expressed by election jurisdictions about unrequested involvement by DHS, but DHS provides assistance only on a voluntary basis. In addition, the CI designation mandates formal coordination capabilities, and DHS has launched two councils. In 2018, these two groups held four executive-level meetings collectively.

- The Government Coordinating Council has members from DHS and the EAC but is mainly comprised of local and state government election officials. It “enables local, state, and federal governments to share information and collaborate on best practices to mitigate and counter threats to election infrastructure.”

- The Sector Coordinating Council is comprised of private sector organizations dealing with election-related infrastructure. Its mission “is to advance the physical security, cyber security, and emergency preparedness of the nation’s election infrastructure, in accordance with existing U.S. law.”

There are five agencies that have roles related to elections: Election Assistance Commission (EAC), National Institute of Standards and Technology (NIST), Department of Justice, Department of Defense, and Federal Election Commission. For this study, we will briefly examine the role of EAC and NIST.

Election Assistance Commission (EAC)

After the 2000 presidential election, concern about the integrity of election systems grew. Two years later, Congress responded with the Help America Vote Act (HAVA) of 2002. Among its provisions was the creation of the EAC, a federal agency tasked with offering assistance to all levels of government administering federal elections. There have been contradictory efforts to both terminate and expand the EAC since then, but as of the writing of this report it was funded and the yet-to-be passed FY2019 funding bill does contain appropriations in both the House and Senate versions that closely resemble previous appropriations. The main duties of EAC are to:

- Provide states and D.C. funding to improve elections administration and adhere to HAVA requirements

- Award grants to election projects and programs

- Certify voting systems and testing laboratories

- Create Voluntary Voting Systems Guidelines

- Be a clearinghouse of leading practices

- Research elections

The EAC is comprised of four commissioners, with no more than two from any political party. A three-vote majority is needed. Two seats are currently vacant, but the Senate is expected to confirm these appointments soon.

On March 23, 2018, the Consolidated Appropriations Act was signed, which included $380 million to the EAC for grants to the states. Grant funds can be used for the following, at the discretion of the state:

- Replace voting equipment that records a voter’s intent only electronically with equipment that utilizes a voter-verified paper record

www.lwv-fairfax.org
Implement a post-election audit system that provides a high level of confidence in the accuracy of the final vote tally.

Upgrade election-related computer systems to address cyber vulnerabilities identified through DHS, or similar scans or assessments of existing election systems.

Facilitate cybersecurity training for the state chief election official’s office and local election officials.

Implement established cybersecurity best practices for election systems.

Fund other activities that will improve the security of elections for federal office.

National Institute of Standards and Technology (NIST)

NIST often works in conjunction with EAC, and the director of NIST is the chair of the Technical Guidelines Development Committee, one of EAC’s advisory bodies. Its involvement in election security is mandated both by HAVA and by the Military and Overseas Voter Empowerment Act. NIST’s two main election security activities currently are updating the Voluntary Voting Systems Guidelines and providing technical leadership for the creation of an Election Profile of the Cybersecurity Framework.

In 2015, the EAC approved Version 1.1 of the Guidelines. Along with over 960 stakeholders, NIST is leading the development of Version 2.0. Specifically related to cybersecurity, Guidelines 2.0 concentrates on advanced auditing methods, enhanced authentication requirements, and system integrity. The updated guidelines in general are focused on seven subjects:

- Pre-election process
- Election process
- Post-election process
- Cybersecurity
- Usability and Accessibility
- Interoperability
- Testing

NIST’s technical leadership in the creation of the Election Profile and Cybersecurity Framework is part of its membership in the Election Infrastructure Subsector Government Coordinating Council, which was formed following the CI designation. NIST is working with all levels of election officials to prioritize improvements to election cybersecurity in this role. One of NIST’s most important roles is guiding organizations through levels of risk assessment to determine the degree of harm and the likelihood of a threat. Not all threats are equally injurious or probable. NIST advises identifying:

- Relevant threats
- Vulnerabilities
- Impact or harm
- Likelihood that an event will occur.

Voter Registration in Virginia

When a person registers to vote in Virginia, that voter is able to cast a ballot during the next election. If the voter’s status does not change (as a result of, e.g., a change of address or a felony conviction), the voter’s registration remains valid. Most active voters routinely vote at their polling places on Election Day (or absentee beforehand) without a glitch. Virginia’s voter registration system, however, has some weaknesses.

The Virginia Department of Elections, also known as ELECT, maintains the list of registered voters. ELECT receives online registrations directly from the voter and from other sources, predominantly the Department of Motor Vehicles (DMV). As the September 2018 Joint Legislative Audit and Review Commission (JLARC) report on Operations and Performance of Virginia’s Department of Elections points out, there is an “…inherent tension between ensuring that the list is accurate and ensuring that it does not disenfranchise any eligible voters.” ELECT uses a variety of tools to maintain the list, such as the U.S. Postal Service’s National Change of Address Registry (NCOA) and the Electronic Registration Information Center (ERIC), a multistate data exchange partnership.

The list should be as up-to-date as possible, including existing and newly registered voters, while removing those who have moved out of state, been legally disenfranchised, or have died. However, the ultimate responsibility for determining registrants’ eligibility to vote and for registering voters lies with the general registrars of each locality in the Commonwealth. There is a wide range in size, staffing, and technical expertise of the 133 general registrars’ offices. For example, Fairfax County has more than 740,000 registered voters, 243 precincts, and 30 full-time staff in the registrar’s office. Highland County has fewer than 1,800 registered voters, six precincts, and a general registrar with no supporting staff.

ELECT’s Role: The risks to the voter registration system encompass both deliberate, malicious actions and benign, yet potentially damaging errors. ELECT’s list maintenance
procedures are fairly robust, using multiple sources like NCOA, ERIC, and the DMV to identify voters who should be removed or added.[25] Voters are not only able to register online but also to check their registrations and make address changes when they move. However, there is currently only one part-time staff position assigned to list maintenance and ELECT has no formal system in place to review and improve the list maintenance process.[26] The JLARC report criticizes ELECT for providing unclear, inconsistent, or erroneous guidance to local election officials. The report also suggests that some registrars and their staffs need better training, as well as better oversight from the state because they do not follow best practices in determining whether to add or remove voters from the voter registration list, even going so far as to offer the option that ELECT take over the voter registration function from the 133 registrars.[27]

VERIS: ELECT uses a computer system, the Virginia Election and Registration Information System (VERIS), to maintain the voter list and perform a range of other election-related functions. VERIS is acknowledged to lack certain functionality and be unreliable. Originally designed for another state in 2007, VERIS has been modified to attempt to meet Virginia’s needs. It can be slow and is prone to crashing under heavy usage.[28] Although Virginia’s cybersecurity is considered strong, VERIS, along with systems in other states, is vulnerable to cybersecurity threats. As one recent review of election systems explains, “If successfully breached, hackers could alter or delete voter registration information, which in turn could result in eligible voters being turned away at the polls or prevented from casting ballots that count. Hackers could, for example, switch just a few letters in a registered voter’s name without detection. In states [like Virginia] with strict voter ID laws, eligible voters could be prevented from voting because of discrepancies between the name in a pollbook and the individual’s ID.”[29] Despite VERIS’s age and poor design, ELECT requested, and the General Assembly appropriated, funds to rebuild rather than replace VERIS. JLARC believes this decision did not adequately account for the benefits of replacement: increased functionality, reliability, and security, nor did it account for the savings available from needing fewer IT staff to manage the system. In its report, JLARC urges the General Assembly and ELECT to revisit and potentially reverse that decision.[30]

DMV: In 2016, ELECT and DMV began using an automated process to register voters and update voter registrations through the DMV. The information is transmitted electronically to ELECT and on to the registrars, who approve the changes in VERIS.[31] While generally more efficient, unintentional errors have ensued from poor system design. Consequently, some voters may believe they registered when, in fact, they did not.[32] Recently, some registrars have expressed concern about the completeness of applications received from DMV.[33] The JLARC report recommends convening a workgroup to identify the changes needed to improve the reliability of the system. ELECT and DMV recently began to collaborate on revamping the voter registration process, with no deadline but a tentative goal of the June primaries for completion.

Purges: Virginia has a fairly cautious process for purging voters. Once a year, ELECT sends a notice (and postage paid return envelope) to each voter whose name appears on the NCOA registry. If the voter responds within 30 days, the voter’s registration remains intact. If the voter does not respond, the voter is listed as “inactive.” If the voter comes to vote during the succeeding two general federal elections, the status returns to “Active,” otherwise, the voter is purged from the list. Since 2013, Virginia has not been accused of improper or questionable purges, such as those identified in Georgia.[34]

Voter Registration: Preventive and Remedial Measures
Virginia’s government recognizes that its voter registration system has weaknesses and is responsive to the JLARC report’s criticisms. On April 17, 2018, Virginia received $9,080,731 in federal funds from the EAC, which the state matched with $454,037, bringing Virginia’s total funding to $9,534,76. These funds are available through March 23, 2023.[35] In December, the governor released the Executive Amendments to the 2018-2020 Biennial Budget, which proposes increased funding to address certain issues with the voter registration system.[36]

ELECT: The proposed budget amendments incorporate additional expenditures for ELECT, including two full-time equivalent staff positions “to enhance voter list maintenance auditing processes and implement standard list maintenance practices amongst general registrars.”[37] The accompanying Decision Package contains ELECT’s explanation that two additional full-time staff members—one more than JLARC recommended in its report—“would drastically increase the Department’s capabilities” to manage list maintenance processes, increase the frequency of updating the list using various resources, improve the name-matching algorithm, and review the coordination with the DMV. ELECT resists JLARC’s suggestion that the agency assume the registrars’ responsibilities for making decisions to register or remove voters.

VERIS: The executive amendments to the ELECT budget separately anticipate cybersecurity enhancements to VERIS
and expanded, better training for election officials. ELECT sees these steps as mainly supporting election [39] security, rather than protecting the voter registration list. [60] The upgrades would improve the system's defenses against hacking and some of the training could include how to handle voter registration correctly and consistently across the Commonwealth.

Even before any budget amendments were approved, ELECT took some steps to improve security. For example, weeks before the November 2018 election, ELECT presented the general registrars with a new two-factor authentication for system access. Because the new protocol came so close to the election when the registrars' offices were engulfed in Election Day preparations, it was deemed optional at the time; it is scheduled to be implemented statewide in February 2019. [41] ELECT does not appear to be considering replacing VCRIS altogether. While a new system might improve security, provide greater long-term safety and stability, and offer an electronic list maintenance system with a hardened and more user-friendly interface with DMV, users point out that every transition to a new system has the potential to create or reveal problems. [42]

**Purges:** While the steps Virginia takes before purging a voter are not unreasonable, without affirmative evidence that the individual has moved, died, or is otherwise ineligible, eligible voters can—and have been—denied the right to vote. Alternatives to purging “inactive” voters include changing the law to permit same-day registration or allowing voters to bring proof of residence. Registrars are concerned that same-day registration would create headaches and more bottlenecks in voting but other states have successfully adopted the practice. [43]

**Ballot Casting In Virginia**

In Virginia, there are several ways to cast a ballot. Most voters go to their polling places on Election Day, fill in the ovals or rectangles, and place their ballots in optical scan machines. Others, if they can validly claim one of the specified “excuses,” can mail in absentee ballots, provided they apply for, receive, and return the ballots on or before Election Day. [44] Voting absentee-in-person at a registrar's office or satellite polling place during a specified period before the election is another option for voters who can claim an “excuse.” Finally, military and other voters who are overseas can mail in ballots pursuant to the Military and Overseas Voter Empowerment Act. All of the ballots cast are paper, sent through optical scanners that record each vote and hold the ballot in a bin. Virginia receives praise for using only paper ballots, avoiding many of the risks of electronic voting. Paper ballots, marked by voters, are “voter-verified,” meaning that each voter confirms that the selection is hers or his before the ballot is cast, and the ballot itself is a record of that person's vote. [45]

**Ballots:** Straightforward as voting sounds, there are risks at each step. Poor ballot design, such as the infamous “butterfly ballot” in Palm Beach County, Florida in 2000, or ballots with rectangles instead of ovals to fill in, can confuse voters or prolong the time it takes for an individual to cast a ballot and contribute to long lines. [46] Deliberately or by accident, ballots can be lost, destroyed, damaged, or altered. Absentee ballots can arrive late to the voter, return late to the registrar, or be damaged, lost, destroyed or altered. "[47] These issues seem not to have plagued Virginia's elections, unfortunately. Nevertheless, election officials must exercise great care in the handling of ballots. The Arlington County Electoral Board and General Registrar have expressed concern about ballot storage before an election. [48] Some localities use the so-called “ballot-on-demand,” printing a ballot for each voter upon check-in. These localities need to be concerned about printer malfunctions, toner replacements, and additional wait times to vote if printing issues occur. Ballots are a major concern.

**Electronic Pollbooks:** Most localities in Virginia now use electronic pollbooks (EPBs). They are faster and more efficient than paper pollbooks unless they malfunction, which can occur with some predictability and frequency on Election Day. Some EPBs are at the end of their expected life cycles and registrars are either replacing them or requesting appropriations from local governments to replace them. [49] Even if all the EPBs function, there must be enough of them to handle the number of voters in a precinct. Additionally, like any electronic device, EPBs are potentially susceptible to hacking. Therefore, ELECT mandated that every polling place have a paper back-up pollbook on Election Day during the November 2018 election.

**Voting Machines:** Optical scanners, too, are vulnerable to machine malfunction. They can jam, fail to reject blank ballots, and occasionally two ballots get stuck together, altering the vote count. Complaints about voting equipment and long lines spiked during the 2018 general election. [50] Because the machines in Virginia are not internet-connected, they are not vulnerable to a remote, system-wide cyberattack. Nonetheless, knowledgeable authorities disagree as to whether Virginia’s optical scanners can be hacked. Some maintain that they cannot be hacked; [51] others point out that such machines are essentially computers and are therefore susceptible. [52] To the best of our knowledge, no optical scanners in the state have been subject to any
type of hacking.

Cybersecurity: While Virginia was one of the states whose election infrastructure was probed by foreign actors during the 2016 presidential election year, its system was sufficiently robust to dispel intrusion. VITA, the Virginia Information Technology Agency, gave ELECT’s cybersecurity an “A” in both Audit Compliance and Risk Compliance.[53] However, there are other elements to an election system, including the election management system and the election night reporting system, that are vulnerable.

The JLARC report states that VERIS “does not perform perhaps the most important electoral function—recording and tabulating ballots.”[54] The general registrars are responsible for this. VERIS currently handles voter registration, maintains the voter list, keeps track of candidates and petitions, helps keep track of geographic information for assigning voters to precincts and legislative districts, and manages absentee voting and records election results.[53]

Training Election Personnel: Although there are potential risks to ballots, voting equipment, and electronic systems, it’s people who administer elections. ELECT’s staff has experienced high turnover, losing institutional memory and knowledge as a result.[56] ELECT is charged with overseeing elections statewide,[57] yet the JLARC report finds that the guidance and oversight that ELECT staff provides to officials in each locality are inconsistent and sometimes incorrect.[58] The offices of the general registrars around the Commonwealth vary widely in size, funding, experience, and expertise. In these offices are the individuals responsible not only for registering voters but for reviewing applications for absentee ballots, mailing applications and absentee ballots, printing regular ballots, storing, maintaining, and testing voting equipment, training election workers, preparing materials and supplies, administering both absentee voting and the voting on Election Day, and checking and storing the equipment and completed ballots. Like all humans, these officials are occasionally prone to error, even as, under great stress and without sufficient resources (in certain localities), they enable the basic exercise of citizens’ civic duty. JLARC finds that ELECT should increase oversight, ensure accurate and uniform guidance, improve the training of its own staff and election officials statewide, and perhaps even assume some of the functions of the general registrars.[59] There seems to be a consensus, including among the registrars themselves, that additional training is imperative.[60]

Ballot Casting: Preventive and Remedial Measures
Virginia is poised to make improvements to its electoral system. Through better, more widespread training and by implementing best practices statewide, both ELECT and the local registrars could enhance election security and improve voter experience in Virginia’s annual elections. Also, by using paper ballots, Virginia has laid the groundwork for safeguarding its elections.

Risk-Limiting Audits: In 2007, the concept of risk-limiting audits was introduced, and in 2010 the EAC provided grants to “... support research, development, documentation and dissemination of a range of procedures and processes for managing and conducting high-quality logic and accuracy testing and post-election audit activities. California, Colorado, and Ohio used the awarded grant money to conduct research on RLAs, and from 2008 until present, RLAs have been conducted in jurisdictions in California, Colorado, Indiana, Ohio, and Virginia.”[61] By definition, an RLA “... provides strong statistical evidence that the outcome of an election is right and has a high probability of correcting an incorrect outcome.”[62] An RLA is an audit of cast ballots selected by random sampling right after an election and before the election is certified, to verify the outcome. The audit limits the risk that the outcome was wrong. In a nutshell, election officials compare randomly selected sample batches of cast ballots to the machine counts generated during the election. The sample size is determined in part by the apparent margin of victory in the contest; the wider the margin, the smaller the sample has to be. If the machine counts and the hand-to-eye ballot examinations show a result that matches perfectly or within a small predetermined margin of error, the audit can stop and the election results are certified. If the results do not correlate, however, the sample size must increase. If the comparisons continue to indicate that the outcome was in error despite ever-larger samples, the audit could end in a full hand-recount. The election cannot be certified until the RLA has ended.[63] In this way, not only is the election audited in a cost-effective way to ensure that the result is accurate but, if the result were wrong, the audit corrects the error.

Virginia has a “risk-limiting audit” law, Section 24.2-671.1 of the Code of Virginia, which is due to take effect in July 2019. This law, however, provides for audits of election machines in one-fifth of localities after an election and after certification of the election’s results. It specifies that the audit cannot affect the outcome of an election. In other words, its sole purpose is to test whether machines functioned properly during the election. This is not a true RLA.

Fairfax City conducted the first (and so far, only) pilot RLA in Virginia, an audit of the June 2018 Republican primary. [64] Experts who observed the audit heralded its success.[65] General registrars do not necessarily understand how RLAs
work and, understandably, confuse them with the existing law, which connotes machine audits with true RLAs. The Commissioner of Elections is supposed to issue instructions or guidance before the law must take effect in July 2019. Registrars are taking a wait-and-see approach. Virginia already has paper ballots, which are essential to conducting a RLA. The next steps are to conduct more pilot audits, see how best to execute RLAs across the entire Commonwealth, and then ultimately, to amend the law to institute post-election, pre-certification audits of election outcomes.

**Voting Machines:** Although ELECT approves the types of voting machines that may be used in the Commonwealth, the local electoral boards, through the registrars, purchase the equipment and hold maintenance contracts with the vendors. Local governments provide funding for equipment, software, and staff. ELECT can assist with the HAVA funds granted, if it so chooses. It is essential for the electoral boards and general registrars to have adequate funds, not only for the purchase of new equipment but for maintenance, upgrades, and cybersecurity, as well as physical security.

**Cybersecurity:** Cybersecurity is a paramount concern, which the governor is addressing by proposing to allocate $3 million of HAVA funds awarded to Virginia “to enhance the security of the state’s election infrastructure, including the Virginia Election and Registration Information System (VERIS).” The Decision Package further elaborates that ELECT intends to draw on “…standards and best practices provided by Virginia Information Technologies Agency (VITA) and the Center for Internet Security,” noting that VITA applies security standards devised by NIST. ELECT warns, “Not using the 2018 HAVA funds to increase the security posture of the Commonwealth election system will reduce the public confidence in the election process…”

**Training:** The administration’s proposed amendments to the Biennial Budget allocate $607,500 toward enhanced training for election officials. In particular, ELECT anticipates adding “three full-time equivalent positions and resources to develop and maintain expanded curriculum and availability of training programs for local election officials across the Commonwealth.” This does not address JLARC’s suggestion that ELECT improve training for its own staff, but it does propose to fund one additional full-time equivalent position for fiscal and administrative support within the agency. The three staff positions and supporting resources, if approved, would go far toward ensuring consistency and accuracy in information and practices among all the localities. Better-trained election officials would also be better able to recruit and train the first-line workers in the polling places on Election Day.

**Conclusion**
Virginia received a “C” grade from the Center for American Progress in Election Security in All 50 States: Defending America’s Elections (February 2018), primarily because the Commonwealth has not yet instituted risk-limiting audits. In other respects, Virginia is making progress. With improved list maintenance, enhanced cybersecurity, and better-trained election officials, Virginia will be on the road toward making voting more convenient, safer from cyber-intrusion, and more uniform in implementation across the Commonwealth. Over $6 million in HAVA funds have yet to be allocated to support the goal of making Virginians confident that their votes count the way they cast them.

**What Actions Can the League Take?**
For the League to take action, we need to have a position that we have developed through study and consensus. In 1982, the national League of Women Voters (LWVUS) adopted this position under Citizen’s Right to Vote: “The League of Women Voters believes voting is a fundamental citizen right that must be guaranteed.” This position allows local, state, and national Leagues to take action when the right to vote has the potential to be abrogated. We can and should let our government officials know that they can do more to assure that every Virginian’s vote is accurately counted. As appropriate, we can lobby for/against legislation related to voter registration and election security.

**Examples of National Work**
With the passage of the 2002 Help America Vote Act (HAVA), “LWVUS took a leadership role in forming an election reform coalition to develop recommendations on HAVA implementation and testified before both houses, stressing the importance of substantial new federal funding for election reform efforts.”

LWVUS’s 2004 report, Helping America Vote: Safeguarding the Vote, has recommendations for improving the security of the voting process, including the use of certified machinery, training officials, bipartisan monitoring of procedures at all stages, and physical security. It noted that establishing uniform statewide practices would eliminate many anomalies and advocates direct electronic registration by the applicant, a method that has by now been established in 37 states. Once established, however, there is still much to be done to maintain the accuracy of the voter registration database. For example, the report recommends that voters be assigned unique identifiers.
At the LWVUS Convention in 2006, members passed a resolution that supported only using voting systems that had voter verifiable-paper ballots that could be counted independently. The convention in 2010 reinforced that resolution and added the principle of transparency.74

LWVUS’s Election Audits Task Force published Report on Election Auditing in 2009. It built on recommendations in Helping America Vote. But focused more narrowly on step-by-step procedures for auditing the vote-casting process. This report also argued that clear direction and training of staff are essential to the proper management of the process.75

Jessica Jones Capparell, the Policy and Legislative Affairs Senior Manager for LWVUS, provided a set of initiatives that LWVUS undertakes:

- Supporting the EAC. Congress has attempted several times to consolidate the services of EAC or get rid of the commission entirely. Each time, an attempt like this is made, the League springs into action to protect the valuable services that the EAC provides to election administrators across the country.

- Advocating for voters to have access to their registration information and status.

- Meeting with election officials throughout the year to ensure they are prepared for Election Day. Leagues have helped stay in touch with election officials to also assist voters when changes are necessary to polling locations or voting procedures.

- Advising Leagues regarding actions or recommendations on voting machines in their states.

- Leagues also work to follow up with public on next steps for provisional ballots following an election. This helps ensure that all votes are counted.

- Advocating for risk-limiting audits76

LWV-VA

Our state League has formed a private Facebook group, LWV-VA Voting & Elections. League members can meet here to share and discuss news related to voting rights, voter suppression, and election modernization.77 As LWV-VA members, we all can apply to the Administrator through Facebook to join.

One of LWV-VA’s legislative priorities for advocacy in Elections and Voting is supporting risk-limiting audits. LWV-VA states that “Virginia needs to legislate ‘real’ risk-limiting audits because there are four different types of election machines used in Virginia and since jurisdictions vary in size and management, the Commonwealth should first conduct a series of pilot audits to determine which methodologies will yield best practices for each situation.”78 In 2018, bills were introduced in the Senate and House of Delegates to require ELECT to set up a work group to study post-election audits,79 but they were stopped in committees. There are no bills concerning post-election audits in the 2019 list of proposed legislation.80

LWV-VA keeps us informed with articles such as Eight ways you can protect our elections from cyberattacks81 and Rethinking election security.82

Local Virginia Leagues

LWV Richmond Metropolitan Area (LWV RMA) has an Election Modernization Committee. The chair is Jane Newell, who has spoken with one of our authors about monitoring the Virginia Benchmark Index Workgroup, which is developing metrics to measure elections.83 The LWV Arlington has an Election Security Committee, which hosted a forum on October 2, 2018. LWVFA conducted interviews with the general registrars of Fairfax County and City of Fairfax, and reported on them in the February 2018 Fairfax VOTER. Members discussed the report at February unit meetings.

This study group, whose members are in both the Fairfax Area and Arlington Leagues, will be continuing to study and report on this issue. To build on the work in this article, we plan to send a questionnaire to all of the general registrars in Northern Virginia. One of the questions would concern their plans to pilot or adopt the risk-limited audit. This is an issue we can study further. You can join the study group by emailing sidneyjohnson3@verizon.net.

Since our Northern Virginia Leagues are near Washington D.C., we can attend lectures and panel discussions held by national-level agencies and organizations about making sure that our electoral process is as free as possible from international or domestic interference. By sharing what we learn from these resources, we can serve state and local Leagues across the country.

Going forward, Virginia’s local Leagues and LWV-VA can monitor events, advocate for improvements, coordinate with other Leagues, and educate the public. Protecting the vote is the job of all League members. It is vital to maintain the public’s trust in the election system.

Editor’s Note: Due to the length of this study, End Notes can be accessed on the League’s website <https://www.lwv-fairfax.org>
Endnotes for the study


2 DNI, 2017 p. 1


5 National Academies, Chapter 4

6 National Academies, Chapter 5

7 National Academies, Page 92

8 U.S Constitution, Article 1 section 4


10 National Academies, Page 101


13 DHS Topics: Election Security

14 CRS The Designation of Election Systems, p.1


20 Virginia Code § 24.2-404.


Virginia Code §24.2-417.
24 JLARC p5
26 JLARC Report, pp. 18-19.
28 JLARC Report, pp. 27-30, and interviews with general registrars in the counties of Arlington (Oct. 3, 2018, Fairfax (Dec. 14, 2018) and Fauquier (Oct. 12, 2018), and the City of Alexandria (Dec. 6, 2018).
30 JLARC Report, Recommendations 11, 12 and 13, pp. vi, 32 and 33.
32 Interview with Fauquier County General Registrar and members of the Fauquier Electoral Board, Oct. 12, 2018.
41 [Email from Alexander Ables, General Registrar, Fauquier County, Jan. 17, 2019.]
42 Email from Arlington County Registrar’s office, Jan. 17, 2019.
43 “Securing the Vote,” p. 36.
44 HB 1628, HB 1641, SB 1026, SB 1035, and SB 1075 are all pending bills that call for either adding an excuse or eliminating the excuse requirement altogether.
46 “Securing the Vote,” pp. 71-77.
49 See, e.g., Arlington Electoral Board Strategic Plan, p. 2. Fauquier County is now in the process of purchasing new EPBs.
51 Interview with Fairfax City Electoral Board member, Jan. 16, 2019.
54 JLARC Report, p. 27.
55 JLARC, at 28.
57 Code of Virginia, §24.3-103.
60 Comments made at the Fauquier County Electoral Board meeting, December 7, 2018, during a planning session for the annual meeting of the Voting Registrars Association of Virginia.
62 Random selection is not arbitrary. Rather, it involves precise, statistically accurate methodology for selection.
See generally, “Principles and Practices of Post-Election Audits,”
http://electionaudits.org/files/best%20practices%20final_0.pdf

Virginia Department of Elections, “City of Fairfax Post-Election, Risk-Limiting Audit Pilot,”


JLARC Report, p. 36

Department of Planning and Budget. Executive Amendment to the Biennial Budget – 2019-20 Biennium,


Department of Planning and Budget.


Impact on Issues 2016-2018, p. 11

Tracy Warren, Lloyd Leonard, Jeanette Senecal and Kelly Ceballos. Helping America Vote: Safeguarding the Vote.
https://www.lwv.org/sites/default/files/voting_safeguarding_color.pdf


Jessica Jones Capparell, Personal Communication, January 16, 2019

League of Women Voters of Virginia. Facebook Groups. https://lwv-va.org/members-corner/facebook-working-groups/


https://lis.virginia.gov/search.htm?query=risk+limited+audit&button.x=10&button.y=13


Jane Newell, personal communication, December 15, 2018
Election system security is vital to the protection of our right to vote in our democracy. Influence campaigns and attempts to hack our election systems undermine the credibility of election results and cast doubts on the integrity of our election processes. US intelligence agencies have concluded with high confidence that Russia orchestrated a cyber-campaign against our election systems in the 2016 presidential election, and operated an influence campaign leveraging social media.\(^1\) According to the Director of National Intelligence (DNI), “Russian intelligence obtained and maintained access to elements of multiple US state or local electoral boards. DHS [Department of Homeland Security] assesses that the types of systems Russian actors targeted or compromised were not involved in vote tallying” [bold in original text].\(^2\) In a December 2018 press release, the DNI reinforced this finding, stating that there was no intelligence that our nation’s election infrastructure was compromised, but that foreign actors, including Russia, China, and Iran, were conducting social media campaigns.\(^3\) This study addresses protections for voter registration and the voting process, not the manipulation of social media.

What Are The Threats to our Election Processes and How Can They Be Mitigated?

“Voting in the United States is a complicated process that involves multiple levels of government, personnel with a variety of skills and capabilities, and numerous electronic systems that interact in the performance of a multitude of tasks. Unfortunately, our current system is vulnerable to internal and external threats.”\(^4\) The National Academies of Sciences, Engineering, and Medicine (NAS) recently studied our election processes and systems, identified threats to the integrity and accuracy of the election process, and developed recommendations to mitigate these threats. Their report, *Securing the Vote: Protecting American Democracy*, is a comprehensive guide to understanding the challenges in our election processes and what can be done to shore up the vulnerabilities. The following is a summary of NAS’s findings and their recommendations regarding security.

**Components of Elections**\(^5\)

- Voter registration and registration lists. Electronic voter databases may be easier to maintain and more accurate than paper sources but are subject to cybersecurity vulnerabilities and attacks. Election administrators should regularly assess database integrity. States should require administrators to report any detected compromises to both state and federal authorities.
- Voting by mail is more convenient, accessible, and less costly than in-person voting. However, vote-by-mail increases the chance of lost ballots. All jurisdictions should provide the ability for a voter to determine if a ballot has been mailed and when the marked ballot has been received and accepted by election officials.
- Pollbooks connected to the internet are convenient, easier to maintain, and often provide more data than paper pollbooks. Yet, they are vulnerable to internet disruptions and hacking. Security standards and backup procedures should be developed by all jurisdictions using electronic pollbooks.
- Voting technologies and equipment age vary widely across states and local jurisdictions. Not all voting systems allow for independent audit of the ballots. Policies should be put in place for routine system modernization. Elections should be conducted with human-readable paper ballots to be counted by hand or by optical scanning machines.
- Voting system certification is performed by the federal government via the Election Assistance Commission (EAC) and/or the states. Election machine manufacturers must get their equipment certified by the EAC. The certification process for the manufacturer and the federal and state reviews can be
lengthy, costly and cumbersome. The EAC should adopt new guidelines in order to streamline the certification process, foster innovation, and enhance cybersecurity.

Ensuring the Integrity of Elections

- There are concerns over malicious actors affecting not only the counting of ballots, but of destroying the evidence needed to verify the election results. Electronic systems can be disrupted in a myriad of ways such as denial of service attacks and disruptive malware. NAS concluded that “there is no realistic mechanism to fully secure vote casting and tabulation computer systems from cyber threats.”
- US election processes are decentralized; the Constitution gives individual states the responsibility over election processes and gives the federal government the ability to impose regulations. Thus, there is a variety of election processes across the states and localities. The federal government imposes regulations such as minimum voting age, accessibility, and a requirement for state level voting registration; it also assists the states by providing election security funding and developing best practices and standards.
- Post-election audits are a key control over validating election security. NAS recommends that all states require post-election audits of technology, processes, and tabulation.
- The Risk-Limiting Audit (RLA), was recently piloted in several jurisdictions, including the City of Fairfax. “Risk-limiting audits implement a simple, compelling idea: instead of relying on the accuracy of voting machines, check enough ballots by hand to obtain strong evidence that the declared winner(s) of each audited contest really got more votes.” NAS recommends that “States should mandate risk-limiting audits prior to the certification of election results. With current technology, this requires the use of paper ballots. States and local jurisdictions should implement risk-limiting audits within a decade.”

Federal Role in Election Security

In January 2017, DHS designated election infrastructure as critical infrastructure (CI). However, DHS cannot regulate the systems and no other agency has been designated the authority at this time. The CI designation did make election security a DHS priority. Executive Order 13964, which allows the Department of Treasury to impose economic sanctions on foreign actors attacking CI, was amended to include tampering with US elections. Concern was expressed by election jurisdictions about unrequested involvement by DHS, but DHS provides assistance only on a voluntary basis. In addition, the CI designation mandates formal coordination capabilities, and DHS has launched two councils. In 2018, these two groups held four executive-level meetings collectively.
- The Government Coordinating Council has members from DHS, the EAC, but is mainly comprised of local and state government election officials. It “enables local, state, and federal governments to share information and collaborate on best practices to mitigate and counter threats to election infrastructure.”
- The Sector Coordinating Council is comprised of private sector organizations dealing with election-related infrastructure. Its mission “is to advance the physical security, cyber security, and emergency preparedness of the nation’s election infrastructure, in accordance with existing U.S. law.”

There are five agencies that have roles related to elections: Election Assistance Commission (EAC), National Institute of Standards and Technology (NIST), Department of Justice, Department of Defense, and Federal Election Commission. For this study, we will briefly examine the role of EAC and NIST.

Election Assistance Commission (EAC)

After the 2000 presidential election, concern about the integrity of election systems grew. Two years later, Congress responded with the Help America Vote Act (HAVA) of 2002. Among its provisions was the creation of the EAC, a federal agency tasked with offering assistance to all levels of government administering federal elections. There have been contradictory efforts to both terminate and expand the EAC since then, but as of the writing of this report it was funded and the yet-to-be passed FY2019 funding bill does contain appropriations in both the House and Senate versions that hew close to previous appropriations. The main duties of EAC are:
- Provide states and DC funding to improve elections administration and adhere to HAVA requirements
- Award grants to election projects and programs
- Certify voting systems and testing laboratories
- Create Voluntary Voting Systems Guidelines
- Be a clearinghouse of leading practices
- Research elections

The EAC is comprised of four commissioners, with no more than two from any political party. A three-vote majority is needed. Two seats are currently vacant, but the Senate is expected to confirm these appointments soon.

On March 23, 2018, the Consolidated Appropriations Act\textsuperscript{16} was signed, and included $380 million to the EAC for grants to the states. Grant funds can be used for the following, at the discretion of the state:
- Replace voting equipment that only records a voter's intent electronically with equipment that utilizes a voter verified paper record
- Implement a post-election audit system that provides a high level of confidence in the accuracy of the final vote tally
- Upgrade election related computer systems to address cyber vulnerabilities identified through DHS, or similar scans or assessments of, existing election systems
- Facilitate cybersecurity training for the state chief election official's office and local election officials
- Implement established cybersecurity best practices for election systems
- Fund other activities that will improve the security of elections for federal office

National Institute of Standards and Technology (NIST)

NIST often works in conjunction with EAC, and the director of NIST is the chair of the Technical Guidelines Development Committee, one of EAC’s advisory bodies. Its involvement in election security is mandated both by HAVA and by the Military and Overseas Voter Empowerment Act.\textsuperscript{17} NIST’s two main election security activities currently are updating the Voluntary Voting Systems Guidelines and providing technical leadership for the creation of an Election Profile of the Cybersecurity Framework.\textsuperscript{18}

In 2015, the EAC approved Version 1.1 of the Guidelines. Along with over 960 stakeholders, NIST is leading the development of Version 2.0. Specifically related to cybersecurity, Guidelines 2.0 concentrates on advanced auditing methods, enhanced authentication requirements, and system integrity. The updated guidelines in general are focused on seven subjects:
- Pre-election process
- Election process
- Post-election process
- Cybersecurity
- Usability and Accessibility
- Interoperability
- Testing

NIST’s technical leadership in the creation of the Election Profile and Cybersecurity Framework is part of its membership in the Election Infrastructure Subsector Government Coordinating Council, which was formed following the CI designation. NIST is working with all levels of election officials to prioritize improvements to election cybersecurity in this role. One of NIST’s most important roles is guiding organizations through levels of risk assessment to determine the degree of harm and the likelihood of a threat. Not all threats are equally injurious or probable. NIST advises identifying
- Relevant threats
- Vulnerabilities
- Impact or harm
Likelihood that an event will occur

Voter Registration in Virginia

When a person registers to vote in Virginia, that voter is able to cast a ballot during the next election. If the voter’s status does not change (as a result of, e.g., a change of address or a felony conviction), the voter’s registration remains valid. Most active voters routinely vote at their polling places on Election Day (or absentee beforehand) without a glitch. Virginia’s voter registration system, however, has some weaknesses.

The Virginia Department of Elections, also known as ELECT, maintains the list of registered voters. ELECT receives online registrations directly from the voter and from other sources, predominantly the Department of Motor Vehicles (DMV). As the September 2018 Joint Legislative Audit and Review Commission (JLARC) report on Operations and Performance of Virginia’s Department of Elections points out, there is an “inherent tension between ensuring that the list is accurate and ensuring that it does not disenfranchise any eligible voters.” ELECT uses a variety of tools to maintain the list, such as the US Postal Service’s National Change of Address Registry (NCOA) and the Electronic Registration Information Center (ERIC), a multistate data exchange partnership.

The list should be as up-to-date as possible, including existing and newly registered voters, while removing those who have moved out of state, been legally disenfranchised, or have died. However, the ultimate responsibility for determining registrants’ eligibility to vote and for registering voters lies with the general registrars of each locality in the Commonwealth. There is a wide range in size, staffing, and technical expertise of the 133 general registrars’ offices. For example, Fairfax County has more than 740,000 registered voters, 243 precincts, and 30 full-time staff in the registrar’s office. Highland County has less than 1,800 registered voters, six precincts, and a general registrar without any supporting staff.

ELECT’s Role: The risks to the voter registration system encompass both deliberate, malicious actions and benign, yet potentially damaging errors. ELECT’s list maintenance procedures are fairly robust, using multiple sources like NCOA, ERIC, and the DMV to identify voters who should be removed or added. Voters are not only able to register online, but also to check their registrations and make address changes when they move. However, there is currently only one part-time staff position assigned to list maintenance and ELECT has no formal system in place to review and improve the list maintenance process. The JLARC report criticizes ELECT for providing unclear, inconsistent, or erroneous guidance to local election officials. The report also suggests that some registrars and their staffs need better training, as well as better oversight from the state because they do not follow best practices in determining whether to add or remove voters from the voter registration list, even going so far as to offer the option that ELECT take over the voter registration function from the 133 registrars.

VERIS: ELECT uses a computer system, the Virginia Election and Registration Information System, (VERIS), to maintain the voter list and perform a range of other election-related functions. VERIS is acknowledged to lack certain functionality and be unreliable. Originally designed for another state in 2007, VERIS has been modified to attempt to meet Virginia’s needs. It can be slow and is prone to crashing under heavy usage. Although Virginia’s cybersecurity is considered strong, VERIS, along with systems in other states, is vulnerable to cybersecurity threats. As one recent review of election systems explains, “If successfully breached, hackers could alter or delete voter registration information, which in
turn could result in eligible voters being turned away at the polls or prevented from casting ballots that count. Hackers could, for example, switch just a few letters in a registered voter’s name without detection. In states [like Virginia] with strict voter ID laws, eligible voters could be prevented from voting because of discrepancies between the name [in a pollbook] and the individual’s ID.

Despite VERIS’s age and poor design, ELECT requested, and the General Assembly appropriated, funds to rebuild rather than replace VERIS. JLARC believes this decision did not adequately account for the benefits of replacement: increased functionality, reliability, and security, nor did it account for the savings available from needing fewer IT staff to manage the system. In its report, JLARC urges the General Assembly and ELECT to revisit and potentially reverse that decision.

DMV: In 2016, ELECT and DMV began using an automated process to register voters and update voter registrations through the DMV. The information is transmitted electronically to ELECT and on to the registrars, who approve the changes in VERIS. While generally more efficient, unintentional errors have ensued from poor system design. Consequently, some voters may believe they registered when, in fact, they did not. Recently, some registrars have expressed concern about the completeness of applications received from DMV. The JLARC report recommends convening a workgroup to identify the changes needed to improve the reliability of the system. ELECT and DMV recently began to collaborate on revamping the voter registration process, with no deadline but a tentative goal of the June primaries for completion.

Purges: Virginia has a fairly cautious process for purging voters. Once a year, ELECT sends a notice (and postage paid return envelope) to each voter whose name appears on the NCOA registry. If the voter responds within 30 days, the voter’s registration remains intact. If the voter does not respond, the voter is listed as “Inactive.” If the voter comes to vote during the succeeding two general federal elections, the status returns to “Active,” otherwise, the voter is purged from the list. Since 2013, Virginia has not been accused of improper or questionable purges, such as those identified in Georgia.

Voter Registration: Preventive and Remedial Measures

Virginia’s government recognizes that its voter registration system has weaknesses and is responsive to the JLARC report’s criticisms. On April 17, 2018, Virginia received $9,080,731 in federal funds from the EAC, which the state matched with $454,037, bringing Virginia’s total funding to $9,534,76. These funds are available through March 23, 2023. In December, the governor released the Executive Amendments to the 2018-2020 Biennial Budget, which proposes increased funding to address certain issues with the voter registration system.

ELECT: The proposed budget amendments incorporate additional expenditures for the ELECT, including two full-time equivalent staff positions “to enhance voter list maintenance auditing processes and implement standard list maintenance practices amongst general registrars.” The accompanying Decision Package contains ELECT’s explanation that two additional full-time staff members—one more than JLARC recommended in its Report—“would drastically increase the Department’s capabilities” to manage list maintenance processes, increase the frequency of updating the list using various resources, improve the name-matching algorithm, and review the coordination with the DMV. ELECT resists
JLARC’s suggestion that the agency assume the registrars’ responsibilities for making decisions to register or remove voters.38

VERIS: The executive amendments to the ELECT budget separately anticipate cybersecurity enhancements to VERIS and expanded, better training for election officials.39 ELECT sees these steps as mainly supporting election security, rather than protecting the voter registration list.40 The upgrades would improve the system’s defenses against hacking and some of the training could include how to handle voter registration correctly and consistently across the Commonwealth.

Even before any budget amendments were approved, ELECT took some steps to improve security. For example, weeks before the November 2018 election, ELECT presented the general registrars with a new two-factor authentication for system access. Because the new protocol came so close to the election when the registrars’ offices were engulfed Election Day preparations, it was deemed optional at the time; it is scheduled to be implemented statewide in February 2019.41 ELECT does not appear to be considering replacing VERIS altogether. While a new system might improve security, provide greater long-term safety and stability, and offer an electronic list maintenance system with a hardened and more user-friendly interface with DMV, users point out that every transition to a new system has the potential to create or reveal problems.42

Purges: While the steps Virginia takes before purging a voter are not unreasonable, without affirmative evidence that the individual has moved, died, or is otherwise ineligible, eligible voters can—and have been—disenfranchised. Alternatives to purging “Inactive” voters include changing the law to permit same-day registration or allowing voters to bring proof of residence. Registrars are concerned that same-day registration would create headaches and more bottlenecks in voting but other states have successfully adopted the practice.43

Ballot Casting In Virginia

In Virginia, there are several ways to cast a ballot. Most voters go to their polling places on Election Day, fill in the ovals or rectangles, and place their ballots in optical scan machines. Others, if they can validly claim one of the specified “excuses,” can mail in absentee ballots, provided they apply for, receive, and return the ballots on or before Election Day.44 Voting absentee-in-person at a registrar’s office or satellite polling place during a specified period before the election is another option for voters who can claim an “excuse.” Finally, military and other voters who are overseas can mail in ballots pursuant to the Military and Overseas Voter Empowerment Act. All of the ballots cast are paper, sent through optical scanners that record each vote and hold the ballot in a bin. Virginia receives praise for using only paper ballots, avoiding many of the risks of electronic voting. Paper ballots, marked by voters, are “voter-verified,” meaning that each voter confirms that the selections are hers or his before the ballot is cast, and the ballot itself is a record of that person’s vote.45

Ballots: Straightforward as voting sounds, there are risks at each step. Poor ballot design, such as the infamous “butterfly ballot” in Palm Beach County, Florida in 2000, or ballots with rectangles instead of ovals to fill in, can confuse voters or prolong the time it takes for an individual to cast a ballot and contribute to long lines.46 Deliberately or by accident, ballots can be lost, destroyed, damaged, or altered. Absentee ballots can arrive late to the voter, return late to the registrar, or be damaged, lost, destroyed or altered.47 These issues seem not to have plagued Virginia’s elections, fortunately. Nevertheless, election
officials must exercise great care in the handling of ballots. The Arlington County Electoral Board and General Registrar have expressed concern about ballot storage before an election.\textsuperscript{48} Some localities use the so-called “ballot-on-demand,” printing a ballot for each voter upon check-in. These localities need to be concerned about printer malfunctions, toner replacements, and additional wait times to vote if printing issues occur. Ballots are a major concern.

**Electronic Pollbooks:** Most localities in Virginia now use electronic pollbooks (EPBs). They are faster and more efficient than paper pollbooks unless they malfunction, which can occur with some predictability and frequency on Election Day. Some EPBs are at the end of their expected life cycles and registrars are either replacing them or requesting appropriations from local governments to replace them.\textsuperscript{49} Even if all the EPBs function, there must be enough of them to handle the number of voters in a precinct. Additionally, like any electronic device, EPBs are potentially susceptible to hacking. Therefore, ELECT mandated that every polling place have a paper back-up pollbook on Election Day during the November 2018 election.

**Voting Machines:** Optical scanners, too, are vulnerable to machine malfunction. They can jam, fail to reject blank ballots, and occasionally two ballots get stuck together, altering the vote count. Complaints about voting equipment and long lines spiked during the 2018 general election.\textsuperscript{50} Because the machines in Virginia are not internet-connected, they are not vulnerable to a remote, system-wide cyberattack. Nonetheless, knowledgeable authorities disagree as to whether Virginia’s optical scanners can be hacked. Some maintain that they cannot be hacked;\textsuperscript{51} others point out that such machines are essentially computers and are therefore susceptible.\textsuperscript{52} To the best of our knowledge, no optical scanners in the state have been subject to any type of hacking.

**Cybersecurity:** While Virginia was one of the states whose election infrastructure was probed by foreign actors during the 2016 presidential election year, its system was sufficiently robust to dispel intrusion. VITA, the Virginia Information Technology Agency, gave ELECT’s cybersecurity an “A” in both Audit Compliance and Risk Compliance.\textsuperscript{53} However, there are other elements to an election system, including the election management system and the election night reporting system, that are vulnerable.

The JLARC report states that VERIS “does not perform perhaps the most important electoral function—recording and tabulating ballots.”\textsuperscript{54} The general registrars are responsible for this. VERIS currently handles voter registration, maintains the voter list, keeps track of candidates and petitions, helps keep track of geographic information for assigning voters to precincts and legislative districts, and manages absentee voting and records election results.\textsuperscript{55}

**Training Election Personnel:** Although there are potential risks to ballots, voting equipment, and electronic systems, it’s people who administer elections. ELECT’s staff has experienced high turnover, losing institutional memory and knowledge as a result.\textsuperscript{56} ELECT is charged with overseeing elections statewide,\textsuperscript{57} yet the JLARC report finds that the guidance and oversight that ELECT staff provides to officials in each locality are inconsistent and sometimes incorrect.\textsuperscript{58} The offices of the general registrars around the Commonwealth vary widely in size, funding, experience and expertise. In these offices are the individuals responsible not only for registering voters but for reviewing applications for absentee ballots,
mailing applications and absentee ballots, printing regular ballots, storing, maintaining, and testing voting equipment, training election workers, preparing materials and supplies, administering both absentee voting and the voting on Election Day, and checking and storing the equipment and completed ballots. Like all humans, these officials are occasionally prone to error, even as, under great stress and without sufficient resources (in certain localities), they enable the basic exercise of citizens’ civic duty. JLARC finds that ELECT should increase oversight, ensure accurate and uniform guidance, improve the training of its own staff and election officials statewide, and perhaps even assume some of the functions of the general registrars. There seems to be a consensus, including among the registrars themselves, that additional training is imperative.

Ballot Casting: Preventive and Remedial Measures

Virginia is poised to make improvements to its electoral system. Through better, more widespread training and by implementing best practices statewide, both ELECT and the local registrars could enhance election security and improve voter experience in Virginia’s annual elections. Also, by using paper ballots, Virginia has laid the groundwork for safeguarding its elections.

Risk-Limiting Audits: In 2007, the concept of risk-limiting audits was introduced, and in 2010 the EAC provided grants to “support research, development, documentation and dissemination of a range of procedures and processes for managing and conducting high-quality logic and accuracy testing and post-election audit activities. California, Colorado, and Ohio used the awarded grant money to conduct research on RLAs, and from 2008 until present, RLA pilots have been conducted in jurisdictions in California, Colorado, Indiana, Ohio, and Virginia.” By definition, an RLA “provides strong statistical evidence that the outcome of an election is right and has a high probability of correcting an incorrect outcome.” An RLA is an audit of cast ballots selected by random sampling right after an election and before the election is certified, to verify the outcome. The audit limits the risk that the outcome was wrong. In a nutshell, election officials compare randomly selected sample batches of cast ballots to the machine counts generated during the election. The sample size is determined in part by the apparent margin of victory in the contest: the wider the margin, the smaller the sample has to be. If the machine counts and the hand-to-eye ballot examinations show a result that matches perfectly or within a small predetermined margin of error, the audit can stop and the election results are certified. If the results do not correlate, however, the sample size must increase. If the comparisons continue to indicate that the outcome was in error despite ever-larger samples, the audit could end in a full hand-recount. The election cannot be certified until the RLA has ended. In this way, not only is the election audited in a cost-effective way to ensure that the result is accurate but, if the result were wrong, the audit corrects the error.

Virginia has a “risk-limiting audit” law, section 24.2-671.1 of the Code of Virginia, which is due to take effect in July 2019. This law, however, provides for audits of election machines in one-fifth of localities after an election and after certification of the election’s results. It specifies that the audit cannot affect the outcome of an election. In other words, its sole purpose is to test whether machines functioned properly during the election. This is not a true RLA.

Fairfax City conducted the first (and so far, only) pilot RLA in Virginia, an audit of the June 2018 Republican primary. Experts who observed the audit heralded its success. General registrars do not necessarily understand how RLAs work and, understandably, confuse them with the existing law, which conflates machine audits with true RLAs. The Commissioner of Elections is supposed to issue
instructions or guidance before the law must take effect in July 2019. Registrars are taking a wait-and-see approach. Virginia already has paper ballots, which are essential to conducting a RLA. The next steps are to conduct more pilot audits, see how best to execute RLAs across the entire Commonwealth, and then ultimately, to amend the law to institute post-election, pre-certification audits of election outcomes.

**Voting Machines**: Although ELECT approves the types of voting machines that may be used in the Commonwealth, the local electoral boards, through the registrars, purchase the equipment and hold maintenance contracts with the vendors. Local governments provide funding for equipment, software, and staff. ELECT can assist with the HAVA funds granted, if it so chooses. It is essential for the electoral boards and general registrars to have adequate funds, not only for the purchase of new equipment but for maintenance, upgrades, and cybersecurity, as well as physical security.

**Cybersecurity**: Cybersecurity is a paramount concern, which the governor is addressing by proposing to allocate $3 million of HAVA funds awarded to Virginia “to enhance the security of the state’s election infrastructure, including the Virginia Election and Registration Information System (VERIS).” The Decision Package further elaborates that ELECT intends to draw on “standards and best practices provided by Virginia Information Technologies Agency (VITA) and the Center for Internet Security,” noting that VITA applies security standards devised by NIST. ELECT warns, “Not using the 2018 HAVA funds to increase the security posture of the Commonwealth election system will reduce the public confidence in the election process…”

**Training**: The administration’s proposed amendments to the Biennial Budget allocate $607,500 toward enhanced training for election officials. In particular, ELECT anticipates adding “three full-time equivalent positions and resources to develop and maintain expanded curriculum and availability of training programs for local election officials across the Commonwealth.” This does not address JLARC’s suggestion that ELECT improve training for its own staff, but it does propose to fund one additional full-time equivalent position for fiscal and administrative support within the agency. The three staff positions and supporting resources, if approved, would go far toward ensuring consistency and accuracy in information and practices among all the localities. Better-trained election officials would also be better able to recruit and train the first-line workers in the polling places on Election Day.

**Conclusion**

Virginia received a “C” grade from the Center for American Progress in *Election Security in All 50 States: Defending America’s Elections* (February 2018), primarily because the Commonwealth has not yet instituted risk-limiting audits. In other respects, Virginia is making progress. With improved list maintenance, enhanced cybersecurity, and better-trained election officials, Virginia will be on the road toward making voting more convenient, safer from cyber-intrusion, and more uniform in implementation across the Commonwealth. Over $6 million in HAVA funds have yet to be allocated to support the goal of making Virginians confident that their votes count the way they cast them.
What Actions Can the League Take?

For the League to take action, we need to have a position that we have developed through study and consensus. In 1982, the national League of Women Voters (LWVUS) adopted this position under Citizen’s Right to Vote: “The League of Women Voters believes voting is a fundamental citizen right that must be guaranteed.” This position allows local, state, and national Leagues to take action when the right to vote has the potential to be abrogated. We can and should let our government officials know that they can do more to assure that every Virginian’s vote is accurately counted. As appropriate, we can lobby for/against legislation related to voter registration and election security.

Examples of National Work

With the passage of the 2002 Help America Vote Act (HAVA), “LWVUS took a leadership role in forming an election reform coalition to develop recommendations on HAVA implementation and testified before both houses, stressing the importance of substantial new federal funding for election reform efforts.”

LWVUS’ 2004 report, Helping America Vote: Safeguarding the Vote, has recommendations for improving the security of the voting process, including the use of certified machinery, training officials, bipartisan monitoring of procedures at all stages, and physical security. It noted that establishing uniform statewide practices would eliminate many anomalies and advocates direct electronic registration by the applicant, a method that has by now been established in 37 states. Once established, however, there is still much to be done to maintain the accuracy of the voter registration database. For example, the report recommends that voters be assigned unique identifiers.

At LWVUS Convention in 2006, members passed a resolution that supported only using voting systems that had voter verifiable paper ballots that could be counted independently. The convention in 2010 reinforced that resolution and added the principle of transparency.

LWVUS’ Election Audits Task Force published Report on Election Auditing in 2009. It built on recommendations in Helping America Vote, but focused more narrowly on step-by-step procedures for auditing the vote-casting process. This report also argued that clear direction and training of staff are essential to the proper management of the process.

Jessica Jones Capparell, the Policy and Legislative Affairs Senior Manager for LWVUS, provided a set of initiatives that LWVUS undertakes:

- Supporting the EAC. Congress has attempted several times to consolidate the services of the EAC or get rid of the commission entirely. Each time an attempt like this is made, the League springs into action to protect the valuable services that the EAC provides to election administrators across the country.
- Advocating for voters to have access to their registration information and status.
- Meeting with elections officials throughout the year to ensure they are prepared for Election Day. Leagues have helped stay in touch with elections officials to also assist voters when changes are necessary to polling locations or voting procedures.
- Advising Leagues regarding actions or recommendations on voting machines in their states.
- Leagues also work to follow up with the public on next steps for provisional ballots following an election. This helps ensure that all votes are counted.
- Advocating for risk limiting audits

LWV-VA

Our state League has formed a private Facebook group, LWV-VA Voting & Elections. League members can meet here to share and discuss news related to voting rights, voter suppression, and election modernization. As LWV-VA members, we all can apply to the Administrator through Facebook to join.
One of LWV-VA’s legislative priorities for advocacy in Elections and Voting is supporting risk limiting audits. LWV-VA states that “Virginia needs to legislate ‘real’ risk-limiting audits because there are four different types of election machines used in Virginia and since jurisdictions vary in size and management, the Commonwealth should first conduct a series of pilot audits to determine which methodologies will yield best practices for each situation.”

In 2018, bills were introduced in the Senate and House of Delegates to require the ELECT to set up a work group to study post-election audits, but they were stopped in committees. There are no bills concerning post-election audits in the 2019 list of proposed legislation.

LWV-VA keeps us informed with articles such as *Eight ways you can protect our elections from cyberattack* and *Rethinking election security*.

**Local Virginia Leagues**

LWV Richmond Metropolitan Area (LWV RMA) has an Election Modernization Committee. The chair is Jane Newell, who has spoken with one of our authors about monitoring the Virginia Benchmark Index Workgroup, which is developing metrics to measure elections. The LWV Arlington has an Election Security Committee, which hosted a forum on October 2, 2018. LWVFA conducted interviews with the general registrars of Fairfax County and City of Fairfax, and reported on that in the February 2018 *Fairfax Voter*.

This study group, whose members are in both the Fairfax Area and Arlington Leagues, will be continuing to study and report on this issue. To build on the work in this article, we plan to send a questionnaire to all of the general registrars in Northern Virginia. One of the questions would concern their plans to pilot or adopt the risk-limited audit. This is an issue we can study further. You can join the study group by emailing sidneyjohnson3@verizon.net.

Since our Northern Virginia Leagues are near Washington D.C., we can attend lectures and panel discussions held at by national-level agencies and organizations about making sure that our electoral process is as free as possible from international or domestic interference. By sharing what we learn from these resources, we can serve state and local Leagues across the country.

Going forward, Virginia’s local Leagues and LWV-VA can monitor events, advocate for improvements, coordinate with other Leagues, and educate the public. Protecting the vote is the job of all League members. It is vital to maintain the public’s trust in the election system.

DNI, 2017 p. iii


National Academies, Chapter 4

National Academies, Chapter 5

National Academies, Page 92

U.S Constitution, Article 1 section 4


National Academies, Page 101


The Designation of Election Systems, p.1


Public Law 115-141 - Consolidated Appropriations Act https://www.govinfo.gov/content/pkg/BILLS-115hr1625enr/html/BILLS-115hr1625enr.htm

Public Law 111-84 - Military and Overseas Voter Empowerment Act (MOVE) https://www.govinfo.gov/content/pkg/PLAW-111publ84/html/PLAW-111publ84.htm


Virginia Code § 24.2-404.


JLARC Report, p. 12.

Virginia Code §24.2-417.

JLARC Report, p. 5.

JLARC Report, p. 12.

JLARC Report, pp. 18-19.


JLARC Report, pp. 27-30, and interviews with general registrars in the counties of Arlington (Oct. 3, 2018, Fairfax (Dec. 14, 2018) and Fauquier (Oct. 12, 2018), and the City of Alexandria (Dec.6, 2018).


JLARC Report, Recommendations 11, 12 and 13, pp. vi, 32 and 33.


Interview with Fauquier County General Registrar and members of the Fauquier Electoral Board, Oct. 12, 2018.


41 Email from Alexander Ables, General Registrar, Fauquier County, Jan. 17, 2019.

42 Email from Arlington County Registrar’s office, Jan. 17, 2019.

43 *Securing the Vote*, p. 36.

44 HB 1628, HB 1641, SB 1026, SB 1035, and SB 1075 are all pending bills that call for either adding an excuse or eliminating the excuse requirement altogether.


46 *Securing the Vote*, pp. 71-77.


49 Arlington Electoral Board Strategic Plan, p. 2.


51 Interview with Fairfax City Electoral Board member, Jan. 16, 2019.


54 JLARC Report, p. 27.

55 JLARC Report, p. 28.


57 Code of Virginia, §24.3-103.


59 JLARC Report, recommendations 14-19, pp. vii, 35-46

60 Comments made at the Fauquier County Electoral Board meeting, December 7, 2018, during a planning session for the annual meeting of the Voting Registrars Association of Virginia.


66 JLARC Report, p. 36


70 Biennial Budget p. B-35.
The National Popular Vote, Explained

The Electoral College is one of the most undemocratic features of U.S. elections.

Alex Cohen The Brennan Center - https://www.brennancenter.org/blog/national-popular-vote-explained

Colorado, New Mexico, and Delaware just became the latest states to take a stand against the Electoral College and join the National Popular Vote Interstate Compact (NPV, or the Compact). The NPV is a multi-state agreement that, when active, would ensure that the presidential candidate who wins the popular vote nationally also wins in the Electoral College. With signatures of Governors Jared Polis of Colorado, Michelle Lujan Grisham of New Mexico, and John Carney of Delaware expected, this trio of states will have pledged themselves to the growing nationwide effort.

The states’ approval of the Compact is a victory for democracy and the principle of “one person, one vote.”

However, this does not mean that Colorado, New Mexico, and Delaware will award their collective 17 electoral votes to the biggest national vote-getter in 2020. There’s still more work to be done before we can wave goodbye to the current function of the Electoral College—one of the most fundamentally undemocratic parts of U.S. elections.

Here’s what you need to know about National Popular Vote and the Electoral College:

**How does NPV work?**

In the current Electoral College system, the presidency is awarded to the candidate who wins at least 270 of the 538 available electoral votes. The Constitution gives state legislatures the right to choose how presidential electors are chosen. Since the 19th century, each state (with the exceptions of Maine and Nebraska) has awarded its electoral votes to the winner of the popular vote in that state. But under the NPV system, states would commit to award their electoral votes to the winner of the national popular vote instead.

The Compact will go into effect only when states controlling at least 270 electoral votes have joined. In the election after that threshold is reached, the NPV states would ensure that the winner of the national popular vote becomes president. While the Compact would not abolish the Electoral College, it would guarantee that the winner of the Electoral College vote and popular vote are the same.

The campaign to pass the Compact began in 2006, earning its first victory in Maryland the following year. Since then, 14 states (Maryland, New Jersey, Illinois, Hawaii, Washington, Massachusetts, Vermont, California, Rhode Island, New York, Connecticut, Colorado, New Mexico, Delaware) and Washington, D.C. have signed on. The addition of these three new states brings the number of pledged electoral votes to 189, 70 percent of the needed total.
Why not stick with the Electoral College?

The Electoral College is one of the most unique—and undemocratic—elements of the U.S. government. It was originally included in the Constitution as a means to thwart direct democracy. Many of the framers of the Constitution were uncomfortable with giving power to the people, and in part devised the Electoral College as a democratic bypass. The Electoral College was also designed to protect the influence of slave states. Under a provision that counted slaves as three-fifths of a person for purposes of representation in Congress, Southern slave states gained outsize influence in selecting the president. The system has endured despite the expansion of suffrage and the abolition of slavery.

But the problems with the Electoral College extend beyond its historical roots. Basing the elector count off of congressional delegations continues to give disproportionate voting power to people in smaller states. For example, Wyoming voters have nearly four times as much influence as California voters do.

Additionally, under the Electoral College system, electoral outcomes can undermine the popular vote. Because 48 states and Washington, D.C. award their votes on a winner-take-all basis,* it is technically possible for a candidate to win the presidency with around 23 percent of the national popular vote. While that’s unlikely to ever happen, the system can and does fail. In the 1991 book Wrong Winner: The Coming Debacle in the Electoral College, two political scientists predicted that the Electoral College would select the “wrong winner” within twenty years. As we have seen, their forecast turned out to be correct—twice since 2000.

The best permanent solution is to amend the Constitution to abolish the Electoral College. But the system remains intact despite numerous attempts to abolish it in the last two centuries—more than 700, according to the Congressional Research Service.

When has the Electoral College picked the “wrong winner”?

The candidates who won the popular vote have lost in the Electoral College in two out of the last five presidential elections. In the 2000 election, just 537 votes in Florida (and a 5-4 Supreme Court decision that prevented a recount) kept Al Gore from the White House, even though he received over half a million more total votes nationally than George W. Bush. And in 2016, Donald Trump won the Electoral College by a larger margin than Bush despite receiving 2.9 million fewer votes than Hillary Clinton.

This “wrong winner” scenario has happened three additional times in U.S. history.

Back in 1824, John Quincy Adams lost the popular vote and the electoral college to Andrew Jackson. But no candidate received a majority of the Electoral College votes, so the race was decided in the House of Representatives. In the infamous “corrupt bargain,” Speaker of the House Henry Clay delivered Adams the presidency in exchange for his appointment as Adams’ Secretary of State.

In 1876, Democratic candidate Samuel J. Tilden won the popular vote, but 20 of the electoral votes were contested. Election Day had been tainted with violence and fraud, and in several states, both parties declared that their candidates had prevailed. In the Compromise of 1877, the
disputed electoral votes were awarded to Republican candidate Rutherford B. Hayes in exchange for the removal of Northern troops from the South and the end of Reconstruction. And in 1888, incumbent President Grover Cleveland won the popular vote against Benjamin Harrison but lost two states by less than 1 percent—and consequently, the Electoral College.

We will likely see more failures of the Electoral College system in the future. According to Sam Wang, a neuroscientist and election expert at Princeton, “in elections where the popular vote margin [is less than] 3%,” it’s probable that “the Presidency goes to the popular-vote loser about 1 in 3 times.” With the rise of partisan polarization across the country and margins under three percent in three out of the last five presidential elections, it’s highly probable that the system will thwart the will of the majority of the nation’s voters again.

**How does the Electoral College disenfranchise voters?**

The Electoral College system effectively marginalizes the tens of millions of voters living in solidly red and blue states. In a winner-take-all system, any votes over the 50 percent margin are considered “wasted votes.” This means that voters in states with a heavy partisan lean have a lower chance of actually impacting the election. Public awareness of this fact also potentially lowers voter turnout.

Some claim that the Electoral College amplifies the voices of voters in small states—but it’s actually only a handful of battleground or swing states that receive most of the attention. During the 2016 presidential race, two-thirds (273 of 399) of the general-election campaign events took place in just 6 states (Florida, North Carolina, Pennsylvania, Ohio, Virginia, and Michigan), according to National Popular Vote, an organization that advocates for the Compact. Small states were largely ignored—as were the populous states of New York, Texas, and California, which were viewed as reliably red or blue.

With the NPV, every vote would have equal weight, giving campaigns the incentive to engage with voters in every state.

**What’s next for NPV?**

The addition of three states in one year is a big win for NPV, and it might not stop there. The Compact is currently under consideration in fourteen additional legislatures in every party of the country. That means there are 150 potential electoral votes that could be added to the total in 2019.

The Compact might not succeed in all of the states in which it has been introduced. But the recent momentum demonstrates that lawmakers across the country see that it might be finally possible to reform the outmoded, undemocratic Electoral College.

*Nebraska and Maine split their electoral votes between the statewide winner and the winner in each Congressional District.*