

COUNTING VOTES 2012: A State by State Look at Voting Technology Preparedness

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ABOUT THE VERIFIED VOTING FOUNDATION

The Verified Voting Foundation is a non-partisan, non-profit organization working to safeguard elections in the digital age. Verified Voting is a national advocate for resilient and verifiable voting systems and processes, and a comprehensive resource of information on voting system use throughout the country. The organization was founded and is governed by leading technologists, and keeps a tradition of technical attention to voting systems and their accuracy, security and resilience against threats of failure and fraud. Verified Voting advocates for secure, reliable and accessible voting systems and election administration practices.

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The Constitutional Litigation Clinic at Rutgers School of Law has worked on cutting-edge constitutional reform since its founding in 1970. Since 2004 it has served as lead counsel in litigation challenging New Jersey's use of paperless electronic voting systems. The Clinic and its faculty have litigated numerous landmark cases in state, federal and international tribunals, including in the United States Supreme Court. Among the Clinic's cases are: the nation's first suits challenging government surveillance of political activists; litigation establishing constitutional rights in private shopping malls, community associations and prisons; litigation establishing that non-treaty-based customary international human rights law is viable for abuses committed in the U.S., and protecting the rights of alternative political parties. In 2008 the Clinic was awarded the Clinical Legal Education Association's "Best Case of the Year" Award for Excellence in a Public Interest Case or Project. Each year, the Clinic runs an Election Day project to assist voters who were wrongfully turned away from polling places.

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The Common Cause Education Fund is the research and public education affiliate of Common Cause, a non-partisan, non-profit advocacy organization founded in 1970 by John Gardner as a vehicle for citizens to make their voices heard in the political process and to hold their elected leaders accountable to the public interest. With a 38-year track record, chapters in 35 states, and nearly 400,000 members and supporters across the country, Common Cause is one of the nation's oldest, largest and most effective grassroots advocacy organizations dedicated to reforming government and strengthening democracy in America. Together, Common Cause and the Common Cause Education Fund work to ensure honest and verifiable elections, to curb the political influence of big money, and to promote ethical government and also the diverse and accessible media that is essential for our democracy.

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METHODOLOGY

This report is an update for 2012 of the 2008 report *Is America Ready to Vote: State Preparations for Voting Machine Problems in 2008*, co-authored by Verified Voting, Common Cause and the Brennan Center for Justice at New York University Law School and available at the following link: http://brennan.3cdn.net/25d625d26984068522_4fm6v2wgf.pdf. That report described election procedures in 50 states and the District of Columbia in four categories: (1) whether or not jurisdictions use any sort of paper ballot voting system, to enable electronic tallies to be audited; (2) where direct recording electronic (DRE) voting systems are used, whether or not jurisdictions are prepared to provide voters with emergency paper ballots in the event of machine failure; (3) whether or not jurisdictions conduct audits of electronic tallies using paper ballots or voter verifiable paper audit records; and (4) whether or not jurisdictions have good ballot accounting and reconciliation procedures. In addition to updating the report to reflect any changes in the procedures and requirements with respect to the four categories of readiness described above, this report includes a new category: (5) whether or not jurisdictions require a paper ballot for military and overseas (and in a few cases other) voters, or allow the use of electronic methods such as Internet portals, e-mail or facsimile instead.

The three-step methodology for the production of this report was largely the same as for the 2008 report. First, attorneys and law students at the Rutgers Law School Newark Constitutional Litigation Clinic reviewed state statutes, regulations, and directives relating to the areas of focus in this report. Second, staff at Verified Voting presented these initial findings to the office of the chief election official in each state to confirm that our analysis of each state's practices was accurate, and to ascertain any additional information relevant to this report. These exchanges were conducted largely by the use of e-mailed surveys setting forth the 2012 procedures and requirements for each state. In addition, Verified Voting and Common Cause staff contacted a representative sampling of county clerks or other election officials in each state to confirm the state's policies and practices and to gain further insight into the elements of voting system preparedness at the local level. Once this information was synthesized into summaries, Verified Voting sent copies of the summaries to the office of the chief election official in each state for final review. Comments from election officials in every state and the District of Columbia were incorporated into the final draft of this report.

The recommended best practices on preparedness are based upon actual practices in place in certain counties and states, and were developed in consultation with election officials and election experts, both inside and outside of the three original author-organizations.

The methodology for scoring states on their compliance with the best practices for each of the five categories of election system preparedness is described in each section of the report. The "best prepared" and the "least prepared" states are those with the highest and the lowest aggregate scores in all five categories, respectively.

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INTRODUCTION

On November 6, 2012, it is highly likely that some voting systems will fail in counties across the country. More than 300 voting machine problems were reported to election protection hotlines during the 2010 mid-term elections, and more than 1,800 were reported during the 2008 general election.¹ Because we cannot predict where machines will fail in 2012, every state should be as prepared as possible for system failures. Vigilance will help ensure that machinery-related problems do not interfere with the right of eligible citizens to vote, or imperil the accuracy of the vote count.

In every national election in the past decade, computerized voting systems have failed: machines did not start or failed in the middle of voting,² memory cards could not be read,³ votes were mis-tallied⁴ or lost,⁵ and more.⁶ What follows are examples of just some of the more highly publicized problems, only some of which could be resolved by election officials or courts:

- In the 2008 Minnesota Senate election, candidate Norm Coleman was reported to be ahead of candidate Al Franken by 215 votes on the basis of the initially reported electronic tallies. The close margin in the race, in which almost 3 million votes were cast, triggered a mandatory recount. As a result, Al Franken was confirmed to have won by 225 votes.⁷ The paper ballot voting system had to be audited fully to determine the correct election results.
- In the 2008 Republican presidential primary in Horry County, South Carolina, touch screen direct recording electronic (DRE) voting machines in 80% of precincts temporarily failed, and election officials sent voters to cast provisional ballots at other precincts.⁸
- During early voting in the 2008 presidential election in West Virginia, at least sixteen voters across six counties reported that when they selected Obama on the state's touch screen DRE voting machines, the machine switched their vote to McCain.⁹ This phenomenon is known as "vote flipping" and there have been a number of cases of it reported anecdotally over the years. In this case, some county officials blamed calibration and screen oversensitivity, while others blamed human error, saying the voters were not careful enough in making their selections.¹⁰
- In the March 2008 primaries, the Global Election Management System (or GEMS) election management software in Butler County, Ohio reported that all computer cards had been read, even though at least two cards holding ballot totals had not been uploaded.¹¹ Ultimately, 200 votes were not counted.¹² Butler County subsequently filed a lawsuit against machine and software manufacturer Premier Election Solutions, and its then-parent company Diebold, Inc., regarding the faulty voting systems.¹³ In 2011, Premier and Diebold paid Butler County \$1.5 million to settle the suit.¹⁴
- In the November 2008 general election, the same GEMS software failed to count five votes in the City of Trotwood, Ohio.¹⁵ Even though election workers uploaded

the memory card and the vote-counting software read the card, the five votes from Trotwood were not tabulated; the missing votes were only discovered during a statewide manual audit of the software.¹⁶

- In November 2010, again in Butler County, voting machines had calibration problems, causing their screens to lock up and requiring election officials to redirect voters to working machines.¹⁷ A spokeswoman for the elections board reported that there were approximately 1,600 machines in the field on Election Day, and that “there were roughly 1,000 problem calls, about 50 percent of which were calibration issues of some sort.”¹⁸
- Following a June 2009 municipal and school election, officials in Pennington County, South Dakota, discovered that a software failure added thousands of non-existent votes to the county totals.¹⁹ While each precinct reported the correct total, when officials added the tallies of three ballot-scanning machines together, a software malfunction added thousands of votes to the grand total.²⁰ Officials had not been keeping a manual tally of the votes cast, but suspected the total provided by the scanners was too high. The problem was attributed to a software malfunction in the central tabulator; a manual audit revealed the mistake, and officials corrected the results, avoiding a run-off election.²¹
- In October 2010 in Craven County, North Carolina touch screen DREs changed votes for straight Republican tickets to votes for straight Democrat tickets. Election officials attributed the problem to calibration and noted that they “would prefer to see a return to paper balloting.”²²
- In the November 2010 general election in Utah County, Utah, as soon as the polls opened, election workers discovered that the voting machines could not recognize the security cards, and failed to bring up the ballot on the screen.²³ Although the issue was eventually resolved, it caused long delays throughout the county.²⁴
- In June 2011, during the Democratic primary election in Cumberland County, New Jersey a paperless DRE voting machine used in one district attributed votes to the wrong candidates declaring the actual losers as victors. The county and the Attorney General’s Office acknowledged that the voting machine used in the election switched votes and that it had been programmed incorrectly, and a new election was held pursuant to a court order.²⁵
- In a municipal election in Palm Beach County, Florida in March 2012, a “synchronization” problem with the election management software allotted votes to both the wrong candidate and the wrong contest; “[t]he results were officially changed . . . after a court-sanctioned public hand count of the votes.”²⁶

These problems come as no surprise to those who have studied election administration in the United States. Our elections are so complex, and involve so many jurisdictions, varying technologies, voters, technicians and election workers, that problems are inevitable. In

addition, as the technology used for elections has become more complicated, the possibility of error has increased substantially.

Thus, it is necessary to institute procedures that will make it possible for jurisdictions to detect and resolve mistakes and malfunctions when they occur. Indeed many of the problems discussed above either were, or could have been, resolved through the implementation of the best practices recommended by this report. Had the paper optical scan ballots used statewide in Minnesota not been available to be recounted, someone who lost the election would now be representing Minnesota in the U.S. Senate. Had there been emergency paper ballots in the polling places in Horry County with malfunctioning machines, voters would have been able to vote immediately, without having to go elsewhere, and on standard ballots. Had there been no audit in Palm Beach County, again, the wrong candidate would have been seated in office.

This report tries to answer one essential question: in the event of voting systems failures, how prepared is each state to ensure that every voter can vote and that every vote cast is counted?

In doing so, the report discusses in great detail what officials are and are not obligated to do by law, and whether those obligations comport with best practices for running elections. Although it takes effort and resources to do so, our best practices have already been implemented in a number of states, with overwhelmingly positive results. The report also offers solutions to inevitable voting machine problems that can disenfranchise voters.

We hope that this report will serve as a resource guide to election officials and concerned citizens alike. Election officials can see what their peers across our country are doing to make elections secure and reliable and to ensure that results accurately reflect the will of the voters. Similarly, citizens can work with election officials to implement the best practices discussed in the report. They can also use the report to identify and help solve problems that might arise this Election Day.

CATEGORIES OF SYSTEM PREPAREDNESS

Verified Voting, the Rutgers Law School Newark Constitutional Litigation Clinic and Common Cause have evaluated the laws, regulations and procedures of all 50 states and the District of Columbia in five key areas to assess states' preparedness for voting system failures:

- **Use of a Voting System with Paper Ballots or a Voter Verifiable Paper Record** Nearly every state in the country counts its votes on some form of electronic voting system. However, 16 states use machines as the standard polling place equipment in some or all counties that neither require the use of voter-marked paper ballots nor produce a voter verifiable paper audit trail (VVPAT). VVPATs are paper records, similar to ATM receipts, printed contemporaneously by a VVPAT-equipped DRE and verifiable by the voter. Such ballots and records serve as an important check to ensure that corrupt software or programming errors do not result in an incorrect machine total, and should be required in every county in every state. Such ballots should be treated as the vote of record in all counts, audits and recounts.
- **Polling Place Contingency Plans** Twenty-three states have at least some counties that use DRE voting machines (whether equipped with VVPATs or not) as their primary voting system on Election Day. If these machines break, or fail to start up, voters may have to wait in long lines while election workers scramble to repair them. Another problem with DRE voting machines is that at peak hours many are needed to accommodate a high level of voter turnout. Shortages of equipment in DRE jurisdictions can easily lead to long lines and disenfranchised voters. The best solution to problems posed by machine failures and shortages in the number of machines is good contingency plans. We have reviewed the contingency plans in the 23 states using DREs as the standard polling place equipment. Machines should be repaired and replaced quickly, and polling places should be required to have enough emergency paper ballots on hand and provide them promptly to voters who are waiting to vote.
- **Paper Ballots for Military and Overseas Voters** The majority of states have moved to require or otherwise use paper ballots and/or DREs equipped with VVPATs in the polling place. This is essential to ensure that polling place voting is independently verifiable. However, at the same time, there has been a push towards allowing Internet, e-mail and facsimile transmission of completed ballots from voters voting under the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA), which is undermining the accuracy, integrity and security of remote voting. Votes transmitted this way in 32 states this year constitute electronic ballots which lose the fundamental property of independent auditability, unlike other forms of remote voting. We note the 19 states which require voters' original ballots to be returned. Of the 32 allowing electronic return, we note the six states which seek to contain the risk by making electronic return of voted ballots available only to a restricted group of voters (e.g. military voters in combat zone). One state, New Jersey, allows electronic return but also requires the return of the hard copy paper

ballot. Finally, we note the 25 states that currently permit electronic return of votes for military and overseas voters without any restrictions.

- **Conduct Post-Election Audit of Paper Ballots and Voter Verifiable Paper Records** It is critical to note that simply using a paper ballot voting system, in and of itself, does not ensure the accuracy and integrity of election results. In order to do that, the voter-marked paper ballots (including all absentee ballots) or voter verifiable paper records must be used to independently audit the vote count. Mandatory comparison of a random sampling of the paper ballots to electronic totals is one of the best ways to ensure that the reported outcomes are accurate. Twenty-two states both have paper based voting systems and conduct such audits; four more require audits but do not use paper based voting systems statewide. We note which states conduct no audits at all, which conduct some audits but could improve, and which are conducting robust statewide audits regularly.
- **Requirements for Sound Ballot Accounting and Reconciliation** Independent audits of electronic tallies using paper ballots or records are necessary to ensure the accuracy and integrity of electronically reported results, and ballot accounting and reconciliation do not and cannot replace this function. However, good ballot accounting and reconciliation practices are required to catch basic errors such as the failure to account for all ballots cast at the polling place or to upload all memory cards, which may result in incorrect totals. We have reviewed the ballot accounting and reconciliation practices in all 50 states and the District of Columbia. Good ballot accounting and reconciliation practices include accounting for all voters and all types of ballots at the polling place, reconciling discrepancies between the number of voters who signed in and the number of ballots cast, reconciling precinct totals to county totals, accounting for and reconciling all memory cards, and making results public. To the extent that tally servers are used, as a security measure that protects the ballot accounting function, no system or device upon which ballots are programmed or votes are cast or tabulated should be connected to the Internet at any time.

The report compares each state's actual practices with best practices — developed in consultation with leading election officials and computer security experts — in each of these areas. There are two types of voting system usage referred to below. One is paper ballots marked by voters (“voter-marked”) either manually or through the use of assistive ballot marking technology, which ballots may be counted by optical or digital scanners or by hand. The other is DRE voting machines equipped with VVPAT printers. The report first discusses whether or not each state requires or otherwise uses voter-marked paper ballots that are either counted by scanners or by hand (designated by “Paper Ballots”), voter verifiable paper audit trails (designated by “VVPAT DRE”), or a combination of both systems (designated by “Combination”). The report then rates each state on a scale — inadequate, needs improvement, generally good, good, or excellent — based on how well their laws and procedures compare to best practices overall in the other categories of preparedness.

CHART OF STATE RANKINGS

State (Electoral College Votes)	Overall Rating	Paper Ballots and Records	Polling Place Contingency Plans	Voted Ballot Return for UOCAVA Voters	Post-Election Audits	Ballot Accounting and Reconciliation
AL (9)	Generally Good	Paper Ballots	N/A	Excellent	Inadequate	Generally Good
AK (3)	Generally Good	Paper Ballots	N/A	Inadequate	Good	Good
AZ (11)	Needs Improvement	Paper Ballots	N/A	Inadequate	Needs Improvement	Generally Good
AR (6)	Needs Improvement	Inadequate	Generally Good	Excellent	Inadequate	Good
CA (55)	Generally Good	Combination	Excellent	Inadequate	Good	Good
CO (9)	Needs Improvement	Inadequate	Needs Improvement	Needs Improvement	Needs Improvement	Generally Good
CT (7)	Generally Good	Paper Ballots	N/A	Excellent	Needs Improvement	Generally Good
DE (3)	Inadequate	Inadequate	Needs Improvement	Inadequate	Inadequate	Generally Good
D.C. (3)	Generally Good	Paper Ballots	N/A	Inadequate	Good	Generally Good
FL (29)*	Generally Good	Paper Ballots	N/A	Inadequate	Needs Improvement	Good
GA (16)	Needs Improvement	Inadequate	Generally Good	Excellent	Inadequate	Generally Good
HI (4)	Generally Good	Paper Ballots	N/A	Needs Improvement	Needs Improvement	Good
ID (4)**	Generally Good	Paper Ballots	N/A	Needs Improvement	Inadequate	Good
IL (20)	Generally Good	Combination	Good	Excellent	Needs Improvement	Generally Good
IN (11)	Needs Improvement	Inadequate	Excellent	Inadequate	Inadequate	Good
IA (6)	Generally Good	Paper Ballots	N/A	Needs Improvement	Inadequate	Excellent
KS (6)	Needs Improvement	Inadequate	Good	Inadequate	Inadequate	Good
KY (8)	Generally Good	Inadequate	Good	Excellent	Needs Improvement	Good
LA (8)	Inadequate	Inadequate	Needs Improvement	Inadequate	Inadequate	Generally Good
ME (4)***	Needs Improvement	Paper Ballots	N/A	Inadequate	Inadequate	Good
MD (10)	Needs Improvement	Inadequate	Generally Good	Excellent	Inadequate	Generally Good
MA (11)	Needs Improvement	Paper Ballots	N/A	Inadequate	Inadequate	Good
MI (16)	Generally Good	Paper Ballots	N/A	Excellent	Inadequate	Generally Good
MN (10)	Good	Paper Ballots	N/A	Excellent	Good	Good
MS (6)	Inadequate	Inadequate	Needs Improvement	Inadequate	Inadequate	Generally Good
MO (10)****	Generally Good	Paper Ballots	N/A	Needs Improvement	Good	Generally Good
MT (3)	Generally Good	Paper Ballots	N/A	Inadequate	Good	Good
NE (5)***	Needs Improvement	Paper Ballots	N/A	Inadequate	Inadequate	Generally Good
NV (6)	Generally Good	VVPAT DRE	Needs Improvement	Inadequate	Generally Good	Good

State (Electoral College Votes)	Overall Rating	Paper Ballots and Records	Polling Place Contingency Plans	Voted Ballot Return for UOCAVA Voters	Post-Election Audits	Ballot Accounting and Reconciliation
NH (4)	Good	Paper Ballots	N/A	Excellent	Inadequate	Excellent
NJ (14)	Needs Improvement	Inadequate	Good	Generally Good	Inadequate	Needs Improvement
NM (5)	Generally Good	Paper Ballots	N/A	Inadequate	Excellent	Generally Good
NY (29)	Good	Paper Ballots	N/A	Excellent	Generally Good	Generally Good
NC (15)	Generally Good	Combination	Generally Good	Inadequate	Good	Good
ND (3)	Generally Good	Paper Ballots	N/A	Inadequate	Inadequate	Excellent
OH (18)	Good	Combination	Excellent	Excellent	Needs Improvement	Generally Good
OK (7)	Needs Improvement	Paper Ballots	N/A	Inadequate	Inadequate	Generally Good
OR (7)	Generally Good	Paper Ballots	N/A	Inadequate	Generally Good	Good
PA (20)	Generally Good	Inadequate	Good	Excellent	Needs Improvement	Generally Good
RI (4)	Needs Improvement	Paper Ballots	N/A	Inadequate	Inadequate	Generally Good
SC (9)	Needs Improvement	Inadequate	Good	Inadequate	Inadequate	Generally Good
SD (3)	Generally Good	Paper Ballots	N/A	Excellent	Inadequate	Needs Improvement
TN (11)	Needs Improvement	Inadequate	Generally Good	Excellent	Inadequate	Generally Good
TX (38)	Needs Improvement	Inadequate	Generally Good	Needs Improvement	Needs Improvement	Generally Good
UT (6)	Needs Improvement	VVPAT DRE	Needs Improvement	Inadequate	Needs Improvement	Needs Improvement
VT (3)	Good	Paper Ballots	N/A	Excellent	Needs Improvement	Excellent
VA (13)	Needs Improvement	Inadequate	Good	Excellent	Inadequate	Generally Good
WA (12)	Generally Good	Paper Ballots	N/A	Inadequate	Needs Improvement	Good
WV (5)	Generally Good	Combination	Needs Improvement	Inadequate	Good	Generally Good
WI (10)****	Good	Paper Ballots	N/A	Excellent	Generally Good	Generally Good
WY (3)****	Generally Good	Paper Ballots	N/A	Excellent	Inadequate	Good

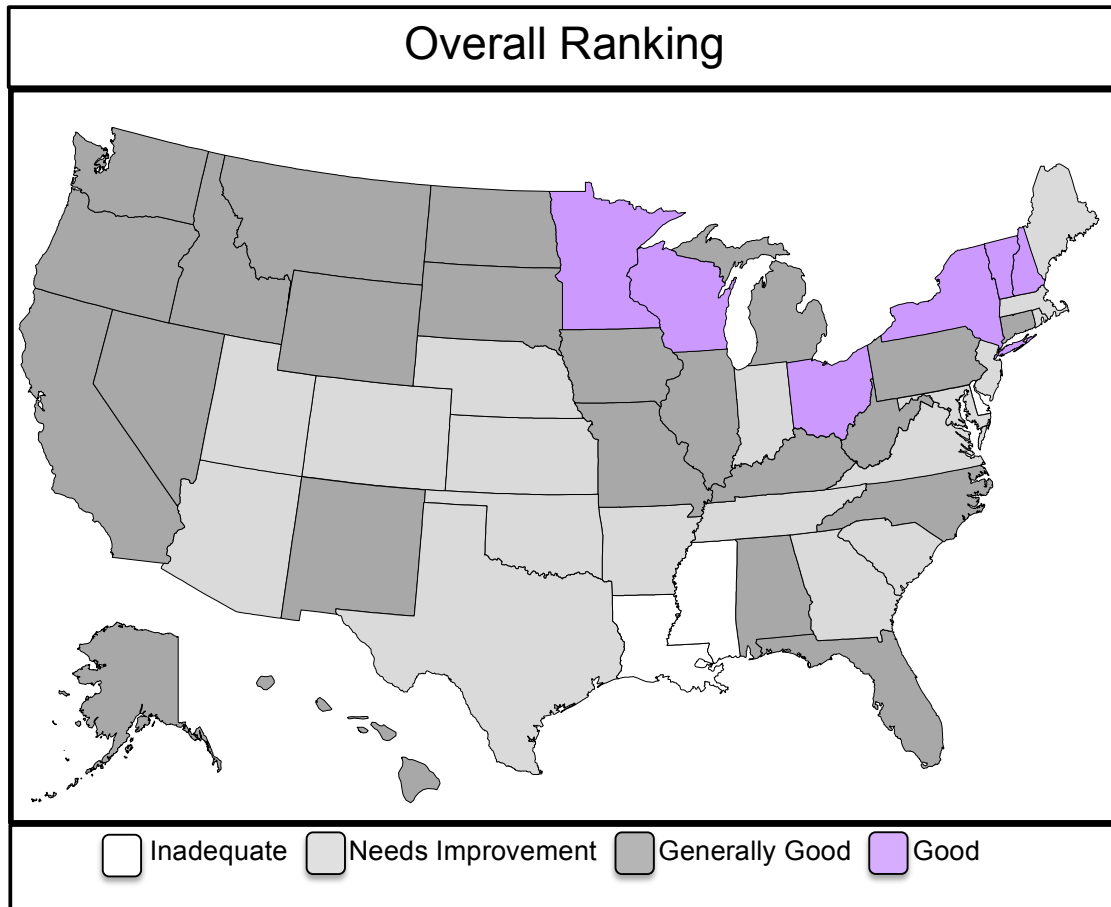
* Paperless DREs are only used for disability access in Florida, and are still used in 64 of 67 counties

** Idaho also uses punch cards in four counties

*** Electoral College Votes may be split in Maine and Nebraska

**** St. Louis City, St. Louis County and Boone County, MO use both DREs and paper ballots in many or a majority of precincts; 5 cities or towns in Wisconsin use DREs but make paper ballots available also; one county in Wyoming uses DREs.

Overall Voting System Preparedness: The Best Prepared and the Least Prepared



SUMMARY OF BEST PRACTICES, AND STATE RATINGS

We strongly encourage all 50 states to adopt all of the best practices detailed in this report. Our elections are the essence of our democratic system of government, and we cannot risk irregularities that shake the confidence of the American public. Some of these recommendations cannot be implemented in time for this November's elections without, essentially, emergency executive authorization, and significant commitment and resources.

Nevertheless, in the months before the election there is still time for states to take several crucial measures to ensure that they are prepared for the possibility of voting system failure:

- In precincts that use DRE voting machines, officials can ensure that there are adequate emergency paper ballots available on Election Day in the event of machine failures or long lines caused by poor machine allocation.
- Authorities can make sure that at the close of polls on election night, all polling places and county offices comply with the best practice Ballot Accounting and Reconciliation checklist set forth in this report on pages 133-134 to ensure that a ballot accounting and reconciliation or poll worker error did not leave some votes uncounted or mis-tallied.
- After the election and before final certification, election officials can conduct audits of election results, to provide evidence that the unofficial outcomes electronically reported by the voting machines are accurate and were not compromised by a software error or malfunction.

Below is a summary of best practices in each of the five categories we have reviewed, as well as an analysis of how closely states adhere to these best practices.

Summary of Best Practices on Paper Ballots and Voter Verifiable Paper Records

There is widespread agreement among computer security experts that some form of independent voter-verifiable record is critical for voting system security, and as a check against potential electronic miscounts.²⁷ Currently, except for the handful of jurisdictions still using punch cards, there are only two forms of these records. One is paper ballots, which are filled out by the voter ("voter-marked") and may read by a scanner or counted by hand, and the other is "voter verifiable paper audit trails" (VVPATs) which are printed contemporaneously by DRE (also referred to as touch-screen) voting machines. Sighted voters who use DRE voting machines that print VVPATs have the opportunity to review a paper record of their vote before casting it. However, with respect to visually impaired voters, it must be noted that VVPAT printers do not currently include optical character recognition (OCR) readouts or other means of non-visual verification of the information printed on the VVPAT. The only way a visually impaired voter can currently verify a paper copy of the ballot through the use of technology, which allows such a voter to vote privately and independently, is by using an accessible ballot marking device to mark the ballot that also enables audio read-back of the voter's choices from the printed or marked ballot.

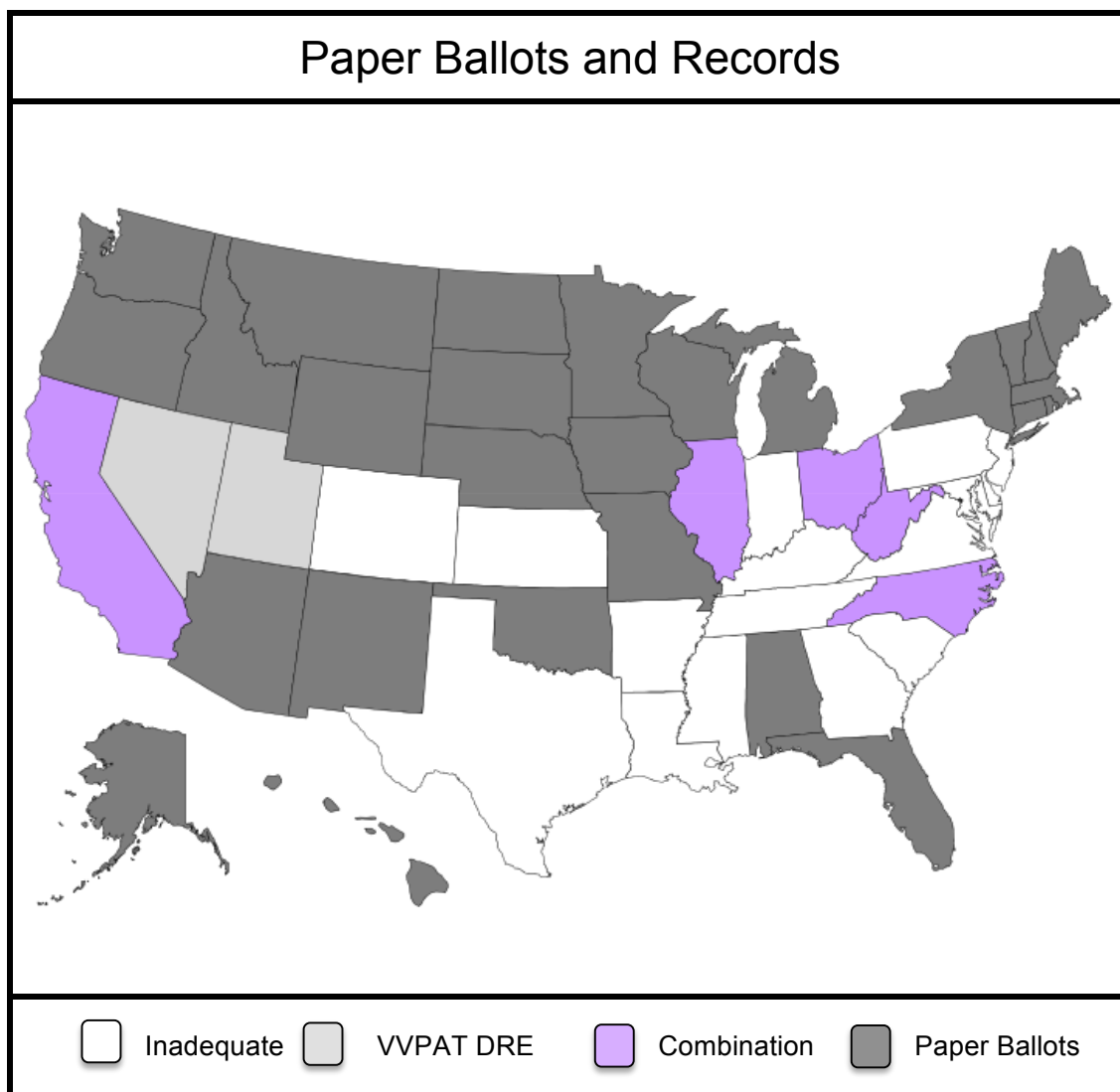
The authors believe that paper ballots and optical scan systems, accompanied by accessible ballot marking devices, should replace DREs (with or without VVPAT printers). All three organizations also agree that if and to the extent that DRE systems remain in use, they should not be used without (1) a VVPAT printer; (2) guidance to ensure that voters check the paper records for accuracy when voting; and (3) sufficient emergency paper ballots on hand in case of machine failures or malfunctions. Voter-marked paper ballots and VVPATs should be treated as the vote of record in all counts, audits and recounts. If and to the extent that the paper ballots or records are lost, damaged or otherwise compromised, that must be addressed. For example, if the number of compromised paper ballots or records exceeds the margin of victory, a new election should be held.

While there are legal requirements that voting machines be accessible to the disabled and that bilingual ballots be provided in certain jurisdictions, reports from past elections that voting systems equipped with accessible interfaces are sometimes not deployed or are deployed incorrectly in polling places are very troubling. This report does not address these specific issues. However, the authors strongly support ensuring that accessible systems are fully deployed and operational in all polling places, as well as continued improvements in accessible and auditable voting systems, with a strong focus on usability and universal design (referring to the extension of standard design principles to include people of all ages and abilities, to reduce fatigue, increase speed, decrease errors, and decrease learning time for all users). Current paper ballot systems, accompanied by accessible ballot marking devices, however, present advantages over DRE systems in key areas which can increase the resilience of our voting systems.

Forty-three states use paper ballots and optical scan systems as the standard polling place equipment in some or all counties. Eighteen states use VVPAT-equipped DREs as the standard or accessible polling place equipment in some or all counties.

State Ratings on Paper Ballots and Voter-Verifiable Paper Records

For states that use some form of paper ballot or VVPAT voting system statewide, we indicate below which states use which system. States that do not mandate paper ballots or paper records statewide are rated **inadequate**. Sixteen states do not mandate paper ballots or any sort of paper records as a part of their standard polling place voting systems, and were therefore rated “inadequate.” Of those states, however, only six (Delaware, Georgia, Louisiana, Maryland, New Jersey, and South Carolina) currently use paperless voting systems statewide.



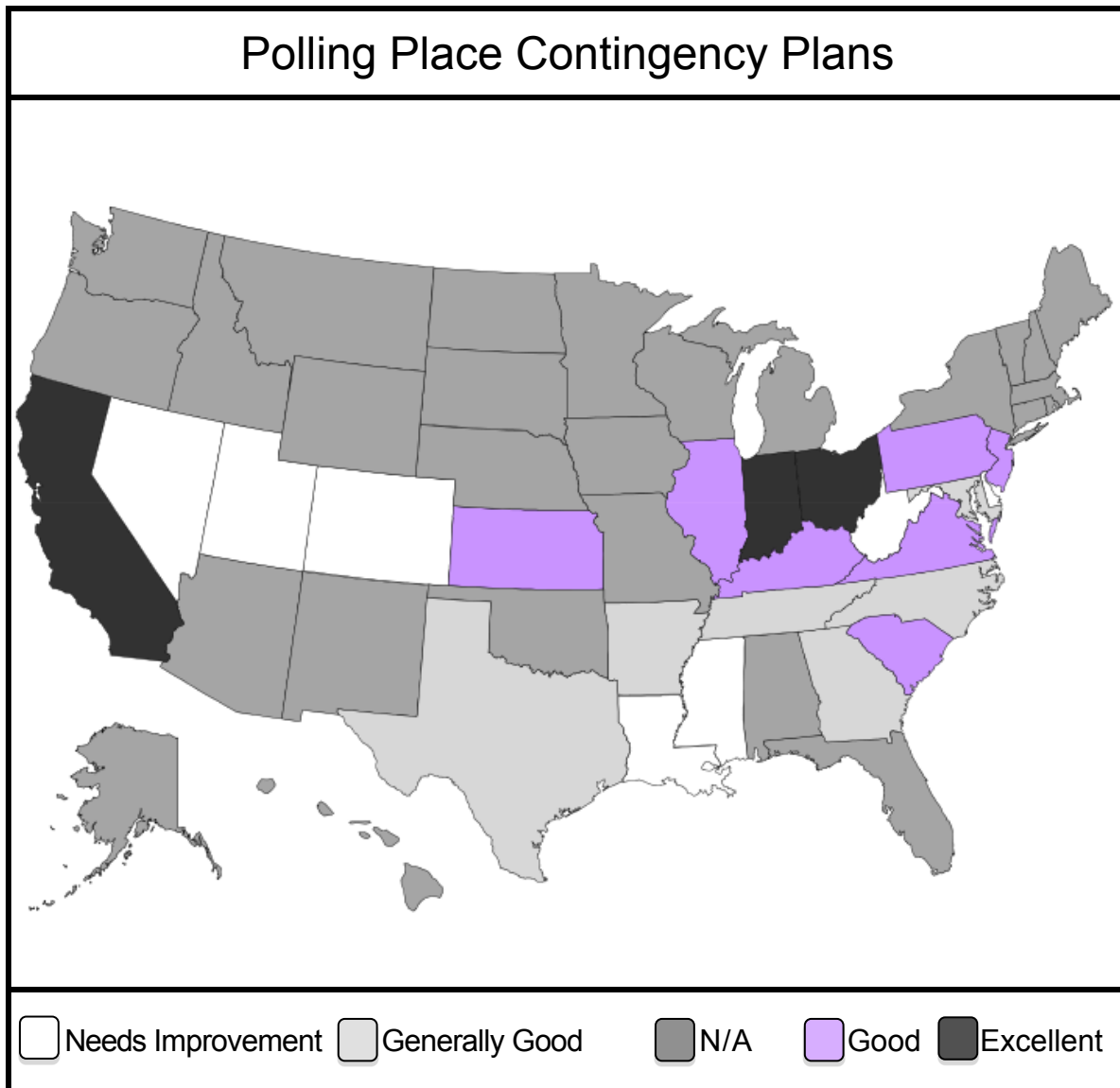
A more detailed explanation of state ratings in this category can be found on pages 19 –24 of this report, followed by a description of state practices in detail.

Summary of Best Practices for Polling Place Contingency Plans: Repair of Machines and Emergency Paper Ballots

States that use DRE voting machines (whether or not equipped with VVPATs) as a primary voting system on Election Day should: (1) require immediate repair or replacement of machines in the event of machine failure; (2) require emergency paper ballots to be available at the polling place; (3) require emergency ballots to be distributed in the event that *any* voting machine fails, or (4) in the event of long lines resulting from either machine failure or an insufficient allocation of machines in the precinct to serve the volume of voters expeditiously; and (5) in developing procedures for emergency paper ballots, states should also require that emergency paper ballots be treated as regular ballots (rather than absentee or provisional ballots, which are subject to scrutiny before being counted).

State ratings on Polling Place Contingency Plans

Of the 23 states that use DRE voting machines as a primary voting system in at least some precincts, only California, Indiana and Ohio have state-mandated requirements which satisfy most or all of the five best practices listed above, and were therefore rated **excellent**. The remaining states using DREs were rated **needs improvement**, **generally good**, or **good**, based on whether they required two, three, or four of the best practices, as more fully explained in Section II of the report. All states required more than one of the best practices, so no states were rated **inadequate**. Colorado, Delaware, Georgia, Louisiana, Nevada, Texas, Utah, Virginia, and West Virginia have no state-mandated requirement for emergency paper ballots to be available in precincts that use DRE voting machines.



A more detailed explanation of state ratings in this category can be found on pages 27-33 of this report, followed by a description of state practices in detail.

Summary of Best Practices for Returning Voted Military and Overseas Ballots

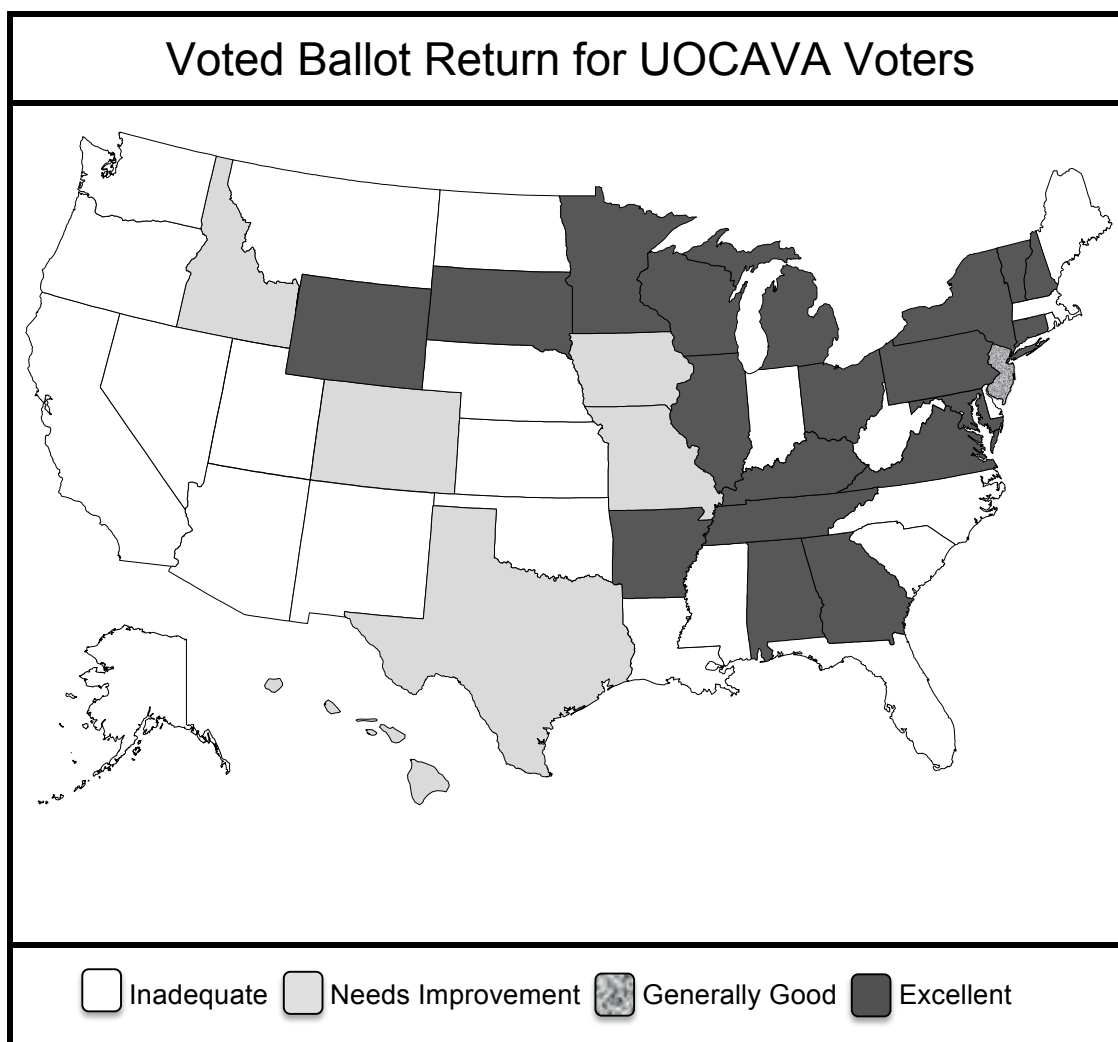
Paper Ballot Required; Online Voting Not Allowed This best practice prevents most kinds of privacy and security risks to which electronic ballots are subject, and provides an auditable ballot. The authors support this best practice and encourage its use, along with expedited return services, to help ensure timely delivery of the voted ballot to election officials.

Online Voting Allowed for Some UOCAVA Voters, with Restrictions Limiting the use of online return of voted ballots recognizes that there are security and privacy risks inherent in electronic ballots. Allowing electronic return but also requiring return of the hard copy paper ballot, as is required in New Jersey, constitutes an even better best practice in this category.

Online Voting Allowed for All UOCAVA Voters As of this report, there are no indications that permission to electronically return voted ballots in Federal, state legislative or statewide elections has been extended to voters not covered by UOCAVA with the following exceptions: Alaska, Louisiana, and Nevada (with restrictions) permit any absentee voter to return a ballot by facsimile; Washington State will allow any service member, including non-active reservists, to return ballots by email and facsimile.

State Ratings on Voted Ballot Return Practices for Military and Overseas Ballots

Nineteen states explicitly require the return of the physical ballot that was marked and verified by the voter. These states received the highest rating, **excellent**. Six states permit electronic return by fax, e-mail, Web portal or a combination thereof for UOCAVA voters under certain specified restrictions, e.g., only for military personnel deployed in a combat zone, and received a rating of **needs improvement**. One state allows electronic return by fax or email but requires the hard copy ballot to follow, and received a rating of **generally good**. Twenty-five allow electronic return by fax, e-mail, Web portal or combination thereof for all UOCAVA voters; these states receive an **inadequate**.



A more detailed explanation of state ratings in this category can be found on pages 81-87 of this report, followed by a description of state practices in detail.

Summary of Best Practices for Post-Election Audits of Paper Ballots and Voter Verifiable Paper Records

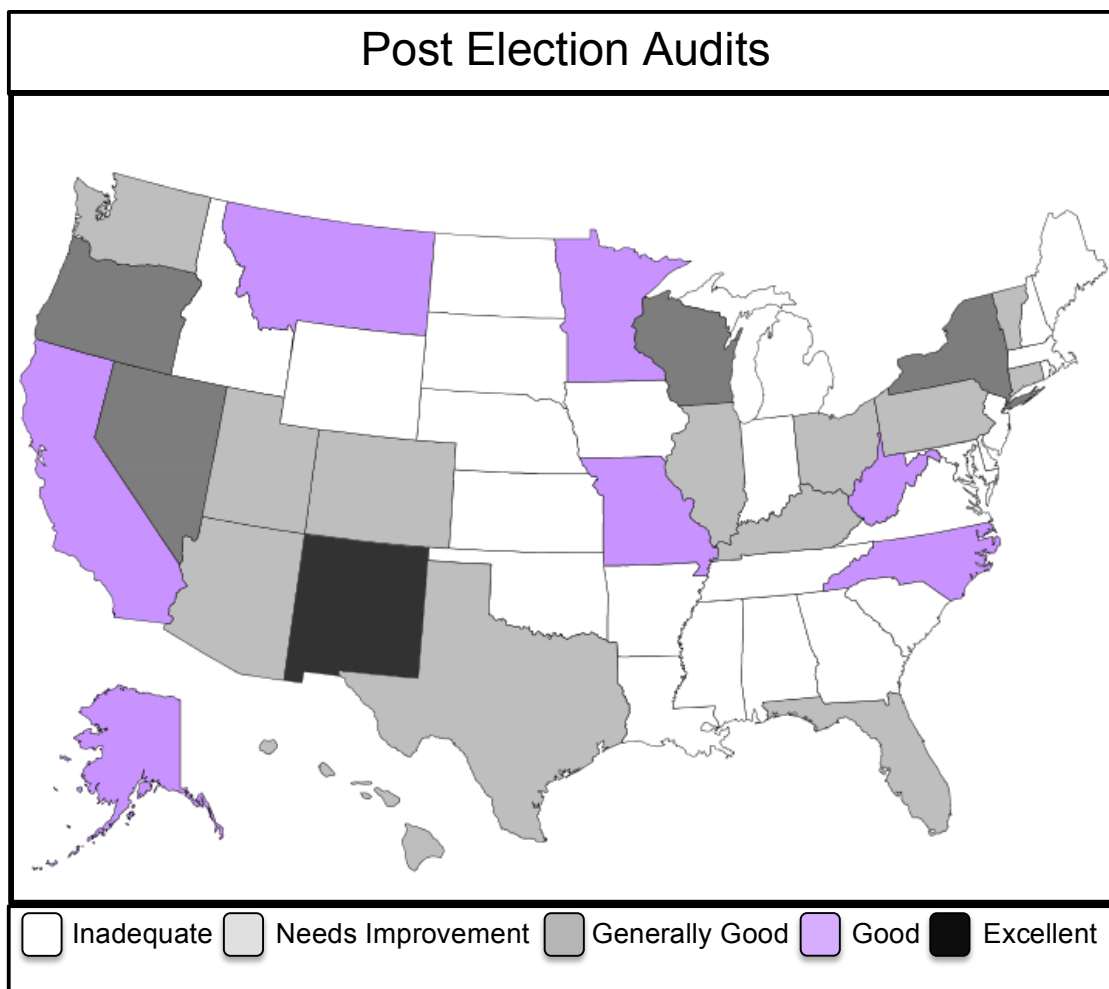
In the last several years, most of the public debate on electronic voting has concerned whether in-precinct voting machines should require the use of paper ballots or at least produce a voter-verifiable paper record. As detailed above, in much of the country, that debate is over. Thirty-five states currently have either voter-marked paper ballots, or have added voter-verifiable paper record printers to their standard polling place voting machines statewide.²⁸ Another three states (Maryland, New Jersey and Tennessee) have passed but not implemented laws to require voter-marked paper ballots or voter-verifiable paper records. Three states — Arkansas, Colorado and Mississippi — use paper ballots in most counties. Florida has paper ballots and optical scan systems in all counties, along with paperless DREs for disability access, and is required to eliminate paperless systems altogether by 2016.

Unfortunately, the widespread adoption of paper ballot voting systems and voter-verifiable paper records does not mean jurisdictions will catch software problems that can cause lost or mis-tallied votes. On the contrary, as the Brennan Center noted in its June 2006 comprehensive study of electronic voting system security *The Machinery of Democracy: Protecting Elections in an Electronic World*,²⁹ voter-verifiable paper records by themselves are “of questionable security value.” Paper ballots and records will not prevent programming errors, software bugs or the introduction of malicious software into voting systems. If paper is to maximize the security and reliability of voting systems, it must be used to check, or “audit,” the voting system’s electronic records.

State Ratings on Post-Election Audits

States that conducted audits received points for conducting audits that are (1) **robust** (examining more than just one or two contests) (2) **comprehensive** (auditing all types of systems/ballots, including military and overseas ballots), (3) **timely** (selection starts after initial count is published, and is completed before results are finalized), and (4) **transparent and random** (there is an observably random selection of units to be audited, and the audit count itself is transparent). States were also given credit for statutory provisions that **trigger expansion** of the audit if unexplained discrepancies are found.

To achieve an **excellent** grade a state would have to require all of the foregoing, plus use risk-limiting or statistical audits. One state – New Mexico – received an “excellent” rating. Eight states — Alaska, California, Minnesota, and West Virginia received **good** ratings for the way they conduct audits. Seventeen states were rated **needs improvement** or **generally good**. Twenty-five of the states in the country do not perform audits — they received an **inadequate** rating.



A more detailed explanation of state ratings in this category can be found on pages 112-116 of this report, followed by a description of state practices in detail.

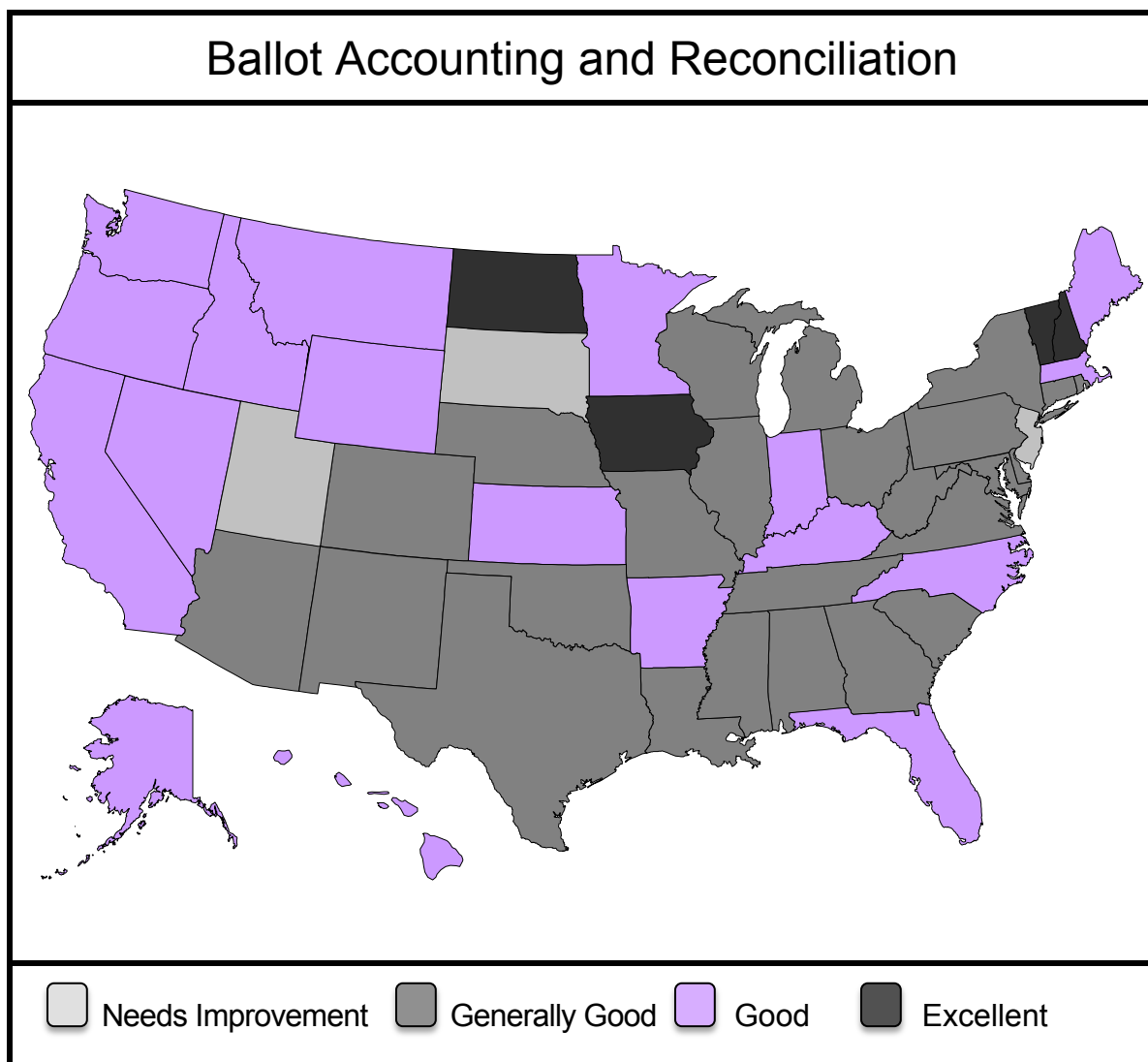
Summary of Best Practices for Ballot Accounting and Reconciliation

Paper ballots or records for every vote cast, accompanied by routine audits, are necessary to confirm whether or not electronic vote tallies accurately reflect the will of the voters. However, rigorous ballot accounting is required to help to ensure the accuracy and integrity of the result and that votes are neither lost nor counted more than once. There are five primary practices that help ensure that all ballots are accounted for after the polls have closed: (1) accounting for all ballots, votes and voters at the polling place (including counting and recording the total number of votes cast); (2) reconciling vote and ballot totals at the polling place (including checking the number of votes recorded against the number of voters who have signed the polling books); (3) reconciling precinct totals with county totals and (4) accounting for and reconciling all memory cards at the county level; and (5) making all results public, so that candidates and members of the public can double-check all totals. A detailed checklist of these steps can be found on pages 133-134. To the extent that tally servers are used, as a security measure that protects the ballot accounting function, no

system or device upon which ballots are programmed or votes are cast or tabulated should be connected to the Internet at any time.

State Ratings on Requirements for Ballot Accounting and Reconciliation

While all states perform some form of ballot accounting and reconciliation, four states (Iowa, New Hampshire, North Dakota and Vermont) require most or all of the best practices and were therefore rated **excellent**. Three states (New Jersey, South Dakota and Utah) have requirements that fall far short of our recommended best practices, and are therefore rated **needs improvement**. The remainder required several of the best practices, and were either rated **generally good** or **good**, as described more fully in Section V of the report. No states required only one of the best practices, so none were rated **inadequate**.



A more detailed explanation of state ratings in this category can be found on pages 130-137 of this report, followed by a description of state practices in detail.

SCOPE OF ANALYSIS

This report reviews and ranks state laws and procedures that jurisdictions are required to follow in the event of *voting system failures*. We do not examine how states have prepared to deal with other election administration issues that could cause serious problems on Election Day, such as problems with the voter registration rolls, ballot design, voter ID requirements, deceptive practices, caging and voter challenges, or the use and counting of provisional ballots. Both the Brennan Center and Common Cause have previously published separate reports related to these other issues.³⁰

Nor do we examine the critical steps that jurisdictions should take to *avoid* voting system failures, including ensuring that there has been rigorous certification and acceptance testing of all machines, and that each machine receives a thorough “logic and accuracy test” before voting begins. Pre-election logic and accuracy testing is critical to minimizing voting system failures on Election Day. Such tests help jurisdictions ensure that their machines are functioning properly, and record all votes, before they are deployed in the polling place. Professor Douglas Jones and John Washburn, among others, have provided guidance for jurisdictions on how to conduct logic and accuracy testing.³¹ The Elections Assistance Commission also recently made grant funds available to several states to improve such testing.³² Unfortunately, even with the best logic and accuracy testing, system failures sometimes happen. This report only addresses the steps that jurisdictions should take to make sure such failures do not disenfranchise voters or result in lost votes.

This report’s analysis is limited by what jurisdictions *report* their procedures to be, through laws, regulations and directives, and interviews with election officials in each state. Having good policies in place is of little value unless they are executed successfully. For instance, the fact that a state requires emergency paper ballots to be distributed to every polling place does not mean that such ballots will actually be distributed, or that poll workers will make them available to voters when appropriate. The analysis that follows *assumes* that jurisdictions will carry out their policies as written (and we note that some local jurisdictions go above and beyond in their efforts), and evaluates the likelihood that jurisdictions will successfully navigate a voting system meltdown based on that assumption.

Finally, and related to the previous point, there are many items that we were not able to evaluate that will be critical to handling election system failures. Most are related to staffing: whether jurisdictions have well-trained poll workers, available technical staff, and sufficient election office staff. We recognize these may be significant challenges at a time when budget cutbacks and constraints negatively impact nearly all election jurisdictions.

FIVE CATEGORIES OF PREPAREDNESS FOR ELECTION SYSTEM PROBLEMS

I. PAPER BALLOTS AND VOTER-VERIFIABLE PAPER RECORDS

The most important aspect of a voting system, with respect to accuracy, integrity and security, is whether or not it is independently auditable. That is, the very prerequisite to accuracy, integrity and security in today's voting technology is that there be a voter-marked paper ballot, or at least a voter-verifiable paper audit trail (VVPAT), for every vote cast. This ensures that election officials will have something they can use to confirm whether or not the electronic tallies produced by the voting system accurately reflected the intention of the voters.

The critical need for paper ballots for every vote cast has been demonstrated compellingly ever since states began to deploy paperless voting systems. One such state to do that early on a state-wide basis was Georgia. Georgia deployed paperless DREs even in advance of the enactment of federal legislation that authorized almost \$4 billion in funding for voting system modernization nationally,³³ but immediately questions arose about the integrity of the systems and such questions persist to today. As noted above, during the June 2011 Democratic primary election in Cumberland County, New Jersey, conducted on paperless DREs, a DREs used in one district attributed votes to the wrong candidates declaring the losers as victors.³⁴ The county and the Attorney General's Office acknowledged that the voting machine used in the election switched votes and that it had been programmed incorrectly, and a new election was held pursuant to a court order.³⁵ That was necessary because there were no voter-marked paper ballots available for the votes the machine reversed, and therefore there was no way to independently confirm the intention of the voters who voted on it.

Similarly, in November 2004 in Carteret County, North Carolina, a memory limitation on the county's touch screen voting machine lost 4,500 votes.³⁶ Because the machines did not use voter-marked paper ballots or produce a VVPAT, it was impossible to determine how those lost votes should have been counted. North Carolina subsequently deployed paper ballot optical scan and VVPAT-equipped DRE voting machines statewide.³⁷ By contrast, in the 2008 primary election in Washington D.C., thousands of "phantom" write-in votes were added to the vote totals, due to a defective memory cartridge; because D.C. was using paper ballots and optical scanners by then, the correct results were readily able to be determined.³⁸

In response to the concern that software errors in voting machines could result in inaccurate readings of votes, or votes being lost entirely, the Technical Guidelines Development Committee of the Election Assistance Commission recommended new standards (although this proposal has not yet been adopted) for future voting systems that would require voting systems to produce a voter-verifiable voting record that is *independent* of the software.³⁹ That is, when there are no voter marked paper ballots or voter verifiable paper records of the vote, systems are considered "software dependent" and therefore not independently auditable. Systems that are "software *independent*" require the use of or produce voter marked paper ballots or voter verified paper records and can therefore be audited.

Currently, aside from the handful of jurisdictions that still use punch cards, there are only two forms of these independent records. One is paper ballots, which are filled out by the voter (“voter-marked”) either manually or through the use of an assistive interface known as a ballot marking device, and can be tallied by a scanner or counted by hand. The other is VVPATs, which are contemporaneously printed by DRE voting machines. Sighted voters who use DRE voting machines with paper trails have the opportunity to review a paper record of their vote before casting it.⁴⁰

All three organizations involved in writing this report support the use of voter-marked paper ballots, which are made accessible through the use of ballot marking devices; there are currently no VVPATs that are accessible to the visually impaired, and the authors have other concerns about them set forth below. Voter-marked paper ballots and VVPATs should be treated as the vote of record in all counts, audits and recounts. If and to the extent that the paper ballots or records are lost, damaged or otherwise compromised, that must be addressed. For example, if the number of compromised paper ballots or records exceeds the margin of victory, a new election should be held.

Paper ballots with ballot marking devices for accessibility offer superior records for the following reasons:

Paper ballots are superior to VVPATs as audit and recount records While no voting system is perfect, the authors believe that paper ballots and optical scan systems, used with an accessible ballot-marking system, offer significant advantages over VVPAT-equipped DRE systems. Optical scanners are more reliable and auditable, and are easier for poll workers and for voters who do not need assistance to mark a paper ballot to use. Most importantly, when a voter marks his or her own ballot, it is automatically a “voter-verified” record of the vote. In contrast, if the DRE prints a VVPAT, it only becomes “voter verified” if the voter bothers to check it or, as would not be the case for a visually impaired voter, is even able to check it. The only way a visually-impaired voter can currently verify a paper copy of the ballot through the use of technology, which allows the voter to vote independently, is by using an accessible ballot marking device to mark the ballot that also enables audio read-back of the voter’s choices from the printed or marked ballot.

VVPATs are very small, are viewable through a small window on the voting machine, and the font in which they are printed is also very small. This makes them much harder to read than a full size ballot, decreasing the likelihood that all voters will confirm them. That compromises the value of VVPATs as audit records as compared to voter-marked paper ballots. In addition, paper ballots must be sturdy enough to be fed through a scanner and are therefore generally more durable than, for example, standard copier paper. That makes them easy to handle and unlikely to be damaged during even multiple hand-counted audits and recounts. In contrast, the VVPATs currently in use are less durable than standard copier paper, more fragile, subject to loss of data if exposed to heat, and more difficult to handle during a hand-count audit, because they are generally printed on thin paper similar to that used to print receipts from ATMs or cash registers. This further compromises their value as audit records as compared to voter-marked paper ballots.

Optical scan systems do not present the disenfranchisement risk DREs present in the event of machine failure

When optical scanners are used in the precinct as the standard polling place equipment, voters who do not need assistance to mark a paper ballot can continue voting uninterrupted regardless of machine failure. Although any over-vote notification feature provided by the scanner would not be available, and over-vote notification is a requirement if the Help America Vote Act, such voters can still mark their ballots without waiting and deposit them in an auxiliary bin. The ballots can be counted later by machine or by hand. The failure of the optical scanner itself also would not impact voters who do need assistance because they would be voting on a DRE or ballot marking device. In contrast, when VVPAT-equipped DREs are used, when the DRE fails, both the DRE and its VVPAT printer are useless. Voting by those who do not need assistance cannot continue unless and until emergency paper ballots are deployed. With respect to voters who do need assistance to mark a ballot, the failure of the accessible voting equipment (whether DRE or ballot marking device) would result in a violation of the right to vote privately and independently under the Help America Vote Act, and those voters also would not be able to continue voting unless and until paper ballots and assistance in marking them are provided.

Many DREs are required to serve the same number of voters that can be served by just one optical scanner

With respect to voters who can mark their ballots without assistance, generally, only one optical scanner is needed to process thousands of voters. This is because those voters mark their ballots at ballot marking tables, and only occupy the scanner for the one or two seconds it takes to feed the ballot into it. In contrast, one DRE or ballot marking device can only efficiently handle about 200 voters before lines form.⁴¹ This is because voters (whether they require the machine for access or are using it as the standard polling place equipment) occupy the DRE or ballot marking device for the entire time it takes to cast the ballot. That is, they are registering their choices on the machine itself, like a bank ATM. The cost of providing one accessible piece of voting equipment per precinct, as required by law, is essentially the same for optical scan and DRE precincts.

VVPATs are not accessible audit records, while paper ballots marked by accessible ballot marking devices are

With a VVPAT-equipped DRE, only the DRE itself is accessible to disabled voters. Currently used VVPAT systems do not provide audio-read-back of the printed record for voters with limited or no vision. The only way a voter who needs assistance can currently verify a paper copy of the ballot through the use of technology, which allows the voter to vote independently, is by using an accessible ballot marking device to mark the ballot that also enables audio read-back of the voter's choices from the printed or marked ballot.

For all of these reasons, the authors believe that paper ballots and optical scan systems, accompanied by accessible ballot marking devices, should replace DREs (with or without VVPAT printers). All three organizations also agree that if and to the extent that DRE systems remain in use, they should not be used without (1) a VVPAT printer; (2) guidance to ensure that voters check the paper records for accuracy when voting; and (3) sufficient emergency paper ballots on hand in case of machine failures or malfunctions.

Sixteen states use DRE voting machines without a voter-verifiable paper record as the standard polling place equipment in some or all counties.⁴² In these states, there is a risk that vote totals could be corrupted or lost, disenfranchising voters.

RATING THE STATES

We note below whether or not each state requires or otherwise uses voter-marked paper ballots that are either counted by scanners or by hand (designated by “Paper Ballots”), voter verifiable paper audit trails (designated by “VVPAT DRE”), or a combination of both systems (designated by “Combination”). States use paperless systems statewide or that use paper ballots or VVPAT systems in only some counties were rated **inadequate**. We have noted how many counties are still paperless out of the total through the use of a fraction (for example, “2/10” would mean the state has two paperless counties out of a total of ten counties). The section on state practices in detail describes states that are rated inadequate as of November 2012 but that may take steps to implement voter-verifiable paper records after 2012.

[illegible]

☐ Inadequate ☐ VVPAT DRE ☒ Combination ☐ Paper Ballots

Paper Ballots or Voter-Verifiable Paper Records

Alabama	Paper Ballots
Alaska	Paper Ballots
Arizona	Paper Ballots
Arkansas	Inadequate (3/75)
California	Combination
Colorado	Inadequate (1/64)
Connecticut	Paper Ballots
Delaware	Inadequate (3/3)
D.C.	Paper Ballots
Florida*	Paper Ballots
Georgia	Inadequate (159/159)
Hawaii	Paper Ballots
Idaho**	Paper Ballots
Illinois	Combination
Indiana	Inadequate (58/92)
Iowa	Paper Ballots
Kansas	Inadequate (19/105)
Kentucky	Inadequate (44/120)
Louisiana	Inadequate (64/64)
Maine	Paper Ballots
Maryland	Inadequate (24/24)
Massachusetts	Paper Ballots
Michigan	Paper Ballots
Minnesota	Paper Ballots
Mississippi	Inadequate (3/82)
Missouri***	Paper Ballots

Montana	Paper Ballots
Nebraska	Paper Ballots
Nevada	VVPAT DRE
New Hampshire	Paper Ballots
New Jersey	Inadequate (21/21)
New Mexico	Paper Ballots
New York	Paper Ballots
North Carolina	Combination
North Dakota	Paper Ballots
Ohio	Combination
Oklahoma	Paper Ballots
Oregon****	Paper Ballots
Pennsylvania	Inadequate (49/67)
Rhode Island	Paper Ballots
South Carolina	Inadequate (46/46)
South Dakota	Paper Ballots
Tennessee	Inadequate (93/95)
Texas	Inadequate (85/254)
Utah	VVPAT DRE
Vermont	Paper Ballots
Virginia	Inadequate (68/95)
Washington****	Paper Ballots
West Virginia	Combination
Wisconsin***	Paper Ballots
Wyoming***	Paper Ballots

* Paperless DREs are only used for disability access in Florida, and are still used in 64 of 67 counties

** Idaho also uses punch cards in four counties

*** St. Louis City, St. Louis County and Boone County, MO use both DREs and paper ballots in many or a majority of precincts; 5 cities or towns in Wisconsin use DREs but make paper ballots available also; one county in Wyoming uses DREs.

**** Oregon and Washington vote by mail

STATE PRACTICES IN DETAIL

Arkansas

Arkansas law requires all voting systems to produce a voter-verifiable paper record, except those systems currently deployed in Union, Columbia and Ouachita counties.⁴³ At the time the legislation passed, those three counties deployed the Shouptronic 1242 DRE push-button machine manufactured by Danaher Controls, which could not be retrofitted with paper records; therefore, those counties were exempt from the paper record requirement.⁴⁴ The law requires any voting systems purchased on or after August 12, 2005 to be able to produce a voter-verifiable paper audit trail.⁴⁵

Colorado

Colorado law required all voting systems to produce voter-verifiable paper records by January 2010; any county not having complied by January 1, 2009 must comply by January 1, 2014.⁴⁶ Two counties, Jefferson and Arapahoe, still deploy paperless DREs.⁴⁷ Colorado law prohibits the purchase of any new voting systems unless they produce a voter-verifiable paper record.⁴⁸

Florida

Florida enacted a law in 2007 requiring all counties to have as their primary voting system a paper ballot optical scan system.⁴⁹ Originally, counties were also allowed to use a paperless DRE for disabled voters in each polling place until 2012, but in 2010 that deadline for replacement of paperless accessible systems was changed to 2016.⁵⁰ As of January 2012, only eight counties had replaced their paperless DREs with ballot marking devices for disability access.⁵¹

Maryland

Maryland's law requiring that its paperless DRE systems be replaced with optical scan systems by 2010⁵² has not been implemented due to budgetary constraints.⁵³ Therefore, no action has been taken to implement Maryland's voter verifiable paper record requirement, and Maryland "will continue to use the DRE voting system for 2012."⁵⁴

New Jersey

In 2005, New Jersey enacted a law requiring all voting systems to produce a voter-verifiable paper record by January 1, 2008, unless a waiver was granted by the attorney general.⁵⁵ The implementation deadline was extended twice,⁵⁶ then suspended indefinitely through the enactment of a provision making implementation contingent upon funding.⁵⁷ The Rutgers Law School Constitutional Litigation Clinic, through litigation first filed in 2004 before the paper record law was enacted, continues to seek judicial action to require implementation of the law or a prohibition on the use of paperless DREs in New Jersey.⁵⁸ The Secretary of State's office reported that the paper record requirement "is still suspended until there is federal funding."⁵⁹

Tennessee

The Tennessee Voter Confidence Act (TVCA) required each county to deploy a precinct count optical scan system on or before 2010.⁶⁰ Implementation of the legislation has been delayed until “on or before the November 2014 general election.”⁶¹ In addition, there have been attempts to repeal the TVCA.⁶²

II. POLLING PLACE CONTINGENCY PLANS: REPAIR OF MACHINES AND EMERGENCY PAPER BALLOTS

DRE voting machines — as opposed to paper ballots and optical scan systems — are the primary voting system in all or some precincts in 23 states.⁶³ When an optical scanner malfunctions, voters who do not need assistance to mark a paper ballot are not disenfranchised. Although any over-vote notification feature provided by the scanner would not be available, and over-vote notification is a requirement of the Help America Vote Act, such voters can still mark their paper ballots without waiting and deposit them in the scanner's auxiliary bin. Those ballots can either be scanned or hand counted later. Those voters would not have had to wait for a machine repair in order to continue voting. In addition, one optical scan machine can easily process the ballots of thousands of such voters, therefore, long lines will not be caused by a shortage of equipment. As noted above, the failure of an optical scanner also would not disenfranchise voters who do need assistance to mark a paper ballot, because they would be voting on a DRE or ballot marking device.

The opposite is true where DREs are used, whether or not they are equipped with VVPAT printers and whether or not they are used only for accessibility. When a DRE malfunctions, both the voting machine and the printer become unavailable. Voters who do not need assistance to mark a paper ballot will be disenfranchised if they are required to wait longer than they can (due to work, child care or other obligations) to be given an emergency paper ballot or for the machine to be repaired. If a DRE or ballot marking device fails, voters who do need assistance to vote will be denied their right to vote privately and independently, and may also be disenfranchised if not promptly provided with a ballot and assistance in marking it. In other words, the failure of optical scanners generally disenfranchises no voters, while the failure of DREs may disenfranchise all voters.

In addition, in order to process voters efficiently and as noted above, ideally one DRE voting machine or ballot marking device should be provided for approximately every 200 voters. Thus, equipment failures and shortages can easily result in long lines when DREs are used as the standard polling place equipment. Because voting machines sometimes break or malfunction, or turnout may be greater than can efficiently be handled by the amount of equipment deployed, it is critical for counties using DRE machines as the standard polling place equipment to have backup plans in the case of such failures or equipment shortages so voting can continue uninterrupted. Thus, paper ballots are, first of all, a critical prerequisite to ensuring that the vote count is accurate. Secondly, they are a critical prerequisite to ensuring that voters can vote at all if DRE voting systems fail or turnout is too great to be processed efficiently by the number of machines provided.

Although procedures and practices with respect to the repair and replacement of machines and the deployment of emergency ballots where DREs are used would apply to both the standard polling place equipment and equipment used for disability access, we did not grade states with respect to contingency planning in the event of the failure of a DRE or ballot marking device used for exclusively for accessibility. In the event of the failure of an accessible voting machine, disabled voters are entitled to vote with assistance and providing such assistance would be required. Still, it is vital to note that the failure of a DRE or ballot marking device used for disability access would result in a Help America Vote Act violation

by making private and independent voting impossible for voters who need assistance. In addition, if such voters are not provided with a ballot and assistance in marking it, they will be disenfranchised. The functioning of systems for all voters is crucial, and we note that other organizations, such as the Research Alliance for Accessible Voting, plan to add to the body of knowledge about the impact of issues of polling place accessibility including accessible technology with a pending study for 2012.

Recent experience has shown that when a comprehensive backup plan does not exist, disruption of voting, long lines, frustrated voters and, sometimes, outright disenfranchisement will occur.

For example:

- In the 2008 general election in Prince George's County, Maryland, due to malfunctioning or an insufficient number of DRE voting machines, voters were required to wait up to five hours in line to vote, and there is no indication that they were offered emergency ballots.⁶⁴ In the 2010 general election, four precincts in Baltimore County reported that when voters pushed the button for one of the candidates on the ballot, they were redirected to the write-in screen; election officials attributed the problem to a "calibration error" on the touch screen machines and took the machines out of service, but apparently, instead of issuing emergency ballots, election officials were "told to explain the issue to voters and urged voters to double check their votes before finalizing them."⁶⁵
- In the 2008 general election, voters in Bartlett, Tennessee were unable to use the town's voting machines for the first few hours of the day.⁶⁶ Apparently, poll workers entered the wrong code into the machine, and the machines did not load the ballot for the municipal election properly.⁶⁷ Some voters filled out paper ballots but as many as one hundred people had to leave without voting before the problem was resolved.⁶⁸
- In the 2008 general election, voters in several Texas counties reported that when they attempted to vote straight-party Democrat, the voting machine they were using flipped their votes from Democrat to Republican; there is no indication that the machines were repaired or that voters were offered emergency ballots.⁶⁹ While similar complaints came in from seven different counties, representatives of the companies who manufactured these Texas voting machines denied that the vote-flipping irregularity was possible.⁷⁰ Notably, the seven counties used voting machines from three different manufacturers.⁷¹ This demonstrates that touch screen voting machines as a whole may be vulnerable to calibration problems.
- In the 2010 general election in Pine Valley, Indiana, a voter attempted to vote for all Republicans, but when he made his selection the voting machine recorded it as a straight Democrat ticket vote.⁷² In this case, when the voter informed the election judge, the machine was re-calibrated and reportedly correctly recorded his vote.⁷³

- During the primary in May 2011, voters in Venango County, Pennsylvania also complained that the paperless electronic touch screens were flipping their choices from one party to another.⁷⁴ The county's special Election Board conducted a forensic audit of the election results and machines,⁷⁵ which were paperless DREs,⁷⁶ and made a decision to use paper ballots counted by a scanning machine for the November 2011 election.⁷⁷ The Board reported that the new paper-based voting system performed well.⁷⁸

The good news is that these types of Election Day disruptions can be remedied with comprehensive contingency planning. Even in the event of large-scale DRE failures, good plans will allow voting to continue uninterrupted. We have reviewed the laws, policies and practices of the 23 states that deploy DRE voting machines (VVPAT-equipped or otherwise) as their standard polling place equipment. After consulting with local election officials, we have compiled a list of the practices that best ensure citizens will be able to vote without long wait times should machines fail, and that their votes will be counted.

BEST PRACTICES FOR CONTINGENCY PLANS

The following is a list of “best practices” that are critical to ensuring that DRE voting machine failures do not disenfranchise voters, and the rationale behind each of them. Each of these practices is in place in at least some states that use DREs (VVPAT-equipped or not) as the standard polling place equipment in some or all counties:

Have procedures in place for machine repair or replacement in the event of failures

When machines fail to start up or break down in the middle of the voting day, it is critical for technicians to be available to fix problems. All the states surveyed had contingency plans that included repairing or replacing malfunctioning machinery. In the case of Indiana, the contingency measure for addressing machine failures is to deploy paper ballots rather than repair the machines.

Have paper ballots available at every polling place

States should require emergency paper ballots to be kept at the polling place. If machines fail, and ballots are not immediately available, voters will be forced to wait at the precincts until ballots arrive. If weather is inclement, the delay can be even longer as counties struggle to get ballots where they are needed.

Fourteen states that use DREs as the primary voting system require emergency paper ballots to be available at each polling place, and two more allow for the use of emergency ballots generally. Counties in Louisiana, Mississippi, Nevada, Texas and Utah use them in practice without being legally required to do so. Only two states have no such requirement or practice - Delaware and West Virginia.

Allow emergency paper ballots to be deployed when *any* machine malfunctions

If the failure of most or even half the machines in a polling place leads to long lines at the polls, workers should be able to deploy emergency paper ballots.

Only three states require that emergency ballots be deployed in the event that *any* machine fails – California, Indiana and Ohio. One (Kansas) recommends it, eleven allow for that practice without requiring it, and one (Pennsylvania) requires emergency ballots to be deployed when half of the machines fail. Four states do not allow emergency ballots to be deployed unless all machines fail – Colorado, Delaware, Maryland and Utah – and one (Virginia) allows emergency ballots to be deployed if any machine fails, but appears not to do it in practice. Not allowing emergency ballots to be deployed until all machines fail ties the hands of election workers.

Make sure emergency paper ballots are available at the polling place in the event of long lines

If there are not enough machines for voters because of machine failures or a misallocation of machines among precincts, voters may be forced to wait in long lines to cast a ballot. Some voters, who will be unable to wait, may be disenfranchised by the excessive delay. Long lines may develop at rush hour in the morning and evening if machine allocation is inadequate and ballots have questions or initiatives that are long and complicated. Election workers must be given the flexibility to address situations in which wait times have become excessively long. They must have *adequate numbers* of paper ballots to alleviate long lines.

Three states — California, Ohio and Tennessee — require emergency paper ballots to be deployed in order to alleviate long wait times at the polls. Counties in one state (Arkansas) reported deploying emergency ballots to alleviate long lines in practice. Eight more states allow emergency ballots to be deployed for that reason without legally requiring it. Nine do not allow them to be deployed for that reason, one (Mississippi) expressly prohibits it, and another (Louisiana) provides for the distribution of additional voting machines instead.

Treat emergency ballots as regular ballots, not subject to additional scrutiny

In addition to these practices, it is important that states develop procedures to ensure that emergency paper ballots are treated as regular ballots and are not mixed with provisional or absentee ballots, which generally are subject to additional scrutiny before being counted.

Ten states expressly require that emergency ballots be treated and counted like regular ballots, and ten others do not expressly require that. One (Georgia) appears to have a requirement that emergency ballots be counted as regular ballots that may not be carried out consistently in practice. Another (Nevada) appears to have emergency ballot counting practices that vary from one county to the next, and one more (Utah) appears to subject emergency ballots to additional scrutiny in practice.

In our description of state practices in “Rating the States,” below, we highlight states that have done a particularly good job in adopting model procedures in these areas.

RATING THE STATES

States that use paper ballots and optical scan systems as the standard polling place equipment in every county do not require contingency plans in the event of machine failure. When an optical scanner fails, voters who do not need assistance marking a ballot can continue voting uninterrupted by simply marking their ballots and depositing them in auxiliary bins to be counted later by machine or by hand. Voters who do need assistance marking a ballot would also not be disenfranchised, because they would be voting on a DRE or ballot marking device. In addition, one optical scan machine can easily process the ballots of thousands of voters. Therefore, long lines will not generally be caused by a shortage of equipment. For those reasons, all of the states that use paper ballot optical scan systems statewide were rated **N/A** because contingency planning is not required in those states to prevent disenfranchisement due to machine failure or shortage.

Every state that uses DREs as the primary voting system in some or all counties had some kind of contingency plan in place to address machine failure. However, only California, Indiana and Ohio implemented most or all the “best practices” listed above, and received a rating of **excellent**. The state ratings correspond to how many of the practices were required or recommended by the state.

We rated the states on a scale of one to five based on the criteria above. We awarded one point for “required” best practices, and a half point for best practices that were “allowed” or carried out in practice. We deducted one point for best practices that were expressly prohibited, and a half point for best practices that were provided for in the code or regulations but not carried out in practice. We then rounded up to the next whole number. Thus a state that required two of the best practices and conducted a third in practice would have a score of 2.5, which we rounding up to 3, and the state would be rated “generally good.” The ratings can be summarized as follows:

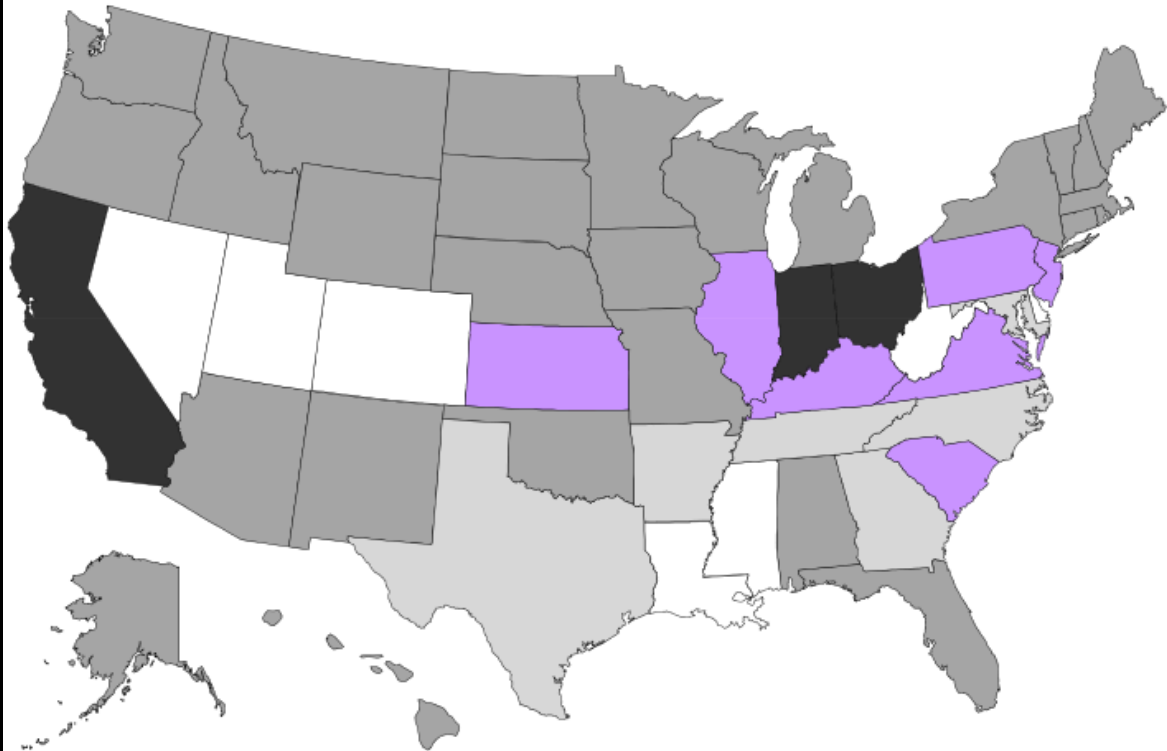
Needs Improvement – States that implemented two or fewer of the best practices.

Generally Good – States that implemented three of the best practices.

Good – States that implemented four of the best practices.

Excellent – States that implemented five of the best practices.

Polling Place Contingency Plans



☐ Needs Improvement
 ☐ Generally Good
 ☐ N/A
 ☐ Good
 ☐ Excellent

Polling Place Contingency Plans: Repair of Machines and Emergency Paper Ballots

Alabama	N/A (Paper Ballots)
Alaska	N/A (Paper Ballots)
Arizona	N/A (Paper Ballots)
Arkansas	Generally Good
California	Excellent
Colorado	Needs Improvement
Connecticut	N/A (Paper Ballots)
Delaware	Needs Improvement
D.C.	N/A (Paper Ballots)
Florida*	N/A (Paper Ballots)
Georgia	Generally Good
Hawaii	N/A (Paper Ballots)
Idaho**	N/A (Paper Ballots)
Illinois	Good
Indiana	Excellent
Iowa	N/A (Paper Ballots)
Kansas	Good
Kentucky	Good
Louisiana	Needs Improvement
Maine	N/A (Paper Ballots)
Maryland	Generally Good
Massachusetts	N/A (Paper Ballots)
Michigan	N/A (Paper Ballots)
Minnesota	N/A (Paper Ballots)
Mississippi	Needs Improvement
Missouri***	N/A (Paper Ballots)

Montana	N/A (Paper Ballots)
Nebraska	N/A (Paper Ballots)
Nevada	Needs Improvement
New Hampshire	N/A (Paper Ballots)
New Jersey	Good
New Mexico	N/A (Paper Ballots)
New York	N/A (Paper Ballots)
North Carolina	Generally Good
North Dakota	N/A (Paper Ballots)
Ohio	Excellent
Oklahoma	N/A (Paper Ballots)
Oregon****	N/A (Paper Ballots)
Pennsylvania	Good
Rhode Island	N/A (Paper Ballots)
South Carolina	Good
South Dakota	N/A (Paper Ballots)
Tennessee	Generally Good
Texas	Generally Good
Utah	Needs Improvement
Vermont	N/A (Paper Ballots)
Virginia	Good
Washington****	N/A (Paper Ballots)
West Virginia	Needs Improvement
Wisconsin***	N/A (Paper Ballots)
Wyoming***	N/A (Paper Ballots)

* Florida only uses DREs for disability access; in the event of machine failure, either machine repair or a paper ballot and assistance marking it would be required.

** Idaho also uses punch cards in four counties and hand counts paper ballots in 15 counties

*** St. Louis City, St. Louis County and Boone County, Missouri use both DREs and paper ballots in many or a majority of precincts; 5 cities or towns in Wisconsin use DREs but make paper ballots available also; one county in Wyoming uses DREs

****Oregon and Washington vote by mail

STATE PRACTICES IN DETAIL

Arkansas

Arkansas uses VVPAT-equipped DREs and paperless DREs as the standard voting system in a majority of its counties.⁷⁹ The contingency plans in Arkansas are **generally good** but need improvement in specific areas.

Having procedures in place for machine repair or replacement in the event of failures

Arkansas has procedures for the repair or replacement of voting machines in the event of malfunction. Arkansas code states that if “any voting machine is out of order or fails to work,” the county-level board of election commissioners should “be ready at any time on Election Day to deliver ballots, ballot boxes, replacement voting machines, if available, or other necessary equipment required by law for voting to any precinct.”⁸⁰

Having paper ballots available at every polling place

The Arkansas code requires election officials to have paper ballots and ballot boxes available to allow voting to continue in the event of machine failure.

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

Arkansas requires emergency paper ballots to be kept at the polling place, and allows their deployment in the event that “any” machine fails. One county surveyed reported that emergency ballots are only used in the event *all* machines fail.⁸¹ Another reported that voters “can ask to use emergency paper ballots at any time.”⁸²

The Arkansas Secretary of State *has* verbally advised all counties that deploy DREs to make sure they have sufficient paper ballots on hand in the event of an emergency. The state also requires provisional paper ballots to be deployed at each polling place, and election officials may use these for emergencies. Both of the counties surveyed confirmed the foregoing.⁸³

Making sure emergency paper ballots are available at the polling place in the event of long lines

Arkansas does not require or explicitly authorize the use of emergency ballots to alleviate long lines. One of the counties surveyed reported that it had deployed emergency ballots once to alleviate long lines,⁸⁴ and the other confirmed that DREs are only used in rural counties, which rarely experience long lines, and reported that it had not experienced long lines.⁸⁵

Treating emergency ballots as regular ballots, not subject to additional scrutiny

Arkansas uses provisional ballots for emergency purposes, but the code does not require that they be treated as regular ballots and be counted without being subject to the additional scrutiny applied to provisional or absentee ballots.

Recommendation: Arkansas requires two of the best practices. Some counties conduct a third in practice. Thus Arkansas' state contingency plans are generally good but need improvement in specific areas. Arkansas should require emergency ballots to be deployed if any machine fails or if insufficient machine allocation leads to long lines at the polls. Because provisional ballots are used for this purpose, the state should have clear protocols to ensure such ballots are counted and treated as regular ballots on Election Day and not subject to the additional scrutiny of provisional ballots or absentee ballots. Counties should develop secure strategies for deploying, collecting, storing and accounting for all emergency paper ballots prior to their counting.

California

California uses DREs which, by law, must be equipped with a VVPAT, as the standard voting system in only two of its counties.⁸⁶ The contingency plans in California are excellent.

Having procedures in place for machine repair or replacement in the event of failures

California has procedures for the repair or replacement of voting machines in the event of malfunction. The only two counties in California that deploy DRE voting systems as the primary voting system are San Mateo and Orange counties.⁸⁷ Under the order of the Secretary of State, machines must be repaired or replaced upon malfunction. Both San Mateo and Orange counties confirmed that they have contingency plans in the event of machine failure, and an optical scan county also confirmed the same.⁸⁸ Orange County reported that “[w]e usually have six to eight booths per polling place” and for the general election in November, “if you have two or three down, and lines, obviously we’ll shift to paper pretty quick.”⁸⁹ In addition, according to the Secretary of State’s office, “if a machine malfunctions during Election Day . . . rules adopted by the Secretary of State require the voting machine to be taken out of service, sequestered, and 100% of all votes cast on that machine must be manually tallied.”⁹⁰

Having paper ballots available at every polling place

San Mateo and Orange counties are governed by a California statute that requires election officials to provide paper ballots at the polling place,⁹¹ and entitles voters to a paper ballot upon machine failure,⁹² or simply upon request, “regardless of the availability of the direct recording electronic voting system, as long as supplies remain available.”⁹³

The statute requires each polling place to have paper ballots in the amount of at least 10% of registered voters in the polling place for the statewide general election.⁹⁴ Election officials in Orange County reported that the county indicates that “[w]e have a ton of paper out there in case of issues that may arise.”⁹⁵

In addition, California Elections Code “requires elections officials to deliver, within 2 hours, additional ballots to any precinct where an eligible voter is unable to vote due to an insufficient number of ballots. While waiting, the voter has the option of casting a vote immediately using procedures that are subject to approval by the Secretary of State.”⁹⁶ Allowable methods include the use of provisional, absentee and sample ballots, reasonable facsimiles thereof, “[b]allots from neighboring precincts, provided the ballot types are identical,” emergency or test ballots containing all of the candidates and questions on the regular ballots for that precinct, and “[a] blank piece of paper upon which the names of all of the candidates and titles of ballots measures are printed, along with corresponding areas to allow voters to select their choices.”⁹⁷ San Mateo County reported that it would be prepared to use a wide variety of ballots for emergency purposes, including printing more paper ballots (in-house), and using any or all of the other types of ballots listed above.⁹⁸

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

As noted above, California voters are not only entitled to vote on a paper ballot if *any* machine fails, they are entitled to vote on a paper ballot even if all of the machines are working, simply by requesting one.

Making sure emergency paper ballots are available at the polling place in the event of long lines

California requires emergency paper ballots to be kept at the polling place and allows paper ballots to be used at any time.⁹⁹ As noted above, emergency paper ballots may be provided upon a voter's request, regardless of whether the direct recording electronic voting system is working, as long as sufficient supplies are available for the duration of the election.¹⁰⁰ While we do not endorse a blanket "paper or plastic" option — meaning giving every voter the option to vote on machines or paper *regardless* of whether there are long lines¹⁰¹ — we do endorse the fact that election officials will be able to provide voters with paper ballots in the event of long lines, when voters might otherwise be forced to forego voting altogether.

Treating emergency ballots as regular ballots, not subject to additional scrutiny

Although provisional ballots may be used as emergency ballots, if they are used "by an otherwise qualified voter [they] shall be counted as a regular ballot" without additional scrutiny.¹⁰²

Recommendation: None. California requires all five of the best practices, and thus California's contingency plans are excellent.

Colorado

Colorado uses VVPAT-equipped DREs as the standard polling place equipment in many counties, and paperless DREs in two counties.¹⁰³ The contingency plans in Colorado **need improvement**.

Having procedures in place for machine repair or replacement in the event of failures

Colorado law includes provisions for repair or replacement of machines in the event of failure. “In the event of a serious or catastrophic equipment failure or equipment being removed from service at one or more polling locations, or there is not adequate backup equipment [available] . . . , the county clerk and recorder shall contact the Secretary of State for authorization to use provisional ballots or mail-in ballots as an emergency voting method.”¹⁰⁴ All of the counties surveyed confirmed that this reflects actual practice.¹⁰⁵ Two of them use optical scanners as the standard polling place equipment¹⁰⁶ so machine failure is not generally an issue. Additionally, the regulations require electronic voting machines to have at least two hours of standby power capability in the event of a power failure.¹⁰⁷

Having paper ballots available at every polling place

Colorado does not require emergency paper ballots to be kept at the polling place in advance of an emergency. Rather, Colorado law provides general procedures to address voting machine failure through the use of emergency ballots. The election regulations created by the Secretary of State require that county clerks file contingency plans for electronic voting systems 60 days before the election.¹⁰⁸

As noted above, provisional and absentee ballots may be used for emergency purposes. In addition, it allows election officials to make “substitute” ballots, “as nearly in the form prescribed as practicable,” if the original ballots are lost or stolen or “if from any cause neither the official ballots nor the substitute ballots are ready in time to be distributed for the election or if the supply of ballots is exhausted before the polls are closed.”¹⁰⁹ All of the counties surveyed confirmed the foregoing.¹¹⁰ The DRE county clarified that it would “[o]rder extra ballots to have on hand” but that the ballots would “not [be] taken ahead of time to the polling place.”¹¹¹

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

The Colorado code requires a “serious or catastrophic equipment failure” as a prerequisite to the use of emergency ballots, which suggests that more than one machine must fail, and in addition, that “there is not adequate backup equipment [available].”¹¹² The DRE county surveyed reported that two machines would have to fail, and that in another DRE county, a “strong majority” of machines would have to fail, before emergency ballots were deployed.¹¹³

Making sure emergency paper ballots are available at the polling place in the event of long lines

Colorado appears to allow, but not require the use of paper ballots to alleviate long lines. According to the code, emergency ballots may be used if “there is not adequate backup equipment [available].”¹¹⁴

Treating emergency ballots as regular ballots, not subject to additional scrutiny

Colorado allows the use of provisional, absentee and “substitute” ballots as emergency ballots, but the code does not contain explicit protocols requiring such ballots, when used as emergency ballots, to be treated as regular ballots and counted without being subject to scrutiny.

Recommendation: Colorado allows for three of the best practices, but requires none. Therefore Colorado’s contingency plans need improvement. Colorado should expressly require, rather than generally allow, that machines be repaired or replaced in the event of failure, that emergency paper ballots be required to be available at the precincts in advance for deployment should voting machines fail, or where machine failure or insufficient machine allocation has led to long lines at the polls. In addition, Colorado should require that emergency ballots be deployed in the event that any machine fails. To the extent that the state only allows the counties to use provisional, absentee or “substitute” ballots for emergency purposes, clear protocols should be established to ensure such ballots are counted and treated as regular ballots on Election Day and not subject to the additional scrutiny of provisional ballots or absentee ballots. Counties should be required to develop secure strategies for deploying, collecting, storing and accounting for all emergency paper ballots prior to being counted.

Delaware

Delaware uses paperless DREs statewide.¹¹⁵ The contingency plans in Delaware **need improvement.**

Having procedures in place for machine repair or replacement in the event of failures

Delaware has procedures for the repair or replacement of voting machines in the event of malfunction. Delaware state law provides that in the event a machine becomes inoperative, it should be replaced with another machine.¹¹⁶ To ensure that machines can be replaced, each district is to “maintain and hold in readiness a reasonable number of extra voting machines to be supplied to election districts where a voting machine has become inoperative, and the department shall take reasonable steps to insure rapid delivery in such event.”¹¹⁷ According to election officials in Delaware, if a machine breaks, a roving technician is called who must also bring a replacement machine.¹¹⁸ All of the counties surveyed confirmed that the foregoing accurately describes actual practice.¹¹⁹ One of them clarified that the malfunctioning machines “are not opened on site. They only change the printer, or take the cartridge from one and switch it to a new machine.”¹²⁰

Having paper ballots available at every polling place

Delaware does not have a provision for the deployment of emergency ballots in the event of machine malfunction or for other reasons.¹²¹ All of the counties surveyed confirmed that they do not use emergency ballots,¹²² but one reported that election officials “have the capability to deploy” them.¹²³

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

As indicated above, Delaware does have procedures for the repair or replacement of machines in the event of failure, but does not have provisions for the deployment of emergency ballots regardless of whether one or all machines fail.

Making sure emergency paper ballots are available at the polling place in the event of long lines

Delaware does not have provisions for deploying emergency paper ballots in the event of long lines.

Treating emergency ballots as regular ballots, not subject to additional scrutiny

Delaware does not have provisions for using emergency ballots, nor treating them as regular ballots.

Recommendation: Delaware only requires one of the best practices – the repair or replacement of machines in the event of failure; therefore Delaware’s contingency plans need improvement. Delaware should require that emergency paper ballots be available at the precinct for deployment should voting machines fail, or where machine failure or insufficient machine allocation has led to long lines at the polls, and in the event that *any*

machine fails. If absentee or provisional ballots are used for this purpose, protocols should be established to ensure that they are counted and treated as regular ballots on Election Day and not subject to the additional scrutiny of provisional ballots or absentee ballots. Counties should be required to develop secure strategies for deploying, collecting, storing and accounting for all emergency paper ballots prior to being counted.

Georgia

Georgia uses paperless DREs statewide.¹²⁴ The contingency plans in Georgia are **generally good** but need improvement in specific areas.

Having procedures in place for machine repair or replacement in the event of failures

Georgia has procedures for the repair or replacement of voting machines in the event of malfunction. The Georgia Election Code requires repair or replacement of voting machines that malfunction during an election. Georgia regulations provide that “[i]f a DRE unit malfunctions . . . the poll manager shall immediately notify the election superintendent and shall not allow any voter to use the unit until and unless the malfunction is corrected. The election superintendent shall immediately arrange for the repair of the DRE unit or shall provide a replacement DRE unit as soon as practicable to replace the malfunctioning unit.”¹²⁵

All of the counties surveyed had contingency plans in the event of machine failure,¹²⁶ although the plans varied. One reported that in the event of machine failure, poll workers use paper ballots, “but only if they run out of machines.”¹²⁷ The respondent said he believed the ballots would be treated as provisional ballots, but “[i]t hasn’t so far happened.”¹²⁸ The memory cards from the broken machines are immediately removed, and the machines are returned to the county rather than repaired in the polling place.¹²⁹

Another county reported that in the event of machine failure, replacement machines would be used, but if none were available, voters would be given provisional ballots; the respondent said, in any case, that “[s]he has been there since 2003 and this has never happened.”¹³⁰

The third county reported it has a dedicated information technology staff, and that first it would dispatch a technician to repair the machine, and if the machine could not be repaired, a replacement machine would be provided.¹³¹ The respondent also reported that “[p]rovisional [ballots are] used, e.g., if the power goes out, until all machines are restored,” and that “no voter would be turned down,” and in addition, that poll workers “look at the turn out” when deciding whether the voters could vote on paper ballots.¹³² “If it is slow, the voters can still vote on the remaining machines,” and presumably if the polling place is busy, voters would be offered paper ballots.¹³³

Having paper ballots available at every polling place

If a DRE malfunctions¹³⁴ or is “impossible or impracticable” to use, Georgia election law states that officials *may* allow voters to vote on paper ballots.¹³⁵ In the case of machine failure, “paper ballots, either printed or written, and of any suitable form, may be used for the taking of votes.”¹³⁶ Additionally, according to Georgia regulations, provisional paper ballots must be provided at every polling location.¹³⁷ But if provisional ballots are used as emergency ballots in the case of machine failure, such ballots “shall not be considered provisional ballots and shall not require verification.”¹³⁸

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

Georgia allows deployment of paper ballots in the event that *any* machine fails. Emergency paper ballots may be used when a voting machine malfunctions and cannot be repaired. The Georgia Election Code provides that “[i]f any voting machine shall become out of order during a primary or election and repair or substitution cannot be made, paper ballots, either printed or written, and of any suitable form, may be used for the taking of votes.”¹³⁹ In addition, the code provides that “if, for any . . . reason, at any primary or election the use of voting machines wholly or in part is not practicable, the superintendent may arrange to have the voting for such candidates or offices or for such questions conducted by paper ballots.”¹⁴⁰

Making sure emergency paper ballots are available at the polling place in the event of long lines

Notwithstanding the foregoing, the Georgia Code does not explicitly forbid the use of emergency paper ballots to alleviate other potential problems on Election Day, such as long lines at the polls caused by insufficient machine allocation or machine failure.

Treating emergency ballots as regular ballots, not subject to additional scrutiny

Georgia has rules to ensure emergency paper ballots are treated as regular ballots. As noted above, the law clearly states that if paper ballots are used for emergencies, the ballots “shall not be considered provisional ballots and shall not require verification.”¹⁴¹ Regrettably, as illustrated below, these important requirements do not appear to be carried out uniformly.

One county reported that in the event of machine failure, voters would be given provisional ballots, and that although such voters would “show ID as before [regular] voting,” they would “not need to come to the office after the election, as is usual with provisional ballots.”¹⁴²

Another reported similarly that when provisional ballots are used as emergency ballots they would be subject to scrutiny before counting: “[a]lways the ballot has to be verified, to see if the voter voted in the correct precinct [or] to see if it is a valid ballot cast.”¹⁴³

Recommendation: Georgia requires at least one best practice, and allows for two others. However, it appears that a requirement to count emergency ballots as regular ballots is not necessarily being carried out in practice. Therefore, Georgia’s contingency plans are generally good but need improvement in specific areas. Georgia should require that emergency paper ballots be available at the polling place, that they be deployed in the event of machine failure or if insufficient machine allocation has led to long lines, and that they be deployed if *any* machine fails. In addition, the requirement that emergency ballots be treated and counted as regular ballots without being subject to additional scrutiny should be rigorously enforced.

Illinois

Illinois uses VVPAT-equipped DREs as the standard polling place equipment in only one county.¹⁴⁴ The contingency plans in Illinois are **good**.

Having procedures in place for machine repair or replacement in the event of failures

Illinois has procedures for the repair or replacement of voting machines in the event of malfunction. Illinois law states that if a machine malfunctions during an election (or primary election), the custodian or election authority must, if possible, repair the damaged machine or replace it with a substitute.¹⁴⁵ According to the State Board of Elections, this is rarely an issue because “Illinois has 110 election jurisdictions [and] 107 of them use optical scan [voting machines] on Election Day. If a tabulator goes down . . . [t]he voting continues” because voters don’t need the tabulator to mark the ballot.”¹⁴⁶

Having paper ballots available at every polling place

If the election authority cannot fix the machine or replace it immediately, paper ballots, printed or written and of suitable form, must be available for voters to use.¹⁴⁷ According to code, the election authority must provide ballots to each precinct equal to at least 20% of those registered to vote in that precinct.¹⁴⁸ According to the Board of Elections, the “election authority must provide ballots to each precinct in excess of 10% above the number of registered voters in that precinct.”¹⁴⁹ One county surveyed for the report confirmed that it provides ballots in excess of 10% above the number of registered voters, in accordance with the Board.¹⁵⁰

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

DREs are used as the primary voting system in only two counties in Illinois — Peoria and Kane counties.¹⁵¹ In addition, DREs are used by the Peoria City Board of Election Commissioners.¹⁵² Illinois requires emergency paper ballots to be kept at the polling place and allows deployment in the event that *any* machine fails. Illinois does not restrict the deployment of emergency paper ballots. Under state law, the officers in charge of preparing ballot labels for the voting machines have wide discretion in determining whether citizens may vote by paper ballot. If the use of voting machines in an election is not “practicable or possible,”¹⁵³ the officer(s) may arrange for voters to vote by paper ballot.¹⁵⁴ According to the Board of Elections, because Illinois is almost entirely a paper ballot state, the emergency ballot requirement in the code has in essence lapsed, and “paper ballots are available at the polling place per the election authority’s discretion.”¹⁵⁵

According to the Board of Elections, Peoria County and the Peoria City Board of Election Commissioners take a series of actions to comply with Illinois law.¹⁵⁶ If one of its voting machines goes down, that machine is removed and examined by an election judge.¹⁵⁷ If the judge cannot fix the machine, he/she will contact a member of the field support staff, who will come to the polling location and try to fix it.¹⁵⁸ If the machine cannot be repaired, the polling location will continue operating with the remaining machines.¹⁵⁹

Kane County, according to the Board, requires that there be a certain number of DRE voting machines per voter.¹⁶⁰ This ratio is based on the time it takes to cast a ballot and other factors that help determine the number of people who vote in a given election.¹⁶¹ Kane County also maintains battery backups in the event of a power outage, places IT people within a few minutes of all polling locations to tend to problematic machines and maintains extra voting machines at locations near polling places.¹⁶²

Making sure emergency paper ballots are available at the polling place in the event of long lines

As indicated above, election officials have discretion in the deployment of emergency paper ballots, and may deploy them if the use of voting machines in an election is not “practicable or possible.”¹⁶³

Treating emergency ballots as regular ballots, not subject to additional scrutiny

In the event that emergency ballots are used as described above, the Illinois elections code provides that the ballots shall be “counted and return thereof made in the manner required by law for [all] candidates or offices, insofar as paper ballots are used.”¹⁶⁴

Recommendation: Illinois requires three of the best practices and allows for the other two. Therefore Illinois’ state contingency plans are good. State law requires that emergency ballots be stocked at the polling place, and only two counties that use DREs need them. The state does not restrict deployment of emergency paper ballots. However, the state should explicitly provide that emergency ballots may be distributed in the event that any machine fails, and if insufficient machine allocation has led to long lines at the polls.

Indiana

Indiana uses paperless DREs in the majority of its counties.¹⁶⁵ The contingency plans in Indiana are **excellent**.

Having procedures in place for machine repair or replacement in the event of failures

Indiana law contains provisions to address electronic voting machine failure, although it does not address repair or replacement of the equipment. Rather, it requires the deployment of paper ballots. It provides that, upon notice from a precinct that an electronic voting system has failed, the county election board shall “deliver to any precinct in the county: (1) necessary paper ballots; (2) election booths with an adequate number of stalls; (3) ballot boxes; and (4) all necessary supplies and equipment as required by law.”¹⁶⁶

Having paper ballots available at every polling place

There is a specific provision of the state elections code that applies to any county with a population greater than 400,000 but less than 700,000.¹⁶⁷ (Notably only one county, Lake County, falls in this category.) In this case, at least 25 emergency paper ballots must be stocked at the polling place if there are more than 300 registered voters assigned to a precinct.¹⁶⁸ If there are 300 or fewer voters, the law calls for a contingency of a minimum of ten emergency paper ballots.¹⁶⁹

For all other counties, the law does not give a benchmark number, but still requires that emergency ballots be delivered to the polls on Election Day. According to the code, prior to Election Day, the county election board is required to deliver to each inspector the number of ballots that will be required to be printed and furnished to the precincts for emergency purposes.¹⁷⁰ The Indiana code also allows precinct county boards to print ballots if “there are no ballots or other necessary means for voting at the opening of the polls,” provided that the ballots “conform as nearly as possible to the official ballots.”¹⁷¹ All of the counties surveyed confirmed that they have emergency ballots available.¹⁷² One added that the county “[has] enough emergency ballots for all voters” and that “emergency paper ballots . . . would be hand counted at the precinct.”¹⁷³ Another county clarified that “precincts would not have the ability to print” but that the county “would send [poll workers] out with emergency paper ballots.”¹⁷⁴

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

As indicated above, in the event that an (“any”) electronic voting system has failed, the county shall deliver the necessary paper ballot, booths, ballot boxes and other supplies needed to enable voters to continue voting.

Making sure emergency paper ballots are available at the polling place in the event of long lines

Indiana requires emergency paper ballots to be kept at the polling place and allows paper ballots to be used if there are long lines due to machine failure or inadequate allocation of machines. The Indiana code provides that “if, in the judgment of a county election board,

the number of voters in a precinct of the county where a voting system is used for voting is so large that the voting system in use will not be sufficient to register the vote of all the voters in the precinct, the board may use paper ballots in addition to the voting system.”¹⁷⁵

Treating emergency ballots as regular ballots, not subject to additional scrutiny

The provisions in the Indiana code calling for the use of emergency ballots in the event of machine failure do not include requirements that the ballots be treated and counted as regular ballots not subject to additional scrutiny, but the State Director of Elections reports that emergency ballots are counted as regular ballots unless the voter otherwise would have been required to vote provisionally.¹⁷⁶

Recommendation: Indiana requires deployment of paper ballots immediately upon machine failure, requires that emergency ballots be available at the polls, requires their deployment in the event that any machine fails, allows for deployment to alleviate long lines, and in practice treats emergency ballots as regular ballots. Therefore, the laws and practices governing contingency planning in Indiana are excellent. We recommend only that the law be amended to require explicitly that emergency ballots be treated and counted as regular ballots.

Kansas

Kansas uses paperless DREs in many counties, and VVPAT-equipped DREs in several counties.¹⁷⁷ The contingency plans in Kansas are **good**.

Having procedures in place for machine repair or replacement in the event of failures

Kansas has procedures for the repair or replacement of voting machines in the event of malfunction. Kansas law charges the county election officer with the duty of providing for the storage, safekeeping and repair of voting machines.¹⁷⁸ The law does not specifically mention repairs at the polling place, and the counties surveyed reported varying practices with respect to machine repairs. One, an optical scan county, reported that in the event of machine failure, if the county has an extra machine, it would use that; if not, it would repair the machine at the polls, if possible, or after the election if not possible during the election.¹⁷⁹ Another, a DRE county, reported that it had never required a machine repair, but if it did and a repair could not be made, it would take the machine out of service.¹⁸⁰ A third, another optical scan county, reported that if repairs are required the machines are taken from the polling place and repaired in the repair shop.¹⁸¹

Having paper ballots available at every polling place

Kansas law requires county election officers to retain additional ballots “to meet any emergency need for such ballots that might arise from loss or destruction of ballots, enlarged vote or any other legitimate cause.”¹⁸² Additionally, the Kansas state election director has advised each precinct to keep emergency paper ballots on hand in the event of machine failure or emergency.¹⁸³ All of the counties surveyed indicated that they are planning to stock emergency paper ballots at the polls for use in the event of machine failure,¹⁸⁴ but one clarified that it also offers “touch screen ballots”¹⁸⁵ (which the authors assume refers to allowing voters to vote on the paperless DRE machine used for disability access in that county, although the authors would recommend that voters simply mark their optical scan ballots and deposit them in the auxiliary bin instead).

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

The Kansas state election director recommends that paper ballots be kept at the polling place and allows deployment in the event that *any* machine fails.¹⁸⁶

Making sure emergency paper ballots are available at the polling place in the event of long lines

According to the Secretary of State’s election director, emergency paper ballots may be used in four instances: (1) in case of machine malfunction; (2) to keep lines moving and to alleviate long lines in a heavy turnout election or during busy times of day; (3) to accommodate voters who don’t want to vote on DREs; and (4) for provisional voting.¹⁸⁷ All of the counties surveyed confirmed that emergency ballots may be used in all of the foregoing circumstances,¹⁸⁸ although one of the optical scan counties clarified that it simply uses the optical scan ballots, not “emergency” ballots,¹⁸⁹ and the other reported that it had never experienced a problem with long lines.¹⁹⁰

Treating emergency ballots as regular ballots, not subject to additional scrutiny

The provisions in the Kansas code requiring the use of emergency paper ballots under the circumstances described above do not include requirements that such ballots be treated and counted as regular ballots.¹⁹¹

Recommendation: Kansas requires two of the best practices, recommends a third and allows for a fourth, therefore the contingency policies and practices in Kansas are good. Kansas should require the deployment of emergency ballots in the event that any machine fails, and to alleviate long lines, and should require explicitly that emergency ballots be treated and counted as regular ballots.

Kentucky

Kentucky uses paperless DREs in approximately one-third of its counties.¹⁹² The contingency plans in Kentucky are **good**.

Having procedures in place for machine repair or replacement in the event of failures

Kentucky law prescribes procedures for the repair or replacement of voting machines in the event of malfunction. Kentucky law provides that “if an emergency should arise due to the malfunction of the voting machine, the county clerk shall provide a backup voting machine or supplemental paper ballots for use at the precinct.”¹⁹³

Having paper ballots available at every polling place

At least fifty days prior to the election,¹⁹⁴ Kentucky law requires the county clerk to print a “sufficient number” of paper ballots to be used for absentee voting and for an emergency situation.¹⁹⁵

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

Kentucky recommends that emergency paper ballots be kept at the polling place and allows deployment in the event that *any* machine fails. Emergency paper ballots may be used when a voting machine malfunctions¹⁹⁶ or “for voting in an emergency situation.”¹⁹⁷ All of the counties surveyed for the reported confirmed or generally confirmed the foregoing,¹⁹⁸ although two of them use optical scanners as the standard polling place equipment.¹⁹⁹

Making sure emergency paper ballots are available at the polling place in the event of long lines

Notwithstanding the foregoing, emergency ballots may not be used solely to help voters avoid long lines at the polls.²⁰⁰ The DRE county surveyed only reported that “backup machines [are] to be provided to precincts when a machine fails.”²⁰¹ The use of emergency paper ballots also depends on the emergency contingency plans each Kentucky county adopts.²⁰²

Treating emergency ballots as regular ballots, not subject to additional scrutiny

The provisions of the Kentucky code that require the use of emergency ballots in the event of machine failure include requirements to treat and count those ballots as regular ballots not subject to additional scrutiny. In particular, the code requires that “[a]t the close of voting, the [emergency] ballots shall be counted at the precinct or at a central counting center and added to the votes cast by machine. The aggregate of these votes shall be certified as the result of the election in that precinct.”²⁰³

Recommendation: Kentucky requires three of the best practices and allows for one, therefore, the contingency plans in Kentucky are good. State law should be changed to allow for the distribution of paper ballots explicitly to alleviate long lines due to insufficient machine allocation, and to require explicitly that emergency ballots be treated and counted as

regular ballots. In addition, Kentucky should ensure that all counties implement and enforce all of the best practices required.

Louisiana

Louisiana uses paperless DREs statewide.²⁰⁴ Louisiana contingency plans **need improvement.**

Having procedures in place for machine repair or replacement in the event of failures

Louisiana has procedures for the repair or replacement of voting machines in the event of malfunction. The Secretary of State is required to have mechanics and experts available to repair any voting machines that malfunction on Election Day.²⁰⁵ Additionally, if any voting machines remain unallocated for an election the Secretary of State is required to set aside machines -- “not to exceed five percent of the total available” -- for the purpose of replacing damaged or disabled machines.²⁰⁶ The Secretary of State is also authorized to reallocate voting machines between voting parishes if a voting machine shortage exists in a particular parish.²⁰⁷ The Secretary of State confirmed all of the foregoing.²⁰⁸

All of the parishes surveyed confirmed that they have experts and technicians available to repair machines in the event of machine failure on Election Day.²⁰⁹ One added that technicians may also help over the phone,²¹⁰ and another added that “if necessary we would replace [a machine] it but it has never happened.”²¹¹

Having paper ballots available at every polling place

Paper ballots are not kept at the polling place. They are stored at the parish register office and may be used in an emergency on Election Day.²¹² One parish reported that it does have emergency ballots available at the polls in the event of machine failure,²¹³ and another reported that emergency ballots are “included in the Secretary of State packages that are in the machines.”²¹⁴ The third reported similarly that “the Secretary of State provides that” and that “[t]here are some paper ballots,” but that “[w]e have a battery on the machines [in case the] electricity goes out.”²¹⁵

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

One parish reported that “[w]e keep 2 machines on hand” and “[i]f both go down we use paper.”²¹⁶ Another reported that it would be up to the Secretary of State how many machines would have to fail before emergency ballots would be deployed,²¹⁷ and the third reported that it had never experienced a machine failure.²¹⁸

Making sure emergency paper ballots are available at the polling place in the event of long lines

The Louisiana elections code does not contain provisions calling for the deployment of emergency paper ballots in the event of long lines, and none of the parishes surveyed deploy emergency ballots for that purpose.²¹⁹ However, it does contain provisions allowing the Secretary of State to reallocate equipment if the Secretary determines “that a voting machine shortage exists in a parish,”²²⁰ and allowing parish board of election supervisors to request “additional voting machines for overcrowded precincts.”²²¹

Treating emergency ballots as regular ballots, not subject to additional scrutiny

The Louisiana code does not have provisions for the use of emergency ballots, and therefore does not include protocols for how they should be treated. One of the parishes surveyed reported that emergency ballots “are counted as regular ballots.”²²² Another reported that emergency ballots “would have to be counted by hand by the Board of Elections Supervisors.”²²³ The third reported that “we have an election committee board that would decide.”²²⁴

Recommendation: Louisiana only requires one of the best practices, but conducts another in practice and provides for an alternative method for one of the others, therefore Louisiana’s contingency plans need improvement. Emergency paper ballots should be required to be available at the precinct for use in the event of machine failure, and in the event that any machine fails, or where machine failure or insufficient machine allocation has led to long lines at the polls. If absentee or provisional ballots are used for this purpose, protocols should be established to ensure such ballots are counted and treated as regular ballots on Election Day and not subject to the additional scrutiny of provisional ballots or absentee ballots. Parishes should be required to develop secure strategies for deploying, collecting, storing and accounting for all emergency paper ballots prior to counting.

Maryland

Maryland uses paperless DREs statewide.²²⁵ The contingency plans in Maryland are **generally good** but need improvement in specific areas.

Having procedures in place for machine repair or replacement in the event of failures

Maryland has procedures for the repair or replacement of voting machines in the event of malfunction. *Maryland law does not explicitly address how to respond to a machine malfunction on Election Day.* It only directs local boards to “provide for delivery to each polling place the supplies, records and equipment necessary for the conduct of the election.”²²⁶

However, the Maryland State Board of Elections has developed a series of measures to address machine failure. According to the State Board of Elections, if a machine stops working, election workers must contact the county boards of election so a technician can be sent to repair or replace the machine.²²⁷ Second, all voting machines have battery backups and, according to the State Board of Elections, would not lose any votes already cast if the power goes out.²²⁸ All of the counties surveyed confirmed that they have contingency plans in the event of machine failure,²²⁹ however only two confirmed that they deploy technicians to make repairs as described above,²³⁰ while the third reported that “[n]o repairs are made on Election Day” but rather the machine is shut down and the votes cast on it up to that point are preserved on the memory card.²³¹

Having paper ballots available at every polling place

Maryland requires emergency paper ballots to be kept at the polling place. Election officials are required to prepackage emergency supply bags containing photocopied optical scan ballots and instructions in the event of a machine malfunction. These bags are distributed to local precincts by the local boards of election. Finally, Maryland allows provisional ballots to be used as emergency paper ballots if (1) all machines are not operative in a given voting location and (2) emergency ballots have not yet been delivered from the county board to the precinct. All of the counties surveyed confirmed that the foregoing reflects actual practice, and the State Board of Elections confirmed that the policy is to count emergency ballots as regular ballots.²³²

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

Maryland requires emergency paper ballots to be kept at the polling place, but only requires deployment in the event *all* machines fail. All of the counties surveyed confirmed this, and the State Board of Elections added that emergency ballots “would only be used in the event of a full shut down.”²³³

Making sure emergency paper ballots are available at the polling place in the event of long lines

The Maryland code does not include provisions calling for the use of paper ballots to alleviate long lines, and as noted above the policy would not be to deploy them to alleviate long lines.

Treating emergency ballots as regular ballots, not subject to additional scrutiny

The Maryland code does not contain provisions explicitly requiring emergency ballots to be treated or counted as regular ballots, although as noted above the policy is that emergency ballots will be counted as regular ballots.

Recommendation: Maryland requires only one best practice and allows for another one, and therefore Maryland's contingency plans are generally good but need improvement in specific areas. The Maryland State Board of Elections should not restrict the deployment of emergency ballots to instances when all the machines in a polling place are inoperable. If the failure of a few machines or inadequate machine allocation results in long lines, election workers should coordinate with local county boards of election to give voters the opportunity to mark emergency ballots. The Maryland State Board of Elections should enact an explicit requirement mandating that emergency ballots be treated as regular ballots.

Mississippi

Mississippi uses paperless DREs in three counties, and VVPAT-equipped DREs in all but four of the remaining counties.²³⁴ The contingency plans in Mississippi **need improvement**.

Having procedures in place for machine repair or replacement in the event of failures

Mississippi has procedures for the repair or replacement of voting machines in the event of malfunction. Mississippi law states that “[i]n case any voting machine used in any voting precinct shall, during the time the polls are open, become injured so as to render it inoperative in whole or in part, it shall be the duty of the manager immediately to give notice thereof to the registrar providing such machine, and it shall be the duty of the registrar, if possible, to substitute a perfect machine for the injured machine.”²³⁵ Both of the counties surveyed for the report confirmed that they have machines available to replace machines that malfunction,²³⁶ one of which uses DREs as the standard polling place equipment and reported in addition that “[w]e have two options . . . [t]here are extra machines” but “we always have emergency ballots at our precinct” and which option is used “just depends on where the precinct is.”²³⁷

Having paper ballots available at every polling place

Mississippi law states that if repair or replacement of a machine cannot be made, paper ballots “made as nearly as possible in the form of the official ballot may be used,” and are to be “counted with the votes registered on the voting machine” as if there had been no malfunction.²³⁸ In jurisdictions using DREs, which most Mississippi counties do, if a DRE fails voters will be directed to another machine or asked to cast “irregular ballots [defined essentially as write-in ballots] . . . which shall be paper ballots” and which “shall be administered, as far as is practicable, in accordance with the laws concerning paper ballots.”²³⁹ The Secretary of State reported that, notwithstanding the foregoing, “Mississippi does not require emergency paper ballots to be kept at the polling place” but that “[a]s a practical matter . . . it is usual and customary for paper ballots, in as near as possible in the form of the official ballot, to be kept at the polling place so as to not encounter any delay in the voting process and resulting disenfranchisement of any registered, eligible voter.”²⁴⁰ The DRE county surveyed confirmed that the counties determine how many paper ballot to have on hand for emergencies.²⁴¹

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

Mississippi allows deployment of emergency ballots in the event that *any* machine fails. As indicated above, the law provides that if a (“any”) machine fails, it is to be repaired or replaced with a working machine, but if that cannot happen, then emergency ballots may be used. The Secretary of State reported that “[i]f a DRE becomes inoperable during an election, the poll managers shall direct voters to an operating terminal or to cast an [emergency ballot],”²⁴² and the DRE county surveyed confirmed the foregoing practice.²⁴³

Making sure emergency paper ballots are available at the polling place in the event of long lines

A *Mississippi Poll Manager Guide* dated 2010 reiterates the statutory emergency plan and provides that optical scan paper ballots may be used for emergency ballots “but only in the event of a voting machine malfunction.”²⁴⁴ The Mississippi Poll Manager Guides makes it clear that “optical scan emergency ballots are not to be used as a convenience item such as when the polls are busy and a voter might have to wait for a [voting machine].”²⁴⁵ The Secretary of State reported that although the referenced Guide is not actually in current use, “[i]t is correct . . . that [emergency] ballots are not to be used at the polling place as a matter of convenience, but only in the event a machine is injured and incapable of timely repair or replacement.”²⁴⁶ The DRE county surveyed confirmed the foregoing policy.²⁴⁷

Treating emergency ballots as regular ballots, not subject to additional scrutiny

As indicated above, Mississippi law provides that when paper emergency ballots are used, they are to be “counted with the votes registered on the voting machine” as if there had been no malfunction.²⁴⁸

Recommendation: Mississippi requires two of the best practices, conducts one in practice, and allows for one, but prohibits another, therefore Mississippi’s contingency plans need improvement. Mississippi should require that emergency ballots be kept at the polls, and require the deployment of emergency ballots in the event that any machine fails, and to alleviate long lines.

Nevada

Nevada uses VVPAT-equipped DREs statewide.²⁴⁹ The contingency plans in Nevada **need improvement**.

Having procedures in place for machine repair or replacement in the event of failures

Nevada uses DREs equipped with VVPATs statewide,²⁵⁰ but does not have a statutorily mandated contingency plan for voting machine malfunctions during an election. State regulations address machine failures, but only in the context of tabulating votes.²⁵¹ In 2009, Nevada adopted regulations that created specific procedures for testing voting systems,²⁵² and protocols to be followed in the event of malfunction,²⁵³ but these apply only during testing and not on Election Day. However, the Secretary of State maintains a statewide command center throughout the election, which is a State and local communication network that provides the Secretary of State's office with "immediate and accurate information" about the election.²⁵⁴ In the case of an emergency, including those emergencies related to machine malfunction or the need for disposition of paper ballots, the command center would coordinate the response.²⁵⁵ In addition, according to the Secretary of State, "[p]olling locations in Nevada have multiple voting machines, and local election officials . . . have ready extra machines to be used in the case of emergencies."²⁵⁶ Also, "[d]uring the conduct of voting, [election officials] inspect each mechanical recording device periodically during the day to see that the list of offices and candidates and the statements of measures to be voted on is intact, and that the device is otherwise in good working order."²⁵⁷

Having paper ballots available at every polling place

Nevada does not require emergency paper ballots to be kept at the polling place. State statutes direct the Secretary of State to determine "the number of ballots to be distributed to precincts and districts,"²⁵⁸ and "[t]he procedures to be used for the disposition of absent [sic] ballots in case of an emergency,"²⁵⁹ but state regulations continue to direct counties to develop their own contingency plans by "determin[ing] the most reasonable and practical method for completing the process of tabulating ballots in the event the existing system fails."²⁶⁰

In addition, to further ensure that paper ballots are available in the case of emergencies, regulations were adopted in December 2011 requiring that each county election official submit a plan (not later than 90 days before each election) to the Secretary of State setting forth the procedures that the clerk or registrar of voters will use for absentee ballots in case of an emergency.²⁶¹

The various counties surveyed reported different contingency plans, generally reflecting a combination of procedures for equipment repair and replacement and the use of emergency ballots. For example, as a contingency measure, and as was the case in 2008, Clark County will have four fifty-foot trailers that can be deployed in the case of an emergency. Each trailer meets all state and federal requirements and can house twelve voting machines. Clark County reported, however, that in addition to the trailers, it also has emergency generators distributed throughout the county; "[u]p to this point," the representative said, "when we

have experienced power outages, deploying a generator along with a team with paper ballots has been a quicker solution and allowed us to continue voting.”²⁶²

Another County reported that it has pre-tested and programmed voting machines set aside “for the express purpose of having extras in the event of vandalism, or fire or destruction of a polling place where the [voting machines] have been made inoperable or have been destroyed.”²⁶³ That county also deploys technicians from the county’s Technology Services Department, but the “techs do not carry around emergency ballots;” “[s]hould emergency ballots be needed, full time staff would take them to the polling place in need in a lockable carrier.”²⁶⁴

A third county reported that, in the event of power outages, either battery back-ups or on site generators will be used, and that in the event of “total failure of the machines,” absentee ballots are used.²⁶⁵ If a polling place itself is rendered unusable, alternate poll locations are available.²⁶⁶

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

As indicated above, this is not a requirement in the law and the counties surveyed reported varying practices. Clark County reported that deploying emergency ballots in the event of machine failure is a “quicker solution” for the continuation of voting. A second county surveyed indicated that emergency ballots would be deployed if needed,²⁶⁷ and the third reported that only in the event of “total failure of the machines” would emergency ballots be deployed.²⁶⁸

Making sure emergency paper ballots are available at the polling place in the event of long lines

None of the election officials surveyed reported that they deployed emergency ballots to alleviate long lines. The Secretary of State reported that in the case of an emergency, including an emergency related to machine malfunction or the need for disposition of paper ballots, the Secretary of State’s statewide command center would coordinate the resources of federal, state and local law enforcement, and if an emergency exists sufficient to warrant the use of paper ballots at a polling location, law enforcement could escort the ballots to the distressed polling location.²⁶⁹

Treating emergency ballots as regular ballots, not subject to additional scrutiny

The counties surveyed reported varying practices regarding the treatment of emergency ballots. Washoe County, the second-largest county in Nevada, reported that “in order for [emergency ballots] to be counted at all, [they] would have to be counted as absent ballots on Election Night,” and that “it would be totally impractical for every jurisdiction to order sufficient paper ballots in order to cover all voters on Election Day if every precinct went down and would defeat one of the seminal reasons why the state has gone to touch screen voting.”²⁷⁰

Clark County reports that it creates “emergency ballot kits,” which travel in a secure container transported by two-person teams, and that “[i]f an emergency occurs, we determine the ballot styles needed, pull the appropriate ballots . . . seal them inside the metal ballot box,” then give it “to the two person team who then delivers them to the polling place;” “[a]t the polling place, the ballots are removed and the box is again sealed and voted ballots are dropped into it.”²⁷¹ Absentee paper ballots are also available as back-up ballots, and Clark County “pad[s] the absentee ballot order to ensure we have sufficient excess for an emergency.” Clark County also reported that it “treat[s] the paper ballots in the same manner we would if they were our primary means of voting in the County.”²⁷² Clark County reported that it “treat[s] the paper ballots in the same manner we would if they were our primary means of voting in the County.”²⁷³

Esmeralda County, reports that emergency ballots are coded and kept at the precincts, and that “a ballot is ballot, and those absentee ballots used in an emergency have no provisions attached to them. They are counted as regular ballots.”²⁷⁴ The official who responded for the county also stated that even though emergency ballots are not required to be kept at the polls by law, “its common sense” to do so.²⁷⁵

Recommendation: Although the election officials surveyed reported many good practices, Nevada does not require any of them by law; two appear to be in practice generally and two others appear to be in practice in some counties. Therefore, Nevada’s contingency plans need improvement. Emergency paper ballots should be required by law at the precinct for deployment should voting machines fail, in the event that any machine fails, and where insufficient machine allocation has led to long lines at the polls. If absentee or provisional ballots are used for this purpose, protocols should be incorporated into the law to ensure such ballots are counted and treated as regular ballots on Election Day and not subject to the additional scrutiny of provisional ballots or absentee ballots. Counties should be required to develop secure strategies for deploying, collecting, storing and accounting for all emergency paper ballots prior to being counted.

New Jersey

New Jersey uses paperless DREs statewide.²⁷⁶ The contingency plans in New Jersey are good.

Having procedures in place for machine repair or replacement in the event of failures

New Jersey has procedures for the repair or replacement of voting machines in the event of malfunction. If a voting machine becomes inoperable, state law requires that election officers contact the custodian of the voting machines (i.e., the county board of elections, the superintendent of elections or the municipal clerk) to substitute a machine in “perfect working order” for the damaged machine.²⁷⁷ The Secretary of State’s office confirmed the foregoing and added that “we have emergency ballots so if a machine is inoperable, we go to paper and then contact the county to replace.”²⁷⁸ The one county that was surveyed also confirmed these practices.²⁷⁹

Having paper ballots available at every polling place

New Jersey law mandates that the county clerk or the municipal clerk, in the case of a municipal election, prepare an emergency paper ballot box packet for every election district (polling place).²⁸⁰ According to the law, each emergency ballot box packet should include emergency ballots, pre-punched single-hole white envelopes and two tally sheets with carbon duplicates attached.²⁸¹ Each voting machine has an emergency ballot box packet attached to it. The ballots are only to be used if the voting machine fails²⁸² or “if there is considerable delay in the polling place caused by the use of the voting machine audio kit.”²⁸³ The Secretary of State’s office confirmed that emergency ballots “can be used if there is a delay in audio voting for disabled voters.”²⁸⁴ The county surveyed stated that “we do have a packet from the county clerk’s office that contains all of that.”²⁸⁵ This means that while statutes require preparedness, in actuality, precincts do not always follow statutory mandates.

New Jersey statutes do, however, explicitly authorize the use of emergency ballots “[i]f for any cause a voting machine fails to operate.”²⁸⁶ The law also mandates that each emergency ballot box packet contain a minimum of 30 ballots.²⁸⁷ If the clerk determines that an election district requires more than 30 emergency ballots based on the number of registered voters, additional emergency ballots shall be delivered to that district.²⁸⁸ The Secretary of State’s office and the county surveyed for the report confirmed the foregoing.²⁸⁹

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

New Jersey requires emergency paper ballots to be kept at the polling place and allows deployment in the event that *any* machine fails.²⁹⁰ Specifically, New Jersey law provides that “During any period when a voting machine is inoperative, emergency ballots made as nearly as possible in the form of the official ballot shall be used . . . and shall be counted with the votes registered on the voting machines. The result shall be declared the same as though there had been no accident to the voting machine.”²⁹¹ However, the New Jersey Department of State currently directs that “[i]n election districts with two voting machines, emergency ballots should not be used unless both machines are inoperable,” and that emergency ballots should not be used until the machine is examined first to see if the

problem can be corrected.²⁹² The Secretary of State's office reported that "if there are two machines you would use the operable one."²⁹³ The county surveyed reported that "all voting machines must be inoperable to use emergency ballots. If we were down to one machine and the lines became overly long I am sure the Board would approve the use of the ballots but in general all machines would have to be down to use them."²⁹⁴

Making sure emergency paper ballots are available at the polling place in the event of long lines

Because of the design of the New Jersey system, in which a set of emergency ballots is associated with each machine, emergency ballots are not used to alleviate long lines at the polls caused by insufficient availability of voting machines. Emergency paper ballots are only used if "a voting machine fails to operate"²⁹⁵ or in the event of a delay caused by use of the audio kit.²⁹⁶ The Secretary of State's office and the county surveyed for the report confirmed the foregoing.²⁹⁷

Treating emergency ballots as regular ballots, not subject to additional scrutiny

As indicated above, when emergency ballots are used, they are required to be "counted with the votes registered on the voting machines. The result shall be declared the same as though there had been no accident to the voting machine."²⁹⁸

Recommendation: New Jersey requires three of the best practices and allows for one, Thus, New Jersey's contingency plans New Jersey's contingency plans are good. New Jersey has a good and detailed emergency ballot program requiring repair or replacement of machines in the event of failure. It also has emergency ballots at the polls and requires emergency ballots to be counted and treated as regular ballots. The Department of State should modify its training materials for poll workers to make clear that statutes permit that emergency ballots be deployed in the event that even one machine malfunctions, even if a precinct still has other functioning machines. In addition, because emergency ballot deployment is linked physically to machine operation, there are no statewide plans to allow emergency paper ballots to be deployed when insufficient machine allocation has led to long lines at the polls. Ultimately, New Jersey should develop and implement a rigorous protocol for deploying, collecting, storing and accounting for emergency paper ballots prior to counting.

North Carolina

North Carolina uses VVPAT-equipped DREs as the standard polling place equipment in 23 of its 100 counties.²⁹⁹ North Carolina contingency plans are **generally good** but need improvement in specific areas.

Having procedures in place for machine repair or replacement in the event of failures

North Carolina has procedures for the repair or replacement of voting machines in the event of malfunction. North Carolina law provides general directions for county election officials to: (1) deliver to each precinct “the supplies, records and equipment necessary for the conduct of the election”; (2) ensure that adequate procedures are in place for a fair election; (3) respond to questions and problems where necessary; and (4) “provide adequate technical support for the voting system.”³⁰⁰

All of the counties surveyed confirmed that they have contingency plans in place in the event of machine failure.³⁰¹ One of the DRE counties reported that the county “packs precinct tubs with office supplies, forms, [and] sample ballots,” and delivers them to the precincts with the voting machines, and in addition that vendor-supported technical assistance “based from the [Board of Elections] can be dispatched to any precinct in the county that may have problems whether technical or [related to] supply needs.”³⁰² Another reported that it “utilizes Election Day Rovers who are a specially trained group (of 8) from the IT department,” and who help get the precincts running in the morning and “respond to each precinct's needs throughout the day.”³⁰³

An optical scan county, in which voters would still be able to vote if the machines failed, in any case also reported that it “has a trained staff of 6 who can assist from over the phone, along with [roving] technicians who have had equipment repair training,” and that “replacement voting machines are also available.”³⁰⁴ In addition, in that county, “[i]n the morning, when judges pick up their election supplies, they also receive a gray duffel bag that is stocked with everything they need to open the polls in the parking lot should the precinct polling place be locked, or otherwise unavailable, and the county “has outfitted a van stocked with election supplies which has the capacity to be a polling place in and of itself, should a polling become unusable.”³⁰⁵

Having paper ballots available at every polling place

The North Carolina Board of Elections has sent an advisory to every county on the need to have contingency plans in place. Counties that deploy DRE voting systems as the primary means of voting are advised to keep paper ballots for provisional and emergency use at the polling place. These counties are advised to order backup paper ballots “at a minimum rate equal to the highest number of voters that vote on Election Day in any four-hour time frame or 40% of the registered voters in the county.”³⁰⁶ As noted above, a DRE county surveyed confirmed that it delivers sample ballots to the polls with other supplies, and even the optical scan county surveyed is prepared to carry on elections if the polling place itself is unusable.

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

North Carolina recommends that emergency paper ballots be kept at the polling place, and allows deployment in the event that *any* machine fails. The North Carolina Administrative Code allows for deployment of emergency paper ballots in “extraordinary circumstances,” which may include “an inability to use another system, unavailability of another system, economic factors, existence of contested races, size of potential electorate, and integrity needs.”³⁰⁷

Making sure emergency paper ballots are available at the polling place in the event of long lines

Emergency paper ballots may be used at the discretion of the local election officials; there is no restriction on their use.³⁰⁸ In addition, as indicated above, emergency ballots may be used in “extraordinary circumstances,” which include the size of the potential electorate.³⁰⁹

One of the DRE counties surveyed reported that it does have emergency ballots available in the event of machine failure, and that precinct officials “can call into the office and be authorized to use paper ballots until such time that the voting equipment is up and running,” but that “[n]ormally, these ballots are used . . . strictly as a backup source in the event that our DRE equipment is not working.”³¹⁰ The other reported that “[p]aper ballots are only used in emergency circumstances.”³¹¹ The optical scan county confirmed that if the scanner malfunctions, voters simply continue to mark their paper ballots, which are deposited into a “a steel emergency ballot box,” and “[w]hen the machine is repaired or replaced, the Election Judges make an announcement that they are going to count the emergency ballots, and then run them through the machine.”³¹²

Treating emergency ballots as regular ballots, not subject to additional scrutiny

The provisions of the North Carolina statutes and administrative code that require the use of emergency ballots do not include protocols requiring that they be treated and counted as regular ballots not subject to additional scrutiny.³¹³

Recommendation: North Carolina requires two of the best practices and allows for two, and therefore North Carolina’s contingency plans are generally good but need improvement in specific areas. The advisory sent to counties by the North Carolina Board of Elections is excellent on the subject of requiring technical support in the event of machine failure and requiring emergency ballots at the polls. However, it is not mandatory. In addition, there should be a similar mandatory measures according to which county election officials should be required to deploy emergency ballots in the event of machine failure, and in the event that any machine fails, where insufficient machine allocation has led to long lines at the polls, and protocols should be added requiring that emergency ballots be treated and counted as regular ballots.

Ohio

Ohio uses VVPAT-equipped DREs in approximately half of its counties.³¹⁴ The contingency plans in Ohio are **excellent**.

Having procedures in place for machine repair or replacement in the event of failures

Ohio has procedures for the repair or replacement of voting machines in the event of malfunction. Although not explicitly an Election Day requirement, the Ohio Revised Code provides that a board of elections that experiences a significant problem with voting equipment shall report the problem to the Secretary of State or the Ohio Board of Voting Machine Examiners, which may require additional testing of the equipment or withdraw that equipment's certification.³¹⁵

Having paper ballots available at every polling place

Notwithstanding the foregoing, the Revised Code provides that "if during the time the polls are open additional ballots or supplies are required, the board of elections . . . shall supply them as speedily as possible."³¹⁶ All of the counties surveyed for the report confirmed that they do this,³¹⁷ and one added that it was simply "logical" and "law or not, that would be the practice."³¹⁸

In addition, a 2012 Directive from the Secretary of State confirms that, under a 2009 settlement agreement with the League of Women Voters, "the Secretary of State's office must require all county boards of elections using DRE voting machines . . . to distribute backup optical scan ballots 'in the event of long lines' and 'must offer paper ballots to voters in the event of machine problems or breakdowns.'"³¹⁹ All of the counties surveyed confirmed that they do this.³²⁰

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

As indicated above and elaborated on more fully below, Ohio not only allows for the use of emergency ballots if any machine fails, or in the event of long lines, it also allows for their use at the request of the voter even if the machines are functioning and there are no lines.

Making sure emergency paper ballots are available at the polling place in the event of long lines

Ohio requires emergency paper ballots to be kept at the polling place, and requires paper ballots to be used if there are long lines due to machine failure or inadequate allocation of machines.

The Secretary of State Directive (2012-04) noted above "does not require the Secretary of State or county boards of elections to give voters the 'paper or plastic' choice between casting a ballot on the DRE or by centrally counted, optical scan, paper ballots," but notes that "it is acceptable for a county board of elections to make the local decision to do so."³²¹ The counties surveyed had varying plans for 2012 on this subject. One county, which uses both optical scanners and DREs, reported that "DREs are for accessible use only.

Everybody else uses paper ballots on [optical scanners].³²² Another, which uses DREs, reported that it had not yet made a decision, and was awaiting guidance from the Secretary of State, but that the “[c]ounty’s preference in that matter would be to offer paper ballots on request” and that they would be counted by optical scanners.³²³ The third county, which also uses DREs, reported that it did intend to offer voters that choice, and would count the ballots on optical scanners.³²⁴ As already stated (*see* California, page 37, endnote 101), we do not endorse providing voters with this “paper or plastic” option at the polling place.

In addition, the Directive explicitly provides that “the Secretary of State’s office must require all county boards of elections using DRE voting machines . . . to distribute backup optical scan ballots ‘in the event of long lines.’”³²⁵

Treating emergency ballots as regular ballots, not subject to additional scrutiny

As indicated above, both of the DRE counties surveyed reported that they would count emergency ballots on optical scanners, and did not indicate that the ballot would be subject to any additional scrutiny.

Recommendation: Ohio requires four of the best practices and calls for the deployment of emergency ballots immediately upon machine failure, therefore Ohio’s contingency plans are excellent. No recommendation.

Pennsylvania

Pennsylvania uses paperless DREs in a majority of its counties.³²⁶ The contingency plans in Pennsylvania are **good**.

Having procedures in place for machine repair or replacement in the event of failures

Pennsylvania has procedures for the repair or replacement of voting machines in the event of malfunction. According to the Pennsylvania code, if any electronic voting system or any component of it becomes inoperable, it will be repaired or another machine will be substituted as promptly as possible.³²⁷ If repairs or substitution cannot be made, either printed or written ballots of any form can be used.³²⁸ All of the counties surveyed confirmed that this reflects actual practice,³²⁹ but one clarified that emergency ballots are not required to be distributed until 50% of the machines fail.³³⁰

Having paper ballots available at every polling place

Pennsylvania requires emergency paper ballots to be kept at the polling place in the event that 50% of electronic voting machines in a precinct are inoperable.³³¹ Both of the DRE counties surveyed confirmed this.³³² The 2009 directive issued by the Secretary of State on voting machines and discussed below cites the relevant code section and notes that the county boards of elections may use unvoted absentee ballots, alternative ballots, provisional ballots, emergency ballots designed specifically for emergency use or “other paper ballots that are either printed or written and of any suitable form.”³³³ Pennsylvania also requires that more ballots than registered voters must be printed.³³⁴ Election officials are statutorily required to issue 50 ballots for every 45 registered voters, and in addition the county board must maintain an additional supply in their office in case ballots are lost, destroyed or stolen.³³⁵

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

The Secretary of the Commonwealth issued a directive on April 28, 2009 entitled “Directive Concerning the Use, Implementation and Operation of Electronic Voting Systems By the County Boards of Election,” which reiterated the requirements of the Pennsylvania Election Code regarding the repair or substitution of inoperable voting machines. According to the 2009 directive, ‘if 50% of electronic voting machines in a precinct are inoperable, ‘paper ballots, either printed or written and of any suitable form,’ for registering votes (described herein as ‘emergency back-up paper ballots’) shall be distributed immediately to eligible voters” pursuant to the Election Code, and “[e]mergency back-up paper ballots shall be used thereafter until the county board of elections is able to make the necessary repairs to the machine(s) or is able to place into operation a suitable substitute machine(s).”³³⁶ This Directive replaced an earlier directive, issued just prior to the 2008 election, which had required that “**all**” voting machines would have to fail before emergency ballots could be provided.³³⁷ The earlier directive was successfully challenged in court, and at the end of October 2008 the District Court ruled that emergency ballots would have to be provided if 50% of the machines failed.³³⁸

Making sure emergency paper ballots are available at the polling place in the event of long lines

The directive calls for the deployment of emergency ballots based upon the percentage of machines that fail, not on the length of lines in the polling place or turnout. However, in March 2008 the Pennsylvania Commissioner of Elections and Legislation recommended, based on the code requirements cited above, that each election district receive ballots “equal to 20% of the number of registered electors of each party in each district.”³³⁹ The memo also noted that it is vital to have enough paper ballots available on location: “[m]aking sure that enough emergency paper ballots are available on location is important because, as you know, the majority of malfunctions are most likely to occur at the opening of the polls. This is also traditionally one of the busier periods of voting during the day. Ensuring that voting occurs uninterrupted during this critical timeframe, and until any malfunctions can be corrected, is extremely important.”³⁴⁰

Treating emergency ballots as regular ballots, not subject to additional scrutiny

Notably, the directive makes clear that provisional or absentee ballots used for emergency purposes are *not* to be subject to the same scrutiny and procedures as normal provisional or absentee ballots.³⁴¹ The directive states that “procedures applicable to the casting of absentee ballots, alternative ballots or provisional ballots (declaration and affidavit requirements) do not apply to an emergency back-up paper ballot that is cast under” the relevant section of the election code, but instead that emergency ballots shall be treated as “regular ballots” not subject to scrutiny before being counted.³⁴²

The 2009 Directive contains language stating that election officials “shall **not, at any time**, manually enter [emergency] absentee ballots into an electronic voting system,” and that “[t]he counting and recording of votes cast on [emergency] absentee ballots must be counted and recorded separately from but in a like or similar manner as the votes cast on electronic voting systems.”³⁴³ The counties surveyed reported varying practices with respect to the counting of emergency ballots. One reported that the ballots would be counted by the scanner at the precinct, if it was functioning when the polls closed, and that otherwise the ballots would be scanned at the elections office,³⁴⁴ and another reported similarly that emergency absentee ballots would be counted by “[s]canner, same way as absentee;” that county further clarified that if provisional ballots were used as emergency ballots, “[p]oll workers [would] hand write 'emergency' on the envelopes” and that those “[e]mergency ballots [would not be] subject to the same requirements as regular provisional ballots.”³⁴⁵ A third county reported that emergency absentee ballots are counted by hand.³⁴⁶

Recommendation: Pennsylvania requires three of the best practices, allows for one, and requires the deployment of paper ballots in the event that half of the machines fail, therefore Pennsylvania’s contingency plans are good. The requirement is mandatory and the directive states that emergency ballots must be counted as regular ballots on Election Day and not subject to the scrutiny of provisional or absentee ballots. The 2009 Directive on emergency ballots is an improvement over the directive issued and challenged in 2008, and Pennsylvania law should be amended explicitly to allow deployment of emergency paper ballots upon failure of *any* voting machines or where insufficient machine allocation has led to long lines at the polls.

South Carolina

South Carolina uses paperless DREs statewide.³⁴⁷ The contingency plans in South Carolina are **good**.

Having procedures in place for machine repair or replacement in the event of failures

South Carolina has procedures for the repair or replacement of voting machines in the event of malfunction. South Carolina law provides that if a voting machine becomes inoperative, poll workers must notify “the commissioners of election or other electoral board,” who are in charge of the election at the county level.³⁴⁸ The commissioners must attempt to provide a substitute machine for the polling place.³⁴⁹ The commissioners must also attempt to have the machines repaired.³⁵⁰

Having paper ballots available at every polling place

In the event of machine failure and if repairs or substitution are not possible, paper ballots “made as nearly as possible in the form of the official ballots”³⁵¹ may be used. State law provides that paper ballots “must” be provided where voting machines are used, but it limits the number of pre-printed ballots required to not more than 10% of registered voters at the polling place.³⁵² However, if the 10% is not enough, election managers “shall” provide voters with ballots “made as nearly as possible in the form of the official ballot.”³⁵³ Finally, the law requires that “failsafe ballots, or ballots containing only the races for federal, statewide, countywide and municipal-wide offices,” also “must” be provided at polling places.³⁵⁴ However, the quantity is limited to a maximum of 5% of registered voters at the polling place.³⁵⁵ Although the quantities are capped, providing none would violate the requirement that emergency or failsafe ballots “must” be provided.

All of the counties surveyed reported having emergency ballots available at the polls as required by law.³⁵⁶ One reported that voters would be given paper ballots if, for example, there was a power failure, or the machines were not turned on when voters arrived.³⁵⁷ Another reported that examples of circumstances under which emergency ballots would be used included the polling place not being fully open or “if not all the machines are working properly,”³⁵⁸ and a third reported that they would be used in the event of “machine failure.”³⁵⁹

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

Although some of the practices reported above suggest that election officials might not wait until all machines fail before deploying emergency ballots, the South Carolina elections code provides that emergency paper ballots may be used when “no other machine is available” to be substituted “for use at such election and the injured one cannot be repaired in time to continue” being used at the election.³⁶⁰

Making sure emergency paper ballots are available at the polling place in the event of long lines

The section of the code calling for the use of emergency ballots does not include provisions authorizing or calling for their use to alleviate long lines per se.

Treating emergency ballots as regular ballots, not subject to additional scrutiny

As noted above, election managers must provide voters with ballots “made as nearly as possible in the form of the official ballot,”³⁶¹ and the law requires that these ballots be treated the same as official ballots for election purposes.³⁶² Specifically, the law provides that when emergency ballots are used, they shall be “counted with the votes registered on the voting machine, and the result shall be declared as though there had been no accident to the voting machine.”³⁶³

Recommendation: South Carolina requires three of the best practices and allows for one, therefore the contingency plans in South Carolina are good. South Carolina has provisions for Repair or replacement of machines in the event of failure, and requires emergency ballots at the polls. The law restricts the number of official paper ballots allowed at the polling place to a maximum of 10% of registered voters and of failsafe ballots to a maximum of 5% of registered voters. Although the law allows for troubleshooting — creating and providing ballots “nearly in the form of the official ballot” — this must occur on Election Day. As discussed earlier in the report, in Horry County, during the January 2008 Republican primary, 80% of the machines could not be activated at the start of the day due to a programming error. Some of the precincts reportedly ran out of paper ballots and were sending voters to other precincts to cast provisional ballots.

It is not desirable to restrict election workers to providing only a certain number of official emergency and failsafe ballots *before* the election. While the law allows election workers to improvise on Election Day if there is a crisis, it should not prevent them from making adequate preparation before the election. South Carolina law should be changed to lift the restriction on the number of official emergency paper ballots that can be provided in the polling place on Election Day. In addition, the law should also be amended to provide explicitly that emergency ballots may be in the event that *any* machine fails, as is apparently allowed in practice, or to alleviate long lines.

Tennessee

Tennessee uses paperless DREs in all but two counties.³⁶⁴ The contingency plans in Tennessee are **generally good** but need improvement in specific areas.

Having procedures in place for machine repair or replacement in the event of failures

Tennessee has procedures for the repair or replacement of voting machines in the event of malfunction. Tennessee law dictates that if a machine fails, it “shall be repaired if possible or another machine substituted as promptly as possible.”³⁶⁵ If automatic vote counting machines are used and fail, ballots are placed in an auxiliary ballot box and when the polls close, they are inserted into a functioning machine or if no functioning machines are available, they may be hand counted.³⁶⁶ The Secretary of State confirmed all of the foregoing.³⁶⁷

Having paper ballots available at every polling place

Tennessee requires emergency paper ballots to be kept at the polling place.³⁶⁸ State law requires that if a malfunctioning machine cannot be repaired or substituted, “and other machines at the polling place cannot handle the voters,” paper ballots shall be used.³⁶⁹ If a polling place runs out of paper ballots, the elections officer in charge of the polling place must notify the county election commission.³⁷⁰ The commission must then provide any paper ballots they hold in reserve and have “such additional ballots prepared as may be necessary.”³⁷¹ In general, “[t]he Coordinator of Elections surveys the county election officials and researches historical voter data to determine the minimum number of ballots for each statewide election.”³⁷²

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

Tennessee allows for the deployment of paper ballots in the event of machine failure, subject to the conditions above. Although the code provides that if a (“any”) machine fails, and the remaining machines cannot handle the turnout, paper ballots “shall” be used, the Secretary of State did not confirm that paper ballots are deployed if “any” machine fails.³⁷³

Making sure emergency paper ballots are available at the polling place in the event of long lines

Tennessee state law recommends the use of paper ballots if a malfunctioning machine leads to long lines. Notably, the code reads, “if repair or substitution cannot be made and *other machines at the polling place cannot handle the voters*, the paper ballots provided for the polling place shall be used.”³⁷⁴

Treating emergency ballots as regular ballots, not subject to additional scrutiny

The foregoing provision in the Tennessee elections code does not state explicitly that emergency ballots are to be treated and counted as regular ballots.

Recommendation: Tennessee requires three of the best practices and allows for one, and therefore Tennessee's contingency plans are generally good, but need improvement in specific areas. Tennessee has procedures for the repair or replacement of voting machines in the event of malfunction, requires preparation and stocking of paper ballots at the polls, and requires the use of paper ballots to mitigate long lines at the polls when machines malfunction. However, to accommodate voter turnout, paper ballots should be required to be deployed if any machine fails, and should be required to be treated and counted like regular ballots. Counties should be required to develop secure strategies for deploying, collecting, storing and accounting for all emergency paper ballots prior to being counted.

Texas

Texas uses paperless DREs in approximately one-third of its counties.³⁷⁵ Texas contingency plans are **generally good**, but need improvement in specific areas.

Having procedures in place for machine repair or replacement in the event of failures

Texas has procedures for the repair or replacement of voting machines in the event of malfunction. The Secretary of State requires that each local jurisdiction have “[p]rocedures and plans . . . written for handling Election Day equipment failure, including backup and contingency plans.”³⁷⁶ As soon as a voting machine malfunctions, the presiding judge at the polling place must prevent further use of the machine and have it “promptly repaired or replaced if practicable.”³⁷⁷ There are several options if repair or replacement is not possible and the remaining machines are insufficient for orderly voting. Either in addition to, or instead of, the remaining equipment, the judge can allow the use of another voting system that has been adopted for use in the election, the use of regular paper ballots (such as those used in early voting), or having voters manually mark the electronic ballots which would have been used with the malfunctioning machines and processed as regular ballots.³⁷⁸

Having paper ballots available at every polling place

Texas does not require emergency paper ballots to be kept at the polling place, and emergency paper ballots may be used at the discretion of the county clerks and local election officials.³⁷⁹ There is no state-imposed restriction on their use, and counties vary in how they deploy them,³⁸⁰ but guidance from the Director of Elections “suggests” procedures for their use.³⁸¹

Contingency plans vary from one county to another. One of the counties surveyed (an optical scan county) reported that “if the tabulator is down, ballots will be counted by hand.”³⁸² Another county surveyed (a “hybrid” county using both optical scanners and VVPAT-equipped DREs) reported that it has six roving technicians, who fix minor problems like paper jams or replace machines entirely when needed, but otherwise retrieve vote totals from malfunctioning machines and then send the machines to the vendors for repair.³⁸³ In that county, when DREs malfunction, optical scan ballots are used for emergency purposes; if the ballots cannot be counted in the precinct, they will be counted centrally along with absentee ballots, or, in the “worst case,” they will be counted by hand.³⁸⁴ Another “hybrid” county surveyed (which uses Optical scanners and paperless DREs) also offers voters paper ballots when the DREs fail.³⁸⁵

In 2006, due to widespread failures of the delivery of ballots and/or programming of voting machines leading up to the May 13, 2006 elections, the Director of Elections authorized affected districts to create emergency ballots in advance of the election.³⁸⁶ That guidance was updated in 2010, and allows for the use of various sorts of emergency ballots in optical scan jurisdictions (including using early voting ballots, using a copier or copying ballots by hand, and allowing voters “to write their choices on a piece of paper using the sample ballot available at the polling place”) and DRE jurisdictions (including using “paper ballots [available] at the polling place [for] use in emergencies or for provisional voters,” making copies of the same and using procedures recommended for optical scan jurisdictions).³⁸⁷

One of the counties surveyed reported, with respect to the foregoing, that “[o]nly the paper ballots are valid,” and that “[i]f there is a write in candidate on the ballot, the [optical scanner] rejects the ballot, which [then] has to be counted by hand.”³⁸⁸ Another reported that, in the event of such an emergency, “[w]e would continue with the paper ballots” and “[i]f we ran out, then we would copy an emergency blank ballot [and] allow the voter use that ballot to mark his/her choice.”³⁸⁹

Given the ongoing need for guidance regarding emergency ballots, the relative lack of rigor in the 2010 guidance on that subject, and the fact that it has either lapsed or the counties are not necessarily following it in any case, we recommend that the state adopt rigorous statutory or regulatory requirements on the subject.

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

As indicated above, Texas allows for the deployment of paper ballots in the event that *any* voting machine fails. Malfunctioning machines are to be taken out of service “immediately after [it is discovered] that the equipment is not functioning properly,”³⁹⁰ and if repair or replacement is not possible and the remaining machines are insufficient for orderly voting, election officials may, “in addition to, or instead of, using remaining operational equipment,” deploy emergency paper ballots.³⁹¹

Making sure emergency paper ballots are available at the polling place in the event of long lines

The foregoing provision of the elections code authorizes election officials to deploy emergency paper ballots for the purpose of alleviating long lines.

Treating emergency ballots as regular ballots, not subject to additional scrutiny

The foregoing provision also provides that when emergency ballots are used, they shall be treated like regular ballots. In particular, it provides that in the event of machine failure, election officials have the option of “using regular paper ballots, whether early voting ballots or ballots for regular voting on Election Day,” or “having voters manually mark the electronic system ballots that were furnished for use with the malfunctioning equipment and having the ballots processed as regular paper ballots.”³⁹²

Recommendation: Texas requires two of the best practices and allows for two, and therefore contingency plans in Texas generally good, but need improvement in specific areas. Texas has provisions for the repair or replacement of machines in the event of failure, and in practice counties have emergency ballots available at the polls. In addition, Texas requires emergency ballots to be treated and counted as regular ballots. Texas should require that emergency paper ballots be deployed in the event that any machine fails, and where insufficient machine allocation has led to long lines at the polls. Counties should be required to develop secure strategies for deploying, collecting, storing and accounting for all emergency paper ballots prior to being counted.

Utah

Utah uses VVPAT-equipped DREs statewide.³⁹³ Contingency plans in Utah **need improvement**.

Having procedures in place for machine repair or replacement in the event of failures

Utah has procedures for the repair or replacement of voting machines in the event of malfunction. Utah state elections code requires election workers to repair or replace machines. According to the Utah code, if a poll worker reports that “voting devices or equipment do not appear to be functioning properly,” “[t]he election officer shall repair or provide substitute voting devices, equipment, or electronic ballots, if available.”³⁹⁴

All of the counties surveyed reported that they have contingency plans in the event of machine failure.³⁹⁵ One of those reported that in the event of machine failure, “Millard County has backups in each location,”³⁹⁶ and another reported that the county can “deploy other machines” but has “yet to experience machine failure on Election Day.”³⁹⁷ None of them were able to explain what was meant by substitute “electronic ballots.”³⁹⁸

Having paper ballots available at every polling place

Utah does not require emergency paper ballots to be kept at the polling place. According to the Utah code, if election officers are unable to repair or substitute the voting machine, they “may elect to provide paper ballots or ballot sheets.”³⁹⁹ Therefore, the provision of emergency paper ballots is optional. All of the counties surveyed reported that they have emergency ballots on hand and use them in the event of machine failure,⁴⁰⁰ although as noted above, one of them has never experienced a machine failure.

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

As noted above Utah does not require the use of emergency ballots in the first instance, and therefore does not have provisions concerning how many machines must fail before such ballots are deployed. One of the counties surveyed reported that if one machine fails, election officials will deploy a back-up machine, but “[i]f both machines go down, voters are would be allowed to vote on provisional ballots.”⁴⁰¹

Making sure emergency paper ballots are available at the polling place in the event of long lines

Utah has no requirement for the use of emergency ballots in the event of long lines. None of the counties surveyed reported deploying emergency ballots to alleviate long lines.⁴⁰²

Treating emergency ballots as regular ballots, not subject to additional scrutiny

As Utah has no emergency ballot requirement, it also has no requirement to treat and count emergency ballots as regular ballots. One of the counties surveyed reported that when emergency ballots are used, election officials “verify the authenticity of the voter,” and then the “provisional ballots (even in emergency situations) are counted.”⁴⁰³ Another similarly

reported that in the event of machine failure, election officials use provisional ballots, and “we can figure it out after the election . . . [t]he ballots are sealed in an envelope and we have a book [in which] we keep track of all paper ballots and provisional issued.”⁴⁰⁴

Recommendation: Utah requires one of the best practices and counties carry out another in practice, but Utah vets emergency ballots in practice rather than treating them and counting them as regular ballots. Therefore, Utah’s contingency plans need improvement. Utah has provisions for repair or replacement of machine in the event of failure, and counties have emergency paper ballots available at the precincts in practice. Utah should require that they be available at the polls, that they be deployed in the event that any machine fails, and that they be distributed where machine failure or insufficient machine allocation has led to long lines at the polls. Utah counties reported that in practice emergency ballots are subject to scrutiny rather than being counted and treated like regular ballots. If absentee or provisional ballots are used for this purpose, protocols should be established to ensure such ballots are counted and treated as regular ballots on Election Day. Counties should be required to develop secure strategies for deploying, collecting, storing and accounting for all emergency paper ballots prior to being counted.

Virginia

Virginia uses paperless DREs in almost three-fourths of its counties.⁴⁰⁵ The contingency plans in Virginia are **good**.

Having procedures in place for machine repair or replacement in the event of failures

Virginia has procedures for the repair or replacement of voting machines in the event of malfunction. Virginia law provides that if a voting machine becomes “inoperative,” poll workers are to contact the county electoral board.⁴⁰⁶ The board must, if possible, “dispatch a qualified technician to the polling place to repair the inoperative device.”⁴⁰⁷ If the machine cannot be repaired on site, the board must then, if possible, provide a substitute machine.⁴⁰⁸ The State Board of Elections reports that “[m]ost inoperable machines are properly shut down and replaced with working equipment.”⁴⁰⁹

Having paper ballots available at every polling place

In the event of machine failure, if no substitute machine is available, copies or reproductions of official paper ballots *may* be used and are to be treated as official ballots.⁴¹⁰ Although Virginia does not by law require emergency paper ballots to be provided in advance to polling places, copies of official paper ballots can be used when machines cannot be repaired, no substitute machines are available, the supply of official ballots or other ballots that can be cast without machines is inadequate, and the local electoral board approves.⁴¹¹ In addition, the State Board of Elections reports that it “has determined that each locality should have, at a minimum, emergency paper ballots available at the polls on Election Day equal to 10% of the current registered voter population in order to adequately address most emergency situations,” exclusive of any ballots designated as absentee ballots.⁴¹²

One DRE county surveyed reported that if one machine fails, voters would be sent to other machines, but “[i]f every machine went down . . . we would use emergency paper ballots,” which would be counted by hand at the close of the polls.⁴¹³ In addition, it confirmed that Board of Elections training materials provide that “copies of official paper ballots can be used when machines cannot be repaired, no substitute machines are available, the supply of official ballots or other ballots that can be cast without machines is inadequate, and the local electoral board approves.”⁴¹⁴

In optical scan jurisdictions, if no scanner is functioning voters can continue to vote and place their uncounted ballots in a special container for uncounted ballots.⁴¹⁵ If the machine is repaired on Election Day, these uncounted ballots are fed into the machine after the polls have closed and counted, but if no functioning machine is available, the ballots can be hand counted.⁴¹⁶ An optical scan county surveyed confirmed this.⁴¹⁷

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

The Virginia elections code allows election officials to deploy emergency ballots if *any* machine fails. As indicated above, the code provides that “[w]hen any voting or counting device becomes inoperative,” it must be repaired or replaced “if possible.”⁴¹⁸ However, if that is not possible, and “a substitute device is needed to conduct the election but is not

available for use,” “the supply of official paper ballots, or other official ballots that can be cast without use of the inoperative device, is not adequate,” and “the local electoral board approves, an officer of election may have copies of the official paper ballot reprinted or reproduced by photographic, electronic, or mechanical processes for use at the election.”⁴¹⁹

Making sure emergency paper ballots are available at the polling place in the event of long lines

The foregoing code section authorizes the use of emergency ballots if the supply of ballots “is not adequate,” and allows election officials to photocopy or otherwise produce additional ballots under those circumstances. Although the provision does not go so far as to authorize explicitly their use to alleviate long lines, election officials may have that flexibility.

Treating emergency ballots as regular ballots, not subject to additional scrutiny

The Virginia code explicitly provides that ballots used in the foregoing emergency circumstances shall be “counted with the votes registered on the voting or counting devices;” that “the result shall be declared the same as though no device has been inoperative;” and that “[t]he voted ballot copies shall be deemed official ballots.”⁴²⁰ They shall also be “preserved and returned with the statement of results and with a certificate setting forth how and why the same were voted,” and a statement of the number of copies made.⁴²¹ Two of the counties surveyed confirmed this.⁴²²

Recommendation: Virginia requires three of the best practices and therefore allows for two, therefore Virginia’s contingency plans are good. Virginia had provisions for the repair or replacement of machines in the event of failure, requires that emergency ballots be available at the precincts, and requires that emergency ballots be treated and counted like regular ballots. Emergency paper ballots should be required by law to be provided in the event that any machine fails, and also where insufficient machine allocation has led to long lines at the polls.

West Virginia

West Virginia uses VVPAT-equipped DREs in the majority of its counties.⁴²³ The contingency plans in West Virginia **need improvement**.

Having procedures in place for machine repair or replacement in the event of failures

West Virginia has procedures for the repair or replacement of voting machines in the event of malfunction. West Virginia law requires election commissioners to obtain a substitute machine from the county clerk should an electronic voting machine become inoperable during an election.⁴²⁴ Election commissioners are present at each polling station.⁴²⁵ The county commission is charged with acquiring as many substitute machines “as will be deemed necessary” in advance of the election.⁴²⁶

To comply with these mandates, all of the counties surveyed confirmed that they have procedures in place to repair or replace voting machines in the event of machine failure.⁴²⁷ A DRE county surveyed reported that “there are additional machines in the clerk’s office” and “[i]f a machine needs to be replaced, it will be pulled from Elections office and set up for the precinct.” In addition, that county “has 7 roving teams of 2 people (a Democrat and a Republican) who are trained to repair or reset the machines.”⁴²⁸ The other two counties surveyed use optical scanners as the primary voting system, but both also reported having backup machines available if needed,⁴²⁹ and one added that the county tries to repair machines first and “also utilizes Rovers who can attend to simple things like paper changes and the like.”⁴³⁰

Having paper ballots available at every polling place

West Virginia does not require emergency paper ballots to be kept at the polling place. However, the West Virginia Code does provide that “[i]f, for any reason, there should be found no ballots, or ballot box, or other necessary means or contrivances for voting, at the opening of the polls, it shall be the duty of the commissioners of election to secure the same as speedily as possible and, if necessary, the ballot commissioners may have ballots printed or written, and the election commissioners may have a ballot box or boxes made.”⁴³¹ In addition, any excess regular ballots are to be “packaged and delivered to the clerk of the county commission, who shall retain them unopened until they are required for an emergency.”⁴³² According to the Secretary of State, despite the lack of an explicit requirement to stock emergency ballots at the polls, many polling places do.⁴³³

The two optical scan counties have paper ballots on hand automatically, but the DRE county surveyed reported that it “does not have emergency paper ballots” on hand but that the DREs “are equipped with a battery backup that lasts for as much as 14 hours in the case of power failure.”⁴³⁴

Allowing emergency paper ballots to be deployed when *any* machine malfunctions

The West Virginia code does not require the use of emergency ballots and therefore does not require that they be used if “any” machine fails.

Making sure emergency paper ballots are available at the polling place in the event of long lines

The West Virginia code does not require the use of emergency ballots and therefore does not require that they be used to alleviate long lines.

Treating emergency ballots as regular ballots, not subject to additional scrutiny

The West Virginia code does not require the use of emergency ballots and therefore does not include protocols requiring that they be treated or counted like regular ballots.

Recommendation: West Virginia requires one of the best practices and allows for one, and therefore West Virginia's contingency plans need improvement. West Virginia has provisions for the repair or replacement of machines in the event of failure, but should require emergency ballots to be stocked at precincts, and to be deployed in the event that any voting machine fails or if insufficient machine allocations lead to long lines at the polls. In addition, if absentee or provisional ballots are used in emergencies, there should be protocols ensuring such ballots are counted and treated as regular ballots on Election Day and not subject to the additional scrutiny of provisional ballots or absentee ballots. Counties should be required to develop secure strategies for deploying, collecting, storing and accounting for all emergency paper ballots prior to their counting.

III. Paper Ballots for Military and Overseas Voters

For voters in the United States, jurisdictions are moving in the direction of recountable, auditable voting systems such as paper ballots that can be tallied by ballot scanners or counted by hand. However, most States now allow military and overseas voters to return voted ballots electronically, whether by facsimile, e-mail, Web portal, or a combination of those options. Both e-mailing voted ballots and transmitting them through a Web portal are forms of “Internet voting.” And with the proliferation of Internet fax services, we can presume that many voted ballots returned to election officials via fax have in fact been transmitted through the Internet. Internet voting thus can mean voting from an Internet browser in one’s personal computer, or by email attachment, or electronic fax, remote kiosk, or other means of remote electronic transmission. A voted ballot sent through the Internet is no more verifiable than a polling place ballot cast on a paperless direct-recording electronic voting machine – and in fact is exposed to a far greater number of security threats including cyber-attacks such as modification in transit, denial of service, spoofing, automated vote buying, and viral attacks on voter PCs.

In all, 32 states allow military and overseas voters to return ballots electronically. Yet 22 of these states require that voting systems at home use paper ballots or provide voter-verifiable paper records. We cannot overstate this fact: the technological reasons that 35 States have moved toward paper ballots or voter-verifiable paper records for all voters at home and 10 more provide them for voters in at least some counties also apply, with even greater urgency, to voted ballots returned to State and local election officials electronically from outside the country.

Of the 32 States that allow electronic return of voted ballots, only New Jersey requires military and overseas voters to return a paper ballot in addition to sending their ballots to election officials in electronic form. This option provides verifiability, provided that the paper ballot is the ballot of record for audits and recounts.

The challenges that absent military and overseas voters face in exercising the franchise have led in recent years to significant efforts toward improving the voting process for UOCAVA voters. “UOCAVA voters” refers to voters eligible to vote under the Uniformed and Overseas Citizens Absentee Voting Act of 1986.

The Military and Overseas Voter Empowerment (MOVE) Act of 2009, for example, made a number of critical positive changes to military and overseas voting. Under MOVE, election officials must provide ballots to military and overseas voters 45 days in advance of the election. Election officials must also make applications and blank ballots available electronically. Except for the issues raised by the remaking of ballots described below, this is an excellent provision that allows technology to expedite the voting process but does not endanger the verifiability of the election. In addition, the MOVE Act established a system through which absent military voters are able to return their voted ballots by expedited mail through the U.S. Postal Service for free.

Following enactment of MOVE, as states sought ways to meet new requirements for electronic delivery of ballots to voters deployed or living overseas, some states reached

beyond the requirements of the Act. These states started providing electronic channels for return of voted ballots *from* voters: fax, email and Internet portals for uploading of voted ballots, and in some cases “online mark and send.”

The States are under *no* Federal requirement to permit electronic return of voted ballots, but many do so despite the major security risks.

In addition, opportunity for error arises through the “remaking” of returned ballots, whether printed or electronic, onto optical scan ballots by election officials in order to insert the copies into the tabulating scanner. Ballots may be remade if the voter returns a printed and marked copy of an electronically received blank ballot, or if a completed ballot is returned electronically to election officials. In both cases the paper version of the “ballot” election officials receives or prints out currently cannot be scanned. There is little information about how widespread the practice of remaking electronically transmitted UOCAVA ballots is, and it may depend on how many UOCAVA voters vote in a given jurisdiction. The survey distributed to election officials did not include a question on this specific practice, although some states mentioned it in their responses.

Anecdotally, it has been suggested that election officials are “cautious about encouraging widespread use [of electronic transmission] due to [the] ballot remaking issue,”⁴³⁵ and (prior to enactment of the MOVE Act) that “[i]t is nearly impossible in large jurisdictions to remake all non-standard ballots on Election Day if that is required by [a] State.”⁴³⁶ Some states are considering alternatives to remaking UOCAVA ballots, through the use of non-human-readable QR or bar-codes. Such codes are imprinted on the voted ballot when a voter uses an “online ballot marking wizard” or program which transmits vote information to a remote server after a voter makes selections. The encoded ballot, when returned, is remade by scanning the barcode into a ballot-on-demand printer.⁴³⁷ Other states are considering methods that may or may not include the use of bar coding.⁴³⁸

As discussed in greater detail in the Ballot Accounting and Reconciliation section of the Report (Section V), the authors oppose the remaking of ballots, whether from domestic voters or overseas voters. Although states generally provide safeguards for the process (such as requiring bi-partisan teams to remake the ballots and/or preserving the originals), a ballot remade by election officials is no more “voter-verified” than a digital record stored inside a voting machine. The only voter-verified record of an individual’s vote is the one made by, or personally viewed by, the voter, and that should be the record that is counted. Electronically transmitted ballots should be counted manually.

The practices of the states concerning the use of Internet, facsimile and e-mail for UOCAVA voting are described below.

A number of states had already agreed to participate in two pilot Internet voting projects sponsored by the U.S. Department of Defense’s Federal Voting Assistance Program (FVAP) prior to the 2008 election. In the 2000 general election, South Carolina, two counties in Florida, and one county each in Texas and Utah participated in the Vote Over the Internet (VOI) Pilot Project.⁴³⁹ In that project, an uncontrolled transmission channel (referring to voters using their own computers at locations of their choosing, rather than a kiosk provided by election officials) was used; it was protected by a virtual private network (VPN), a secured

sockets layer (SSL) protocol and encryption, and user names, passwords and digital certificates were required for voter authentication.⁴⁴⁰ Eighty-four voters participated.⁴⁴¹

Having been instructed by Congress to carry out a more comprehensive demonstration project for the 2004 election, the FVAP developed the Secure Electronic Registration and Voting Experiment (SERVE) Project.⁴⁴² SERVE was targeted at all military and overseas voters; the states of Arkansas, Florida, Hawaii, North Carolina, South Carolina, Utah and Washington agreed to participate.⁴⁴³ SERVE used SSL to encrypt communications between the voter's web browser and the central computer running the voting application. SERVE also required a user name and password.⁴⁴⁴ SERVE was cancelled after a group of leading computer scientists with particular expertise in electronic voting systems published a report in January 2004 documenting risks, vulnerabilities and security concerns raised by the project.⁴⁴⁵

The authors of the SERVE report also published a follow up report in June 2007 describing the risks and vulnerabilities of the expanded use of facsimile and e-mail for the return of voted ballots.⁴⁴⁶ The 2007 report was in response to a letter from the Department of Defense to the Chairman of the Senate Armed Services Committee and other legislators in May 2007 describing the Department's plans for expanded use of e-mail and facsimile transmission of voting materials and ballots.⁴⁴⁷ Nonetheless, the Electronic Transmission Service (ETS) system, operated by the Federal Voting Assistance Program (FVAP) of the Department of Defense, is in use today by voters from an unknown number of states. Voters using this intermediary service are asked to sign the following statement: "I understand that by faxing or emailing my voted ballot I am voluntarily waiving my right to a secret ballot."⁴⁴⁸

In 2008 and since the last general election in 2010, there have been a number of developments around Internet voting. Some are described below:

- The National Institute of Standards and Technology (NIST) released a white paper entitled *Security Considerations for Remote Electronic UOCAVA Voting* (covering several forms of Internet voting) in 2011,⁴⁴⁹ and in 2012 summarized concerns from that (and prior) research.⁴⁵⁰ It concluded that (1) Internet voting from personal computers currently poses several risks extremely difficult to mitigate but commonplace on the Internet: risks to ballot secrecy, ballot security, and to theft of voters' authentication credentials; (2) remote electronic voter authentication is a difficult problem and any solutions may be hard or expensive to deploy; and (3) auditability of Internet voting is unlikely to match auditability of polling place voting.
- "Americans Elect" appeared on the scene in July 2011. Touting itself as "The First National Online Primary," the goal of Americans Elect was to provide an alternate choice to the traditional two parties for the President/Vice President ticket by holding primary votes over the Internet. Less than a year later, in May 2012, Americans Elect announced that no candidate had received enough "clicks" in enough states to qualify according to its bylaws. Critics were concerned with online security, among other things,⁴⁵¹ but the online primary of Americans Elect 2012 proved to be a test unraveled and then canceled. It is important to note, however,

that it was a privately-run venture that did result in Americans Elect securing a position on federal ballots as a placeholder for unnamed candidates.

- Democrats Abroad, “the official Democratic Party organization for the millions of Americans living outside the United States,” experimented with Internet voting in 2008, allowing voters to vote using Internet browsers on their personal computers.⁴⁵² The practice was criticized by computer security experts.⁴⁵³ Democrats Abroad amended the program in their 2012 primary, allowing ballots to be cast over the Internet by email attachment but not via internet browsers.⁴⁵⁴
- For 2012, several vendors offer systems for compliance with the MOVE Act and the Americans with Disabilities Act (ADA). These largely software-based products tend to offer sample ballots and voter guides, online voter registration, delivery of information and blank ballots, ballot tracking, and ballot-marking wizards. They include “LiveBallot,” offered by Democracy Live in partnership with Microsoft,⁴⁵⁵ Everyone Counts’ eLect Platform,⁴⁵⁶ and Scyt’s eBallot.⁴⁵⁷ Ballot marking wizards are of concern because they transmit information between the voter’s computer and a remote server over the Internet, as the voter marks his or her ballot online. This kind of proto-Internet voting enables voters’ personal information and their votes to be captured, transmitted to a remote server, and potentially stored and tabulated.⁴⁵⁸
- In March of 2012, top cyber security official Bruce McConnell at the Department of Homeland Security warned a group of election officials, academics and advocates that it is “premature to deploy Internet voting in real elections at this time,” citing the increased vulnerability of connecting voting systems to the Internet.⁴⁵⁹

BEST PRACTICES FOR RETURNING MILITARY AND OVERSEAS BALLOTS

Paper Ballot Required; Online Voting Not Allowed. Nineteen states explicitly require the return of the physical ballot that was marked and verified by the voter. This best practice circumvents the kinds of privacy and security risks to which electronic ballots are subject, and provides an auditable ballot. The authors support this best practice and encourage its use, along with expedited return services, to help ensure timely delivery of the voted ballot to election officials. These states received the highest rating of **excellent**.

Online Voting Allowed for Some UOCAVA Voters, with Restrictions. Six states permit electronic return by fax, e-mail, Web portal or a combination thereof for UOCAVA voters under certain specified conditions, e.g., military personnel deployed in a combat zone. Iowa’s statute governing electronic return of voted ballots states that to be eligible to return a ballots this way, a voter must be an active member of the military, merchant marine, coast guard or national guard, outside of the US or its territories, and be “located in an area designated as “imminent danger pay area” by the U.S. Department of Defense.”⁴⁶⁰ Limiting the use of online return of voted ballots recognizes that there are security and privacy risks inherent in electronic ballots; these states received a rating of **needs improvement**. If a state allows electronic return but requires the hard copy paper ballot also to be returned, it received a rating of **generally good**. Only one state, New Jersey, fell into this category.

Online Voting Allowed for All UOCAVA Voters. Twenty-five states allow electronic return by fax, e-mail, Web portal or combination thereof for all UOCAVA voters. As of this report, with the exception of Alaska, Louisiana and Nevada (with restrictions), which may allow any absentee voter to return a ballot by facsimile, there are no indications that any other state will allow — in Federal, state legislative, or statewide elections — electronic return of voted ballots from voters not eligible to vote under UOCAVA. Nonetheless, significant numbers of votes are rendered unauditable through the use of online voting, which also risks voter privacy; therefore these states receive an **inadequate** rating.

It is important to note that the authors' recommendations against the use of electronic transmission of any sort to return voted ballots may contradict guidance provided to the states from others to permit electronic return. In a previously-published *FVAP Legislative Initiatives Scoring Guide*, FVAP awarded points to the states for electronic transmission of blank ballots (6 points for e-mail or online transmission and 2 points for fax transmission), and electronic receipt of voted ballots without a requirement of hard copy return (3 points for e-mail or online transmission and 1 point for fax transmission).⁴⁶¹ The authors were pleased to note that in a post-2008 report, the FVAP reduced the points awarded for electronic return of voted ballots to 2 points for e-mail or online transmission and 1 point for fax transmission.⁴⁶² FVAP also almost doubled the points awarded for electronic transmission of blank ballots to voters, to 11 points for e-mail or online transmission and 3 points for fax transmission.⁴⁶³ While the authors fully support expedited and more convenient methods of transmitting ballots to UOCAVA voters, they feel that the problem of the remaking of electronically transmitted UOCAVA ballots must be resolved in a way that protects the integrity of and preserves for counting the voters' originally marked ballots. Electronically transmitted ballots should be manually counted.

RATING THE STATES

Nineteen states explicitly require the return of the physical ballot that was marked and verified by the voter. These states received the highest rating, **excellent**. Six states permit electronic return by fax, e-mail, Web portal or a combination thereof for UOCAVA voters under certain specified restrictions, e.g., only for military personnel deployed in a combat zone, and received a rating of **needs improvement**. One state allows electronic return by fax or email but requires the hard copy ballot to follow, and received a rating of **generally good**. Twenty-five allow electronic return by fax, e-mail, Web portal or combination thereof for all UOCAVA voters; these states receive an **inadequate**.

Voted Ballot Return for UOCAVA Voters

Legend:

- Inadequate
- Needs Improvement
- Generally Good
- Excellent

State	Category
Alaska	Needs Improvement
Alabama	Excellent
Arizona	Inadequate
Arkansas	Excellent
California	Inadequate
Colorado	Needs Improvement
Connecticut	Excellent
Delaware	Excellent
Florida	Inadequate
Georgia	Excellent
Hawaii	Needs Improvement
Idaho	Needs Improvement
Illinois	Excellent
Indiana	Inadequate
Iowa	Needs Improvement
Kansas	Inadequate
Kentucky	Excellent
Louisiana	Inadequate
Maine	Inadequate
Maryland	Excellent
Massachusetts	Excellent
Michigan	Excellent
Minnesota	Excellent
Mississippi	Inadequate
Missouri	Needs Improvement
Montana	Inadequate
Nebraska	Inadequate
Nevada	Inadequate
New Hampshire	Excellent
New Jersey	Generally Good
New Mexico	Inadequate
New York	Excellent
North Carolina	Inadequate
North Dakota	Inadequate
Ohio	Excellent
Oklahoma	Inadequate
Oregon	Inadequate
Pennsylvania	Excellent
Rhode Island	Excellent
South Carolina	Inadequate
South Dakota	Excellent
Tennessee	Excellent
Texas	Needs Improvement
Vermont	Excellent
Virginia	Excellent
Washington	Inadequate
West Virginia	Excellent
Wisconsin	Excellent
Wyoming	Inadequate

Voted Ballot Return Practices for UOCAVA Voters

Alabama	Excellent
Alaska	Inadequate
Arizona	Inadequate
Arkansas	Excellent
California	Inadequate
Colorado	Needs Improvement
Connecticut	Excellent
Delaware	Inadequate
D.C.	Inadequate
Florida	Inadequate
Georgia	Excellent
Hawaii	Needs Improvement
Idaho	Needs Improvement
Illinois	Excellent
Indiana	Inadequate
Iowa	Needs Improvement
Kansas	Inadequate
Kentucky	Excellent
Louisiana	Inadequate
Maine	Inadequate
Maryland	Excellent
Massachusetts	Inadequate
Michigan	Excellent
Minnesota	Excellent
Mississippi	Inadequate
Missouri	Needs Improvement

Montana	Inadequate
Nebraska	Inadequate
Nevada	Inadequate
New Hampshire	Excellent
New Jersey	Generally Good
New Mexico	Inadequate
New York	Excellent
North Carolina	Inadequate
North Dakota	Inadequate
Ohio	Excellent
Oklahoma	Inadequate
Oregon	Inadequate
Pennsylvania	Excellent
Rhode Island	Inadequate
South Carolina	Inadequate
South Dakota	Excellent
Tennessee	Excellent
Texas	Needs Improvement
Utah	Inadequate
Vermont	Excellent
Virginia	Excellent
Washington	Inadequate
West Virginia	Inadequate
Wisconsin	Excellent
Wyoming	Excellent

STATE PRACTICES IN DETAIL

Alabama

Alabama allows UOCAVA voters to receive blank ballots by e-mail and facsimile in elections for federal office only, and a signature is required if the ballot is to be received by facsimile.⁴⁶⁴ Ballots may also be “transmitted or accessed by other secure electronic means approved by rule of the Secretary of State.”⁴⁶⁵ According to the Alabama code, the absentee election manager and his or her staff are responsible for ensuring “the confidentiality of all voted ballots, including voted ballots received by facsimile.”⁴⁶⁶ According to the Federal Voting Assistance Program and Alabama’s online instructions for UOCAVA voters, completed ballots must be returned via mail or hand delivery.⁴⁶⁷ Because return of the hard copy paper ballot is required and electronic return is not allowed, Alabama received a rating of **excellent**.

In 2008, by executive order of the Governor, a task force was created for the purpose of developing a secure system through which absent military and overseas voters could vote over the Internet.⁴⁶⁸ According to the Secretary of State, legislation was enacted in 2010 on the authority of which a “secure web system to download ballots” was implemented.⁴⁶⁹ Since then, the Secretary’s office reports, Alabama does not distribute ballots by e-mail or facsimile, but rather “if [voters] don’t specify, then we mail [the ballot]. If they want an electronic version, we . . . send them an email telling them to go to the url at our web-based system to sign in and get a ballot.”⁴⁷⁰ The Secretary’s office further clarified that ballots are not received by e-mail or facsimile “unless there is a court order as there was in the primary . . . but that is not typical.”⁴⁷¹

Alaska

Any qualified Alaska voter may apply for an absentee ballot by mail, facsimile, scanning, or other electronic transmission.⁴⁷² The voter may request that the blank ballot be delivered to him or her by mail or facsimile, and in the absence of a statement of preference, the ballot will be mailed.⁴⁷³ An absentee ballot may be returned via facsimile.⁴⁷⁴ Alaska law provides that a voter returning his or her ballot by facsimile “assumes the risk [of] faulty electronic transmission.”⁴⁷⁵ Voters are, however, provided with instructions they must follow in order to maximize the privacy of their ballots,⁴⁷⁶ and procedures include the requirement that division of elections personnel remove the voted ballot from the portion of the transmission identifying the voter, and place the ballot in a secrecy sleeve before processing⁴⁷⁷ in the customary fashion. Because Alaska allows electronic return by fax for all UOCAVA voters, and even domestic voters, subjecting these ballots to security risks, rendering them unauditible, and compromising voter privacy, it received a rating of **inadequate**.

In addition, according to the Division of Elections, “Alaska is working to expand electronic transmission” options for the return of completed ballots to include method other than facsimile, “such as an electronic online service.”⁴⁷⁸ The expanded procedures will also not be restricted to UOCAVA voters, and voters will not be required or encouraged also to return a hard copy ballot.⁴⁷⁹

In 2000, the Alaska Republican Party conducted a pilot project in which voters were authorized to cast votes by way of an uncontrolled web application in a “non-binding presidential preference vote.”⁴⁸⁰ Although a pin number was required for participation, the Election Assistance Commission was unable to determine what security measures were used to protect transmission of the votes over the Internet.⁴⁸¹ 35 voters participated in the project.⁴⁸²

Arizona

Arizona allows UOCAVA voters to apply for ballots via mail, facsimile and the Internet.⁴⁸³ Such voters can designate the method by which they prefer to receive their blank ballots, which may be via Internet (“secure ballot upload system”), facsimile, other electronic means, or mail; in the absence of a stated preference the voter will receive the ballot by mail.⁴⁸⁴ Voters may return their completed ballots by mail, facsimile or Arizona’s secure ballot upload system.⁴⁸⁵ Because Arizona allows electronic return by fax, e-mail, Web portal or combination thereof for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

Two of the three counties surveyed reported using the secure ballot upload system.⁴⁸⁶ One of those reported that, in order to protect the privacy of such ballots, “[o]nly one person from the county opens the state website” where the ballots are uploaded, and that when voters also send their ballots back to the county via e-mail, they are “told to upload the ballot on the state site.”⁴⁸⁷ That county also reported that “[t]here were only 5-6 people who used the system last year, and 8-12 people this year.”⁴⁸⁸

Internet voting technology has been used on a pilot basis in three elections in Arizona: the 2000 Democratic Primary, the 2008 General Election and the 2010 General Election.⁴⁸⁹ In the 2000 Democratic Primary, voters were authorized to cast votes by way of an uncontrolled web application from anywhere in the world in a legally binding presidential primary.⁴⁹⁰ A pin number was required, and a secured website and administrative passwords were used to protect the transmission of votes over the Internet.⁴⁹¹ More than 39,000 voters participated.⁴⁹² In the 2008 and 2010 General Elections, a controlled web application was used, secured by an SSL cryptographic protocol, and user names, passwords and electronic signatures were also required.⁴⁹³ The Election Assistance Commission was unable to determine how many voters participated.⁴⁹⁴

Arkansas

Arkansas allows UOCAVA voters to submit their Federal Post Card Applications by mail, e-mail and facsimile, but does not allow them to receive their blank ballots by e-mail or facsimile.⁴⁹⁵ All completed ballots must be returned by mail.⁴⁹⁶ Both of the counties surveyed confirmed the foregoing.⁴⁹⁷ Because return of the hard copy paper ballot is required and electronic return is not allowed, Arkansas received a rating of **excellent**.

Arkansas had agreed to participate in the SERVE Project in 2004.

California

California allows UOCAVA voters to submit their Federal Post Card Applications by mail, e-mail and facsimile, and allows them to receive their blank ballots by mail or fax; in the absence of a stated preference they will receive their ballots by mail.⁴⁹⁸ Some counties also offer emailed or downloadable online blank ballots.⁴⁹⁹ California also allows such voters to return their completed ballots by mail or facsimile, and according to the Secretary of State's office, facsimile transmission is the only method of electronic transmission allowed for return of completed ballots by UOCAVA voters.⁵⁰⁰ Voters returning their ballots by facsimile are required to submit a signed oath waiving their rights to a secret ballot,⁵⁰¹ but notwithstanding the waiver, election officials are required to "adopt appropriate procedures to protect the secrecy of ballots returned by facsimile transmission."⁵⁰² Because California allows electronic return by facsimile for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

Although a military or overseas voter is permitted to return his or her voted ballot by facsimile transmission, such a voter is "encouraged to return his or her ballot by mail or in person if possible" and "should return a ballot by facsimile transmission only if doing so is necessary for the ballot to be received before the close of polls on Election Day."⁵⁰³

All of the counties surveyed confirmed that the foregoing reflects actual practice,⁵⁰⁴ however, Humboldt County reported that it will allow a signed oath waiving the voter's right to secrecy to be sent via email, though the completed ballot must still be sent by facsimile or regular mail.⁵⁰⁵ Orange County reported that "we may occasionally get someone who scans their ballot and tries to return by email, but we don't accept them," and when it happens, "[w]e will notify them that we can't accept it that way."⁵⁰⁶ With respect to offering downloadable ballots, San Mateo County plans to offer online blank ballots in the November general election.⁵⁰⁷ Orange County has already used a "UOCAVA wizard" through which voters may receive a ballot by e-mail, and reported that the county is "seeing a lot more interest from overseas" in the technology.⁵⁰⁸ It is important to note that Orange county processes all such ballots by duplicating them onto regular optical scan ballots after they are received, and that the county may duplicate as many as 4,000 to 5,000 regular absentee ballots in an election as well because of the number that are damaged when sent through the mail.⁵⁰⁹

As this report was going to press, the California Legislature was preparing to send to the Governor legislation that would authorize the use of "ballot marking systems" for special absentee voters, provided they are "not connected to a voting system at any time."⁵¹⁰ Unlike ballot marking wizards used in other states, this provision avoids online marking, thus skirting a number of privacy and security risks.

Colorado

Colorado allows UOCAVA voters to apply for and receive a ballot via mail, facsimile or e-mail or "if offered by the voter's jurisdiction, other electronic means."⁵¹¹ If no preference is designated, the voter will receive the ballot by mail.⁵¹² A voter who receives his or her ballot via electronic transmission may also return the ballot via electronic transmission in

circumstances where a more secure method, “such as returning the ballot by mail,” is not available or feasible.⁵¹³

In addition, according to the Secretary of State, “[a]ny elector, regardless of whether or not they are classified as UOCAVA, can vote and return a ballot via facsimile under ‘emergency ballot procedures.’”⁵¹⁴ Emergency ballot procedures “are instances where a condition arose after the last day to request a mail ballot, where a voter is unable to vote at his or her polling place on Election Day,” and under such circumstances, “[c]ounties must seek permission from the Secretary of State’s office to transmit emergency ballots by fax.”⁵¹⁵ Because Colorado allows electronic return of voted ballots but restricts the circumstances under which it is permitted and recognizes that there are security and privacy risks inherent in using electronic ballots, it received a rating of **needs improvement**.

Colorado has enacted legislation that, subject to available funding, provides for the development of a pilot program for Internet voting for overseas military personnel beginning with the 2012 general election.⁵¹⁶ Statutory language requires the system, among other things, to use encrypted data transmitted over a secure network, protect the privacy, anonymity and integrity of each voter’s ballot, prevent the casting of multiple ballots by any voter, protect against fraud, and provide “uninterrupted and reliable Internet availability,”⁵¹⁷ though it does not call for a public test of the system and it is not clear how these requirements are to be accomplished. The counties surveyed reported various practices with respect to the Internet pilot program. One reported that UOCAVA voters indicate their preferences prior to the election, and that “[i]t is possible to vote using internet.”⁵¹⁸ Another reported that it was not among the counties selected for the pilot but that the pilot would be conducted in the 2012 election,⁵¹⁹ and a third reported that “[w]e have just two overseas voters,” and therefore will not be participating in the pilot program.⁵²⁰

Connecticut

Connecticut allows any voter eligible to vote absentee to apply for an absentee ballot via mail, facsimile, e-mail or “other electronic means.”⁵²¹ Voters applying for a ballot by e-mail, facsimile or other electronic means must also return the original signed application by the close of polls on Election Day or the ballot won’t be counted.⁵²²

Connecticut complies with the MOVE Act by providing UOCAVA voters with a blank ballot by mail or “electronic means, as requested” by the voter; however, “if an application is made for an absentee ballot at the time of availability of regular absentee ballots (beginning 31 days before an election or 21 days before a primary), a regular absentee ballot should be provided.”⁵²³ If no preference is indicated, the voter will be mailed the ballot.⁵²⁴ If the ballot is received by electronic means, it must be returned with a signed certification in order to be counted.⁵²⁵ All absentee ballots must be returned by mail.⁵²⁶ All of the election officials surveyed confirmed the foregoing.⁵²⁷ Because return of the hard copy paper ballot is required and electronic return is not allowed, Connecticut received a rating of **excellent**.

In July 2011, Connecticut enacted a law that, subject to available appropriations, requires the Secretary of State to “recommend a method to allow for on-line voting by military personnel stationed out of state,” the Secretary of State’s office reported that “[t]his report was produced and the Secretary recommended against implementing such a system until a system

with sufficient security could be built and proven sufficient.”⁵²⁸ In May 2012, the Connecticut legislature passed a bill that would allow UOCAVA ballots to be returned by e-mail or fax, but the bill was vetoed by the Governor.⁵²⁹

Delaware

Delaware allows UOCAVA voters to apply for absentee ballots through the use of Federal Post Card Applications (FPCAs).⁵³⁰ These voters may request their ballots be sent by mail, facsimile or e-mail.⁵³¹ If no preference is indicated, the ballot will be mailed.⁵³²

If a UOCAVA voter receives a ballot through e-mail or facsimile, he or she may return it by traditional mail, facsimile or e-mail.⁵³³ All of the counties surveyed confirmed this practice.⁵³⁴ If returned by facsimile or e-mail, the voter must complete a cover sheet, including his or her name, voucher number (a six digit number sent with their ballot), e-mail address and phone number.⁵³⁵ If returned by e-mail, the voter must scan the coversheet, ballot and oath onto a computer and e-mail these documents to the Department of Elections.⁵³⁶ If returned by facsimile, the voter must fax the coversheet, completed ballot and signed oath to the Department of Elections.⁵³⁷ The voter may verify that his or her vote was received by checking their county Department of Elections’ website or by calling or e-mailing the county.⁵³⁸ Because Delaware allows electronic return by fax or e-mail for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditible, and compromising voter privacy, it received a rating of **inadequate**.

In upcoming elections, as part of Delaware’s participation in the Federal Voting Assistance Program’s Ballot Marking Wizard Program, voters will be able to receive ballots directly from a website and return them via e-mail or facsimile.⁵³⁹

District of Columbia

The District of Columbia allows UOCAVA voters to apply for and receive an absentee ballot by mail, e-mail or facsimile (the regulations use the general term “electronically”); if no preference is stated the ballot will be delivered by mail.⁵⁴⁰ Such voters may also return their completed ballots by mail, e-mail or facsimile, provided that if they return the ballots electronically they must also submit a signed statement acknowledging that they waive their right to a secret ballot.⁵⁴¹ An election official surveyed for the report confirmed the foregoing.⁵⁴² Because the District of Columbia allows electronic return by fax or e-mail for all UOCAVA voter, subjecting these ballots to security risks, rendering them unauditible, and compromising voter privacy, it received a rating of **inadequate**.

In September 2010, the District of Columbia unveiled an Internet voting pilot project, called “Digital Vote By Mail,” which was designed to allow military and overseas voters to download blank and return completed ballots over the Internet, and invited the scientific community to test the “system[s] integrity” prior to its actual use in the 2010 election.⁵⁴³ The project used a controlled web application and SSL and transport layer security (TLS) cryptographic protocols, and required the use of a PIN number.⁵⁴⁴ Within 36 hours of the system going live, a University of Michigan computer scientist and his team of graduate students had found and exploited a vulnerability that gave them almost total control over the server software, including the ability to change votes and reveal voters’ secret ballots.⁵⁴⁵ To

demonstrate their successful hack, the team left a “calling card” for test voters who completed voting: “[a]fter 15 seconds, the page plays the University of Michigan fight song.”⁵⁴⁶ As a result of the hack, the Board of Elections cancelled the project for 2010, issuing a statement that read, in part, “the District of Columbia’s Board of Elections and Ethics learned that its Digital Vote by Mail public examination software had developed an affinity for the maize and blue of the University of Michigan. Since no staff of the BOEE or our development partners . . . had attended the school, we reached the logical conclusion. Our public test had been hacked.”⁵⁴⁷

The authors join the University of Michigan team in commending the District of Columbia Board of Elections for conducting “exactly the kind of open, public testing that many of us in the e-voting security community . . . have been encouraging vendors and municipalities to conduct,”⁵⁴⁸ and further commend the Board for acknowledging that they “learned many valuable lessons about the security issues with the file upload mechanisms used in this software” and that “[t]he burden of proof will always rest with the election officials to ensure integrity and transparency of all voting systems.”⁵⁴⁹ The District of Columbia has pledged to continue to experiment to find a secure digital means for military and overseas voters to cast their ballots.⁵⁵⁰ An election official surveyed reported that the District of Columbia has no plans to allow return of completed ballots in 2012 other than by e-mail and facsimile as described above.⁵⁵¹

Florida

Florida allows UOCAVA voters to apply for blank ballots by telephone, mail, e-mail, facsimile, or any other form of written request.⁵⁵² Such voters may receive their blank ballots by mail, e-mail or facsimile, and if no preference is selected, they will receive them by mail.⁵⁵³ Such voters may also return their completed ballots by mail, facsimile transmission “or other secure remote electronic transmission,” but not by “regular electronic mail.”⁵⁵⁴ In accordance with a final rule governing military and overseas absentee ballots adopted in July 2012, Florida will not allow completed ballots to be returned by e-mail; voters who return their ballots by facsimile will be advised that by doing so they are waiving their right to a secret ballot.⁵⁵⁵ Only one of the counties surveyed confirmed that it accepts ballots returned from UOCAVA voters by e-mail in addition to facsimile.⁵⁵⁶ However, because Florida allows electronic return by fax for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditible, and compromising voter privacy, it received a rating of **inadequate**.

In the 2008 General Election, Okaloosa County conducted a pilot Internet voting project called the Okaloosa Distance Balloting Project.⁵⁵⁷ In the project, voting kiosks were set up in hotels in three overseas cities in which the U.S. has military installations: Mildenhall England, Ramstein Germany, and Kadena Japan.⁵⁵⁸ The project used a controlled data-transmission channel via proprietary kiosks, and the channel was protected by a VPN, SSL and “multiple layers of encryption and digitally signed data.”⁵⁵⁹ In-person photo identification and a digital certificate were also required.⁵⁶⁰ Ninety-three voters participated in the project.⁵⁶¹

Florida had also agreed to participate in the SERVE Project in 2004, and two Florida counties participated in the VOI Project in 2000.

Georgia

Georgia allows any absentee voter to apply for absentee ballots by mail, e-mail and facsimile,⁵⁶² and allows UOCAVA voters to receive their blank ballots by e-mail in addition to mail.⁵⁶³ If the voter states no preference, the ballots will be mailed.⁵⁶⁴ All completed absentee ballots must be returned by mail.⁵⁶⁵

The counties surveyed reported varying practices and understandings. One confirmed the foregoing, namely that blank ballots can be sent by e-mail to UOCAVA voters but must be returned by mail,⁵⁶⁶ and another reported that “one voter returned his ballot [electronically] via the Secretary of State.”⁵⁶⁷ However, the third reported generally that completed ballots could be returned by both e-mail and facsimile in addition to regular mail.⁵⁶⁸ Notwithstanding this one report, because return of the hard copy paper ballot is required by law and electronic return is not allowed, Georgia received a rating of **excellent**.

In 2010 Georgia enacted a law requiring the Secretary of State to “develop and implement a pilot program for the electronic transmission, receipt, and counting of absentee ballots” of UOCAVA voters.⁵⁶⁹ Statutory language requires the system, among other things, to use encrypted data transmitted over a secure network, protect the privacy, anonymity and integrity of each voter’s ballot, prevent the casting of multiple ballots by any voter, protect against fraud, provide “uninterrupted [system] reliability” for casting ballots, and provide the “ability to verify that the information transmitted over the secure network was not viewed or altered by sites that lie between the voting location and the vote counting destination,”⁵⁷⁰ though it does not call for a public test of the system and it is not clear how these requirements are to be accomplished. The pilot program is subject to appropriations and/or private, non-political funding,⁵⁷¹ and sunsets automatically on July 1 of the year following the conclusion of the pilot.⁵⁷² According to a representative from the Secretary of State’s office, Georgia has no current plans to implement the Internet voting pilot program.⁵⁷³

Hawaii

Hawaii allows UOCAVA voters to submit their Federal Post Card Application for a ballot by mail, e-mail or facsimile.⁵⁷⁴ Such voters may receive their blank ballots by mail or, if the voter did not receive the mailed ballot within five days of the election, the voter may request that his or her blank absentee ballot be forwarded by facsimile.⁵⁷⁵ Voters must return their completed ballots by mail, or, if they received the ballot by facsimile within 5 days before the election, by facsimile, but if the voter returns the ballot by facsimile he or she must also return a waiver of the right to a secret ballot.⁵⁷⁶ One of the counties surveyed reported that it does not allow completed ballots to be returned by facsimile.⁵⁷⁷ Because Hawaii allows electronic return of voted ballots but restricts the circumstances under which it is permitted and recognizes that there are security and privacy risks inherent in using electronic ballots, it received a rating of **needs improvement**.

In 2009, the City of Honolulu held its Neighborhood Board Election by way of an “all-digital voting system” that included the use of telephones and the Internet.⁵⁷⁸ Because the election was for Neighborhood Board members, Hawaii’s state election laws, which require a voter-verifiable paper audit trail, did not apply to the project.⁵⁷⁹ Although the Request for

Proposals required the system designer to “provide an alternative method of voting that ‘should be at least as safe as the all-paper method used in’” prior elections,⁵⁸⁰ the project used an uncontrolled web application protected only by SSL cryptographic protocols and the required use of a password, and otherwise allowed voters to vote from their home computers.⁵⁸¹ The Election Assistance Commission reported that 154,000 voters were registered for the project, but it was unable to determine the level of participation.⁵⁸² A representative of the Honolulu Neighborhood Board reported that in fact 156,000 voters were “registered,” but that that figure represents all voters “that are registered for either the primary or the general federal election. . . . Added to that number are any people who registered directly with the Neighborhood Board. Statistically speaking, Neighborhood Board elections generally have a low voter turnout, and in the case of the Neighborhood Election project, 13,264 votes were cast,” representing “approximately 8.5% of registered voters.”⁵⁸³

Hawaii also had agreed to participate in the SERVE Project in 2004.

Idaho

Idaho allows any absentee voter to apply for an absentee ballot by mail or “by using a facsimile machine or other electronic transmission.”⁵⁸⁴ All voters, including UOCAVA voters, may also receive their blank ballots by mail or by using facsimile or other electronic transmission, including e-mail.⁵⁸⁵ If UOCAVA voters do not express a preference, their ballots will be mailed.⁵⁸⁶ In addition, the Secretary of State is required to “establish procedures for transmitting such ballots in a manner that shall protect the security and integrity of such ballots and the privacy of the elector throughout the process of transmission.” All completed absentee ballots must be returned by mail,⁵⁸⁷ provided that in certain emergency circumstances the Secretary of State may allow the voter to return a completed ballot by facsimile or e-mail.⁵⁸⁸ The Secretary of State’s office reported that such a circumstance would be “very rare,”⁵⁸⁹ and all of the counties surveyed reported that they only accept completed ballots by mail,⁵⁹⁰ although two confirmed that they send blank ballots out electronically⁵⁹¹ and one of those reported that 2012 is the first year it had done that.⁵⁹² Because Idaho allows electronic return of voted ballots but restricts the circumstances under which it is permitted and recognizes that there are security and privacy risks inherent in using electronic ballots, it received a rating of **needs improvement**.

Illinois

Illinois allows UOCAVA voters to apply for and receive their blank absentee ballots by mail, e-mail or facsimile.⁵⁹³ According to the Federal Voting Assistance Program, such voters may also obtain blank ballots by way of a “secure ballot upload system.”⁵⁹⁴ If voters do not select a preference, their ballots will be mailed.⁵⁹⁵ Military and overseas voters must return their ballots by mail.⁵⁹⁶ The Board of Elections confirmed the foregoing.⁵⁹⁷ Because return of the hard copy paper ballot is required and electronic return is not allowed, Illinois received a rating of **excellent**.

Indiana

Indiana allows all absentee voters to apply for an absentee ballot by mail, e-mail and facsimile,⁵⁹⁸ and to receive their blank ballots by mail and by facsimile.⁵⁹⁹ In addition, UOCAVA voters may apply for their blank ballots by web application and receive them by e-mail,⁶⁰⁰ and may return their completed ballots by mail, facsimile, e-mail to their election officials, or e-mail to the Federal Voting Assistance Program with instructions to forward the email to their local election office.⁶⁰¹ Voters who return their ballots by e-mail or facsimile must also return a signed statement acknowledging that they understand that by faxing or e-mailing their voted ballots, they are voluntarily waiving their rights to a secret ballot.⁶⁰² In addition, the system must incorporate reasonable measures to protect the security, confidentiality, and integrity of personal information.⁶⁰³ Because Indiana allows electronic return by fax or e-mail for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

All of the counties reported that the foregoing reflects actual practice,⁶⁰⁴ but one clarified that the county “no longer goes through FVAP” but rather “e-mail[s] ballots directly to the voter” because “going through FVAP was a much slower process,” and that the absentee counting board “[does] all they can to protect the confidentiality and integrity of personal information” of UOCAVA voters.⁶⁰⁵

Iowa

Iowa allows all UOCAVA voters to apply for and receive blank ballots by mail, e-mail or facsimile.⁶⁰⁶ Voters who do not express a preference will receive their ballots by mail.⁶⁰⁷ All UOCAVA voters must return their completed ballots by mail, except for military and overseas voters located in an “imminent danger pay” area, who may return their ballots by email or facsimile.⁶⁰⁸ Voters who qualify for and choose to return a ballot by email or facsimile must “sign a form, provided by the county auditor, which affirms they are located in an imminent danger pay area.”⁶⁰⁹ The form also informs the voter that by casting a vote electronically, he or she has waived the “right to a secret ballot.”⁶¹⁰ All of the counties surveyed confirmed that the foregoing reflects actual practice.⁶¹¹ Because Iowa allows electronic return of voted ballots but restricts the circumstances under which it is permitted and recognizes that there are security and privacy risks inherent in using electronic ballots, it received a rating of **needs improvement**.

Kansas

Kansas allows UOCAVA voters to apply for and receive blank ballots by mail, e-mail, facsimile “or other electronic method authorized by the Secretary of State.”⁶¹² If no preference is selected, Kansas will mail the ballot.⁶¹³ Such voters may also return their ballots by those methods, provided that if they choose to return the ballot by e-mail, facsimile or other electronic transmission method, they must include a signed statement saying “I understand that by faxing, emailing or electronically transmitting my voted ballot I am voluntarily waiving my right to a secret ballot.”⁶¹⁴ “Some counties also offer a ballot that you can mark online and print, then return by U.S. mail, fax or email.”⁶¹⁵ To the extent that electronic transmission methods are used, county election officials are required to keep

voted ballots “as confidential as practicable.”⁶¹⁶ All of the counties surveyed confirmed that the foregoing reflects actual practice,⁶¹⁷ but one clarified that it had never received an electronically transmitted ballot.⁶¹⁸ Because Kansas allows electronic return by fax, e-mail, or other electronic transmission for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

Kentucky

Kentucky allows UOCAVA voters to apply for and receive their blank ballots by mail, facsimile, and e-mail, through Kentucky’s “online wizard” web application.⁶¹⁹ If no preference is selected, such voters will receive their ballots by mail.⁶²⁰ All completed ballots must be returned by mail.⁶²¹ All of the counties surveyed confirmed the foregoing.⁶²² Because return of the hard copy paper ballot is required and electronic return is not allowed, Kentucky received a rating of **excellent**.

Louisiana

Louisiana allows all absentee voters to apply for an absentee ballot by “any means,” including mail and facsimile.⁶²³ Louisiana also allows any voter to receive and return a completed ballot by facsimile, provided the voter also submits a signed statement waiving his or her right to a secret ballot.⁶²⁴

Louisiana allows UOCAVA voters to apply for and also receive their blank ballots by mail, e-mail and facsimile.⁶²⁵ Such voters may return their completed ballots by mail or facsimile, provided that if they return them by facsimile, they must also include a signed statement waving their right to a secret ballot.⁶²⁶ The registrar and his or her staff are required to “take the steps necessary to keep the voted ballots received by facsimile as confidential as practicable.”⁶²⁷ In addition, the Secretary of State is required to “take all actions reasonably necessary to allow” UOCAVA voters to vote according to UOCAVA “or otherwise during a period of declared emergency, whether by mail, facsimile, or other means of transmission of the ballot, notwithstanding any provision of this Code to the contrary.”⁶²⁸ One of the parishes surveyed confirmed all of the foregoing.⁶²⁹ Because Louisiana allows electronic return by fax for all UOCAVA voters, and even allows it for domestic voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

Maine

Maine allows any absentee voter to apply for an absentee ballot in writing (submitted by mail, facsimile, immediate family member or third person), telephone or “electronic means authorized by the Secretary of State.”⁶³⁰ Maine also allows UOCAVA voters to apply for absentee ballots electronically as a scanned attachment to an e-mail, and to receive their blank ballots by mail, facsimile or electronically through the use of downloadable form accessible from a secure website.⁶³¹ If the voter does not express a preference, the ballot will be mailed.⁶³² All completed ballots must be returned by mail, except that UOCAVA voters may return their completed ballots electronically, as a scanned attachment to an email.⁶³³ E-mail return was previously limited to circumstances in which there was not sufficient time to

return the ballot and the voter had requested permission, but the Secretary of State's office reports that it provides "all UOCAVA voters with instructions on returning the ballot as a scanned attachment to an email, and they no longer have to request permission from our office before doing so."⁶³⁴ The election officials surveyed, all of whom are municipal officials, reported that the foregoing process is handled entirely by the Secretary of State;⁶³⁵ one added that "[t]he Secretary of State's office handles all aspects of that process including tabulation. The municipality only sees it as an absentee ballot in their precinct."⁶³⁶ Because Maine now allows unrestricted electronic return by e-mail for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditible, and compromising voter privacy, it received a rating of **inadequate**.

Maryland

Maryland allows any absentee voter to apply for and receive a blank absentee ballot by mail, e-mail or facsimile.⁶³⁷ Absentee ballot applications are also available through a website application.⁶³⁸ Voters will receive their ballots in the manner of their choosing, and if no preference is specified the ballot will be mailed or transmitted to the voter "by any other available means."⁶³⁹ All voters, however, including UOCAVA voters, must return their completed ballots by mail.⁶⁴⁰ All of the counties surveyed confirmed that the foregoing reflects actual practice,⁶⁴¹ and one added that "other available means" of transmitting blank ballots to voters refers to other authorized means such as e-mail.⁶⁴² Because return of the hard copy paper ballot is required and electronic return is not allowed, Maryland received a rating of **excellent**.

In 2011, the Takoma Park, MD Board of Elections considered implementing an online system which would enable absentee voters to cast their ballots online for the November, 2011 City election.⁶⁴³ However, the Board ultimately passed a resolution that halted the pilot project.⁶⁴⁴ It stated, in part, that: "the ballot of record for absentee ballots is the paper ballot, and we will not accept only the electronic record as a ballot vote."⁶⁴⁵

Massachusetts

Massachusetts allows UOCAVA voters to apply for and receive their blank absentee ballots by mail, e-mail and facsimile.⁶⁴⁶ If the voter does not express a preference, the ballot will be mailed.⁶⁴⁷ UOCAVA voters may also return their completed ballots by mail, e-mail or facsimile.⁶⁴⁸ All of the election officials surveyed confirmed the foregoing procedures, and noted in addition that voters who return their ballots by e-mail or facsimile must submit waivers acknowledging that their ballots will not be secret.⁶⁴⁹ Because Massachusetts allows electronic return by fax or e-mail for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditible, and compromising voter privacy, it received a rating of **inadequate**.

Michigan

Michigan allows UOCAVA voters to apply for and receive a blank ballot by mail, email or fax.⁶⁵⁰ For email ballots, PDFs of the ballot, voter signature certificate and voting instructions are created and sent to the voter's email address.⁶⁵¹ For fax ballots, copies of the

ballot, voter signature certificate and voting instructions are printed and faxed to the voter's fax number.⁶⁵² All completed ballots and signed voter signature certificates must be returned by mail.⁶⁵³ Any votes returned by fax or email will not be counted.⁶⁵⁴ Because return of the hard copy paper ballot is required and electronic return is not allowed, Michigan received a rating of **excellent**.

All of the counties surveyed confirmed that completed ballots must be returned by mail,⁶⁵⁵ but one reported that a UOCAVA voter had "asked for the first time to return a ballot by pdf at the township level."⁶⁵⁶

For all ballots sent by email or fax, the election official must verify that the signature on the certificate matches the signature on the application for an absentee ballot.⁶⁵⁷ If the signatures do not match, the ballot is rejected.⁶⁵⁸ If there is no signed certificate, the ballot is rejected.⁶⁵⁹ On Election Day, the ballot is delivered to the precinct or absent voter counting board in accordance with usual procedures.⁶⁶⁰

In 2004, the Michigan Democratic Party conducted a Presidential Primary via the Internet using an uncontrolled vote data return channel, a web application, and facsimile transmission.⁶⁶¹ The U.S. Election Assistance Commission was unable to determine what, if any, channel protection was used, but a PIN number and the voters' place and date of birth were required for voter authentication.⁶⁶² Reportedly more than 46,500 voters participated.⁶⁶³

Minnesota

Minnesota allows all absentee voters to apply for an absentee ballot by mail, e-mail or facsimile.⁶⁶⁴ Minnesota also allows UOCAVA voters to receive their blank ballots by mail, e-mail or facsimile, but if such voters opt to receive their ballots electronically the county auditor is not required to provide return postage.⁶⁶⁵ If no preference is selected, voters will receive their ballots by mail.⁶⁶⁶ All military and overseas voters must return their completed ballots by mail, package delivery service, or diplomatic pouch via U.S. Embassy or Consulate.⁶⁶⁷ Because return of the hard copy paper ballot is required and electronic return is not allowed, Minnesota received a rating of **excellent**.

All of the counties surveyed confirmed that the foregoing accurately describes actual practice,⁶⁶⁸ but one reported that even though not required to do so, it still provides return postage even when voters receive their ballots electronically.⁶⁶⁹

Mississippi

Mississippi allows any absentee voter to apply for an absentee ballot by mail or telephone.⁶⁷⁰ Mississippi also allows UOCAVA voters to apply for and receive their blank ballots by mail, e-mail and facsimile.⁶⁷¹ If the voter does not express a preference the ballot will be mailed.⁶⁷² Such voters may also return their completed ballots by mail, e-mail or facsimile.⁶⁷³ Completed ballots returned by facsimile or e-mail are not required to bear a signature.⁶⁷⁴ Access to such ballots upon return is restricted to the election officials who retrieve the e-mail or facsimile, and these officials are required to place the ballots in absentee ballot envelopes, and "have the duty to protect the secrecy of the ballot choices."⁶⁷⁵ Both of the

counties surveyed confirmed the foregoing.⁶⁷⁶ The Secretary of State clarified that “[f]or military and overseas voters, the FPCA requesting absentee ballots and the absentee ballots may be returned via facsimile” and that “[n]o other faxing of absentee ballot applications or absentee ballots is permissible,” but confirmed that “[a]ny citizen covered under [UOCAVA] who has been issued a Department of Defense ID can request an absentee ballot application and cast an absentee ballot by e-mail” and that “[a]ctive duty military personnel serving outside of the state of Mississippi may also receive and submit an application as well as an absentee ballot by e-mail.”⁶⁷⁷ Because Mississippi allows electronic return by fax or e-mail for UOCAVA voters, subjecting these ballots to security risks, rendering them unauditably, and compromising voter privacy, it received a rating of **inadequate**.

Missouri

Missouri allows all absentee voters to apply for an absentee ballot by mail or facsimile.⁶⁷⁸ Missouri allows UOCAVA voters to apply for and receive their blank ballots by mail, e-mail or facsimile.⁶⁷⁹ All absentee voters are required to return their completed ballots by mail, except that military voters in “hostile fire areas” as declared by the Secretary of State are permitted to return their marked ballots by mail, facsimile, or e-mail.⁶⁸⁰ Voters returning their completed ballots electronically are required to attach a signed cover letter to their ballots, which states that the voter’s “original mailed ballot will take precedence over any other ballot” the voter returns (by e-mail or facsimile) “if the original mailed ballot” is timely received.⁶⁸¹ The cover letter also includes an acknowledgement by the voter that by returning the ballot electronically the voter “is giving up some right to privacy,” and a statement of understanding that “election officials will do everything possible to safeguard the privacy” of the ballot.⁶⁸² Because Missouri allows electronic return of voted ballots but restricts the circumstances under which it is permitted and recognizes that there are security and privacy risks inherent in using electronic ballots, it received a rating of **needs improvement**.

All of the counties surveyed confirmed that the foregoing accurately describes actual practice,⁶⁸³ but one clarified that not all Missouri voters qualify to vote by absentee ballot.⁶⁸⁴

Montana

Montana allows UOCAVA voters to apply for and receive their blank ballots by mail, e-mail and facsimile.⁶⁸⁵ Such voters may also use Montana’s online Electronic Absentee System.⁶⁸⁶ If the voter does not express a preference the voter will receive the ballot by mail.”⁶⁸⁷ Military and overseas voters may also return their completed ballots by mail, e-mail and facsimile.⁶⁸⁸ The Secretary of State is required to adopt rules under which ballots returned electronically “will remain secret,” as required by the Montana constitution, and which “protect the accuracy, integrity, and secrecy of the process.”⁶⁸⁹ The Secretary of State indicates that no votes returned electronically are saved or stored on the electronic absentee system.⁶⁹⁰ Notwithstanding the foregoing, because Montana allows electronic return by fax or e-mail for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditably, and compromising voter privacy, it received a rating of **inadequate**.

All of the counties surveyed confirmed that the foregoing procedures are an accurate description of actual practice,⁶⁹¹ but one reported that it “is a small county and is not set up for sending or receiving ballots by e-mail or facsimile” and does not have “a secure fax

line.”⁶⁹² That county reported that it only sends and receives ballots by mail, and that “[t]his is true for most of Montana's smallest counties.”⁶⁹³ Another reported that “secure e-mail only” is the only method of e-mail transmission allowed, but in any case, that “[i]t has been two years since [her county] had to handle any ballots that way.”⁶⁹⁴ With respect to protecting the secrecy of the ballot, one county explained that “[w]hen they know a ballot is coming, someone is sent to retrieve it (if faxed) or print it (if emailed), put [it] into a ballot envelope and [seal and process it] with the rest of the ballots.”⁶⁹⁵

Nebraska

Nebraska allows all absentee voters to apply for an absentee ballot in person, by mail, e-mail or facsimile,⁶⁹⁶ to have their blank ballots mailed to them.⁶⁹⁷ Nebraska allows UOCAVA voters to apply for and receive their blank ballots “using any method of transmission authorized by the Secretary of State,”⁶⁹⁸ including mail, email and facsimile.⁶⁹⁹ When the UOCAVA voter does not express a preference and the email address was provided, the ballot will be e-mailed.⁷⁰⁰ Nebraska also allows completed ballots from military and overseas voters to be received “using any method of transmission authorized by the Secretary of State,” and completed ballots must be returned by the close of polls Election Day either in person, by agent, or the UOCAVA voter may contact the county election office to request that their ballot be returned by e-mail or facsimile.⁷⁰¹ The Secretary of State’s office reports that “[a]pproximately 1/3 of the UOCAVA ballots are returned electronically.”⁷⁰² Because Nebraska allows electronic return by fax, e-mail, or other electronic transmission for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditably, and compromising voter privacy, it received a rating of **inadequate**.

Nevada

Nevada allows all absentee voters to apply for and receive their blank ballots by mail or facsimile.⁷⁰³ Nevada also appears to allow all absentee voters to return their completed ballots by mail or facsimile,⁷⁰⁴ but the Secretary of State clarified that the referenced statute “will, in a limited circumstance, allow a clerk to send any voter an absentee ballot by fax only if the clerk initially failed to mail them a ballot” and “allows the return of the ballot by fax only if it was sent because the county clerk failed to initially mail it.”⁷⁰⁵ Two of the three counties surveyed reported that fax return is only allowed for UOCAVA voters,⁷⁰⁶ and the third reported that it “hasn’t had to use email or facsimile in the last 6 elections.”⁷⁰⁷

Nevada allows UOCAVA voters to apply for and receive their blank absentee ballots by mail, e-mail or facsimile.⁷⁰⁸ If no preference is selected, the voter will receive the ballot by mail.⁷⁰⁹ Military and overseas voters may also return their ballots by mail, e-mail or facsimile, but if they return them electronically, they must also send a signed statement “declaring that a material misstatement of fact in completing the document may be grounds for a conviction of perjury.”⁷¹⁰ Election officials are required to keep confidential e-mail addresses of voters who request to communicate by e-mail.⁷¹¹ All of the counties surveyed confirmed that the foregoing accurately describes actual practice with respect to UOCAVA voters.⁷¹² Because Nevada allows electronic return by fax or e-mail for all UOCAVA voters, and in some cases even allows it for domestic voters, subjecting these ballots to security risks, rendering them unauditably, and compromising voter privacy, it received a rating of **inadequate**.

New Hampshire

New Hampshire allows UOCAVA voters to submit a Federal Post Card Application for a ballot by mail, e-mail or facsimile, and to receive blank ballots by mail or “electronic transmission” (e-mail).⁷¹³ If no preference is selected the voter will receive the ballot by mail.⁷¹⁴ All completed ballots must be returned by mail.⁷¹⁵ Because return of the hard copy paper ballot is required and electronic return is not allowed, New Hampshire received a rating of **excellent**.

New Jersey

New Jersey allows UOCAVA voters to apply for and receive their blank ballots by mail, e-mail and facsimile.⁷¹⁶ These voters may also return their completed ballots by mail, e-mail or facsimile.⁷¹⁷ These ballots returned by electronic means shall only be considered valid if accompanied by a signed statement: “I understand that by transmitting by electronic means a copy of my voted ballot I am voluntarily waiving my right to a secret ballot” and “[a]t the same time, I pledge to place the original voted ballot in a secure envelope, together with any other required certification, and send the documents immediately by air mail to the appropriate county board of elections.”⁷¹⁸ The voter must air mail the original ballot to the appropriate county board of elections. If the electronic copy of the ballot does not “conform exactly with the particulars of the original voted ballot,” the matter will be referred to the Superintendent of Elections or the country prosecutor for investigation.⁷¹⁹ Election officials receiving ballots submitted electronically are required to “take all necessary precautions to preserve the security of the ballot materials and specifically shall ensure that the vote cast by a voter using a ballot transmitted by electronic means is not revealed, except to the extent necessary by law or judicial determination.”⁷²⁰ The Secretary of State’s office confirmed this process but clarified that “the Superintendent of Elections does not get involved with the counting, it goes to the Board of Elections. Not every county has a Superintendent of Elections.”⁷²¹ Because New Jersey allows electronic return but requires the hard copy paper ballot also to be returned, it received a rating of **generally good**.

New Mexico

New Mexico allows UOCAVA voters to apply for and receive their blank absentee ballots by mail, e-mail or facsimile.⁷²² If no preference is selected the voter will receive the ballot by mail.⁷²³ Military and overseas voters may also return their completed ballots by mail, e-mail or facsimile, provided that if the voter returns the ballot by electronic transmission, he or she must include in the transmission a signed statement confirming, under penalty of perjury, that he or she is waiving the right to a secret ballot.⁷²⁴ All of the counties surveyed confirmed that the foregoing reflects actual practice,⁷²⁵ and one reported that in the event e-mail is selected and the e-mail does not go through, election officials will “[go] so far as” to contact the parents of the UOCAVA voters to verify the contact information.⁷²⁶ Because New Mexico allows electronic return by fax or e-mail for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

New York

New York allows UOCAVA voters to apply for and receive blank ballots by mail, e-mail or facsimile.⁷²⁷ If no preference is selected, the ballot will be mailed.⁷²⁸ Regardless of the transmission method expressed by the voter, all original completed applications must be returned by mail, even if an electronic copy was already returned (a possibility acknowledged by the elections code),⁷²⁹ and all original completed ballots must be returned by mail.⁷³⁰ Because return of the hard copy paper ballot is required and electronic return is not allowed, New York received a rating of **excellent**.

All of the counties surveyed confirmed that the foregoing accurately describes actual practice.⁷³¹ One of them, in confirming that no electronic returns are allowed, added that “there would be no way to compare the signature, as well as no secure way of receiving ballots,”⁷³² and that if he ever received a faxed ballot with a signature he would call the State Board of Elections for instructions. In any case, the respondent reported that it has never happened.⁷³³

North Carolina

North Carolina allows UOCAVA voters to apply for and receive blank absentee ballots by mail, e-mail and facsimile.⁷³⁴ The elections code provides that if a jurisdiction offers it, the voter may receive the ballot by Internet delivery.⁷³⁵ If no preference is indicated, the voter will receive the ballot by mail.⁷³⁶ All of the counties surveyed confirmed that they offer to send ballots by Internet delivery.⁷³⁷ One reported that ballots are offered by Internet delivery Statewide, and that “almost no one has not stated a preference” and “[c]urrently 90% of UOCAVA absentee ballots [are] sent by email.”⁷³⁸ UOCAVA voters may also return their completed ballots by mail, e-mail or facsimile.⁷³⁹ Voters’ e-mail addresses are not to be treated as public records.⁷⁴⁰ Because North Carolina allows electronic return by fax or e-mail for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditale, and compromising voter privacy, it received a rating of **inadequate**.

North Carolina had also agreed to participate in the SERVE Project in 2004.

North Dakota

North Dakota allows UOCAVA voters to apply for and receive blank absentee ballots by mail, e-mail or facsimile.⁷⁴¹ If the voter does not make a selection, but provides an e-mail address, election officials will e-mail the ballot.⁷⁴² Military and overseas voters may also return their completed ballots by mail, e-mail or facsimile.⁷⁴³ Such voters may also, at their option, return their completed ballots through a portal system; the voter uses an online ballot marking wizard to make selections, then notifies the election official the ballot is available for retrieval. An election official then obtains the ballot through the online portal.⁷⁴⁴ Election officials are required to keep voters’ e-mail addresses confidential,⁷⁴⁵ and the Secretary of State is required to “develop standardized absentee-voting materials, including privacy and transmission envelopes and electronic equivalents” thereof.⁷⁴⁶ Because North Dakota allows electronic return by fax, e-mail, Web portal or combination thereof for all

UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

All of the counties surveyed confirmed that the foregoing procedures reflect actual practice,⁷⁴⁷ but one clarified that “with our new Voices system the ballot is not e-mailed,” rather, voters “are provided a link [through] which they can vote electronically on the server” instead of ballots being transmitted back and forth.⁷⁴⁸

Ohio

Ohio allows UOCAVA voters to apply for and receive their blank ballots by mail, e-mail or facsimile.⁷⁴⁹ If offered by the Secretary of State or the board of elections, such voters may apply for and receive their blank ballots through Internet delivery.⁷⁵⁰ If the voter does not express a preference, the voter will receive the ballot by mail.⁷⁵¹ All completed ballots must be returned by mail.⁷⁵² Because return of the hard copy paper ballot is required and electronic return is not allowed, Ohio received a rating of **excellent**.

The Secretary of State and two of the three counties surveyed confirmed that only hard copy returns are allowed,⁷⁵³ and the third county, although it agreed that it was “correct” that all ballots must be returned by mail, reported that “a hard copy of the facsimile or email has to be sent in, and when it is received, the original ballot that the email or facsimile was produced from is then remade accordingly, before being cast.”⁷⁵⁴ In other words, it is a hard copy that is returned by mail, but because the hard copy ballot was marked onto a fax or a printed e-mail, the ballot is re-made by election officials before being scanned.

Oklahoma

Oklahoma allows UOCAVA voters to apply for and receive blank ballots by mail, e-mail or fax, but if they do not indicate that their preference is e-mail or fax, they will receive the ballot by mail.⁷⁵⁵ Such voters may return their completed ballots by regular mail or fax, or by e-mailing them to the Federal Voting Assistance Program, which will then fax them to the appropriate local election official.⁷⁵⁶ According to the Oklahoma State Election Board, if voters return their ballot electronically, the state will encourage them also to return the hard copy original ballot.⁷⁵⁷

According to one county surveyed, if the county receives both a faxed ballot and a mailed ballot, the county has “procedures in place to ensure we are only counting a person’s returned ballot once.”⁷⁵⁸ The two other counties surveyed had very little experience with electronically returned ballots; one official reported that her county “never received a ballot by email or fax”⁷⁵⁹ and the other reported that “it’s been six years since they’ve had one emailed.”⁷⁶⁰ These two counties also were under the impression, notwithstanding the apparent prohibition of it noted above, that ballots were being, or were allowed to be, e-mailed directly to the elections boards.⁷⁶¹ One reported that when that happens, “[e]-mailed ballots go straight to the county where they are printed out by the election board,” and “one Republican and one Democrat mark a fresh ballot and run it through the machine.” None of the counties surveyed reported being aware of specific procedures by which voters who return a ballot electronically would be encouraged to return the hard copy.

Because Oklahoma allows electronic return by fax or e-mail for UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

Oregon

Oregon allows UOCAVA voters to apply for and receive their blank absentee ballots by mail, e-mail or facsimile.⁷⁶² If the voter does not express a preference the ballot will be mailed.⁷⁶³ All voters must return their completed ballots by mail, provided that voters serving in the U.S. Armed Forces or Merchant Marines, or discharged therefrom within the last 30 days, may also return their completed ballots by facsimile or e-mail.⁷⁶⁴ According to the Secretary of State and the counties surveyed, this right is available to all UOCAVA voters, not only military UOCAVA voters.⁷⁶⁵ Completed ballots returned by facsimile or e-mail must be accompanied by a Secret Ballot Waiver Form, in which the voter consents to having his or her right to a secret ballot waived.⁷⁶⁶ Although the Secretary of State's Elections Division website and the Federal Voting Assistance Program did not initially indicate that e-mail was a return option,⁷⁶⁷ the waiver form itself provides that ballots of qualified absent military voters may be returned by e-mail, subject to submission of the same signed waiver,⁷⁶⁸ and the Secretary of State confirms this.⁷⁶⁹ One of the counties surveyed reported that e-mail return was an option added in 2012.⁷⁷⁰ They all confirmed that the foregoing is an accurate description of actual practice.⁷⁷¹ Because Oregon allows electronic return by fax or e-mail for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

In July 2010, the Independent Party of Oregon conducted a statewide primary election using an uncontrolled Internet channel through which ballots could be cast online.⁷⁷² The U.S. Election Assistance Commission was unable to determine what sort of channel protection was provided, but Independent Party voters were assigned unique codes to log onto the system.⁷⁷³ An estimated 2,500 voters participated.⁷⁷⁴

Pennsylvania

Pennsylvania allows UOCAVA voters to apply for and receive their blank absentee ballots applications via mail, e-mail or facsimile, but requires that the original application also be returned by mail.⁷⁷⁵ If the mailed copy of the application isn't received prior to the election, the voted ballot will not be counted.⁷⁷⁶ If the voter does not express a preference with respect to how he or she wants to receive the ballot, the ballot will be mailed.⁷⁷⁷ All completed ballots must be returned by mail.⁷⁷⁸ According to the Secretary of State, "[t]he electronic transmission of a voted absentee ballot from the elector to the county board of elections would violate the Pennsylvania constitutional requirement for secrecy of the ballot" as well as "several sections of the Pennsylvania Election Code."⁷⁷⁹ Because return of the hard copy paper ballot is required and electronic return is not allowed, Pennsylvania received a rating of **excellent**.

Two of the counties surveyed confirmed that the foregoing reflects actual practice,⁷⁸⁰ and the third confirmed it in part but reported that the e-mail portal through which blank ballots may be applied for and delivered to UOCAVA voters "has never worked."⁷⁸¹

Rhode Island

Rhode Island allows UOCAVA voters to apply for their blank ballots by mail or by facsimile, and to receive blank ballots by mail, facsimile, or via download from a secure website.⁷⁸² If no preference is selected, the ballot will be mailed.⁷⁸³ According to the Secretary of State, if electronic transmission is requested, the ballot must be sent by both electronic means and mail service.⁷⁸⁴ Military and overseas voters may return their completed ballots by mail or facsimile,⁷⁸⁵ but if the ballot was sent to the voter via electronic means, after being voted upon it must be returned by electronic transmission.⁷⁸⁶ Although voters in such circumstances are not required to return the original ballot also, according to the Secretary of State, if a voter returns his or her ballot electronically, the voter “should also send their official ballot in the mail” and “[t]he State Board of Elections will count the [ballot] that they have in their possession at 9 p.m. on election night.”⁷⁸⁷ The Board of Elections confirmed this, and added that “[i]f the original ballot is mailed after a copy is faxed, the staff reconciles the ballots so only the original will be counted on Election Day. If the original is never returned, the electronically returned copy will be used instead.”⁷⁸⁸ Because Rhode Island allows electronic return by fax for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

South Carolina

South Carolina allows all absentee voters to apply for a blank absentee ballot by mail, e-mail or facsimile, but they will receive their blank ballots and must return them by mail.⁷⁸⁹ South Carolina allows UOCAVA voters to apply for and receive their blank ballots by mail, e-mail and facsimile.⁷⁹⁰ If the voter does not express a preference, the ballot will be mailed.⁷⁹¹ Military and overseas voters may return their completed ballots by mail, e-mail or facsimile.⁷⁹² Completed ballots that are returned by electronic transmission must include a signed waiver of the right to a secret ballot.⁷⁹³ All of the counties surveyed confirmed that the foregoing accurately describes actual practices in South Carolina,⁷⁹⁴ but one clarified that not all voters qualify to vote by absentee ballot.⁷⁹⁵ Because South Carolina allows electronic return by fax or e-mail for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

South Carolina participated in the VOI Project in 2000, and was the only State to participate statewide.⁷⁹⁶ South Carolina had also agreed to participate in the SERVE Project in 2004.

South Dakota

South Dakota allows UOCAVA voters to apply for a blank ballot by mail, e-mail, facsimile, or web portal, and to receive the blank ballot by mail, e-mail or web portal, but not facsimile.⁷⁹⁷ If the voter does not express a preference, or if the e-mail address provided does not work, the ballot will be mailed.⁷⁹⁸ All completed ballots must be returned by mail.⁷⁹⁹ All of the counties surveyed confirmed that the foregoing reflects actual practice.⁸⁰⁰ Because

return of the hard copy paper ballot is required and electronic return is not allowed, South Dakota received a rating of **excellent**.

Tennessee

Tennessee allows all absentee voters to apply for a blank absentee ballot by mail, e-mail or facsimile, but they will be mailed their ballots and must return them by mail.⁸⁰¹ Tennessee allows UOCAVA voters to apply for blank absentee ballots by mail, e-mail or facsimile, and to receive the blank ballots by mail or e-mail, but not facsimile.⁸⁰² If no preference is selected, the ballot will be mailed.⁸⁰³ All completed ballots must be returned by mail.⁸⁰⁴ The Secretary of State confirmed all of the foregoing.⁸⁰⁵ Because return of the hard copy paper ballot is required and electronic return is not allowed, Tennessee received a rating of **excellent**.

Texas

Texas allows all voters to apply for a blank absentee ballot by facsimile,⁸⁰⁶ but will only send them the blank ballot by mail,⁸⁰⁷ and the completed ballot must be returned by mail.⁸⁰⁸ One county surveyed reported that voters are expressly prohibited from returning absentee ballots by hand.⁸⁰⁹

Texas allows UOCAVA voters to apply for their blank ballots by mail, e-mail or facsimile.⁸¹⁰ The Secretary of State's website provides that the blank ballots can be mailed or e-mailed to such voters, but not faxed,⁸¹¹ while Federal Voting Assistance Program materials provide that blank ballots can be mailed to voters, but neither e-mailed nor faxed.⁸¹² Two counties surveyed clarified that both are essentially accurate, and that "[t]he distinction lies in whether the ballot was requested through [the Secretary of State], or through FVAP," and that the method of sending it to the voter depended on the method by which it was requested.⁸¹³ A third reported that it follows the rules promulgated by the Secretary of State.⁸¹⁴

Texas requires all completed absentee ballots to be returned by mail, provided that members of the armed forces on active duty and their family who are casting the ballot from "hostile fire" pay area, "imminent danger" pay area, or a declared "combat zone" may return their ballots by facsimile "or similar electronic means."⁸¹⁵ Because Texas allows electronic return of voted ballots but restricts the circumstances under which it is permitted and recognizes that there are security and privacy risks inherent in using electronic ballots, it received a rating of **needs improvement**.

According to the Secretary of State's website, such ballots may not be returned by e-mail under any circumstances.⁸¹⁶ In addition, according to two of the counties surveyed, completed ballots will only be accepted by facsimile if the ballot is returned through the FVAP, and the FVAP has verified that the voter is in fact sending the ballot from one of the above-mentioned areas.⁸¹⁷ One county surveyed reported that ballots received by facsimile are logged in, placed in absentee ballot envelopes, and then sent to be processed with other absentee ballots; procedurally, a "duplicate [of] the ballot is made on a clean ballot and run through the tabulator," but "[t]he fax [is] retained, and the number of the duplicate ballot is recorded."⁸¹⁸

When ballots are returned by facsimile, election officials are required to provide security for the transmission.⁸¹⁹ Notably, however, if the voter returns the ballot electronically before mailing it, it is the paper hard copy that will not be counted.⁸²⁰

There have been no recent attempts to allow Texans to vote over the Internet, except that astronauts who are in space during the early voting period and on Election Day can vote over the Internet.⁸²¹ These voters use NASA's electronic transmission program to receive ballots,⁸²² and by way of a secure line to Johnson Space Center, their votes are transmitted to their home counties.⁸²³ During the 2010 midterm election, three astronauts successfully voted from the International Space Station.⁸²⁴ One Texas county participated in the VOI Project in 2000.

Utah

Utah allows UOCAVA voters to apply for and receive blank absentee ballots by mail, e-mail or facsimile.⁸²⁵ If the jurisdiction offers it, such voters may also receive their blank ballots via Internet delivery.⁸²⁶ If the voter does not express a preference, the ballot will be mailed.⁸²⁷ UOCAVA voters can also return their completed ballots by mail, e-mail or facsimile, provided that if they return the ballots by electronic transmission they must include a statement acknowledging that by doing so they are waiving the right to a secret ballot.⁸²⁸ Election officials are required to treat voters' e-mail addresses as private records, to be used only for election purposes.⁸²⁹

All of the counties surveyed confirmed that the foregoing accurately describes actual practice,⁸³⁰ but one added that in 2012 the county will be carrying out a program with Everyone Counts, through which "we give [the company] our UOCAVA voters [list], they contact them and send them to a personalized website where they login with their personal info such as drivers' license number to get a ballot;" the voters then "mark the ballot on the computer but they have to print it and scan, mail or fax it. It is not Internet voting because they have to print it out."⁸³¹ Because Utah allows electronic return by fax or e-mail for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

Utah does not currently allow voting over the Internet other than the methods described above, but legislation has been passed allowing counties, if selected by the Department of Defense, to participate in any pilot program for military or overseas voters to register and vote online.⁸³² None of the counties surveyed reported having any plans to participate in an Internet voting pilot project in 2012.⁸³³

One Utah county participated in the VOI Project in 2000, and Utah had also agreed to participate in the SERVE Project in 2004.

Vermont

Vermont allows UOCAVA voters to apply for and receive their blank ballots by mail, telephone, e-mail or facsimile.⁸³⁴ If the voter does not express a preference, the ballot will be mailed.⁸³⁵ All completed ballots must be returned by mail, "sealed inside the Absentee Certificate envelope (with the voter's original signature)."⁸³⁶ Vermont does not currently

allow voting over the Internet or by return electronic transmission. Two of the town clerks surveyed confirmed that the foregoing accurately reflects actual practice,⁸³⁷ and one reported that it doesn't e-mail or fax ballots.⁸³⁸ Because return of the hard copy paper ballot is required and electronic return is not allowed, Vermont received a rating of **excellent**.

In March of 2010 the Secretary of State of Vermont publicly distanced herself from attempts to implement Internet voting and described current practices as being neither reliable nor secure.⁸³⁹

Virginia

Virginia allows all absentee voters to apply for a blank absentee ballot by mail, e-mail or facsimile,⁸⁴⁰ but election officials will only send the blank ballot to the voter by mail,⁸⁴¹ and the voter must return the completed ballot by mail.⁸⁴²

Virginia allows UOCAVA voters to apply for, and also receive, their blank ballots by mail, e-mail or facsimile.⁸⁴³ If the voter does not express a preference, the ballot will be mailed.⁸⁴⁴ As of January 2012, all completed ballot must be returned by mail; commercial delivery service is allowed but use of a courier is expressly prohibited, as is return by e-mail or facsimile.⁸⁴⁵ Virginia also requires a "Voter's Declaration/Affirmation" to be signed, dated and witnessed by an adult over 18, without which the "vote may not count."⁸⁴⁶ Because return of the hard copy paper ballot is required and electronic return is not allowed, Virginia received a rating of **excellent**.

Two of the counties surveyed confirmed the foregoing procedures, although with respect to voter preferences, one county said "[w]e try to bend over backwards to accommodate" UOCAVA voters, and "[i]f they call, we ask as a courtesy,"⁸⁴⁷ and another said that UOCAVA voters "are advised that e-mail will expedite the process."⁸⁴⁸ However, according to the State Board of Elections, proposed legislation pending in the 2012 General Assembly "may allow for electronic return of voted ballots by UOCAVA citizens" if it had been enacted,⁸⁴⁹ but the matter has been deferred until 2013.

Washington

According to the Secretary of State, Washington allows all voters to return their voted ballots electronically, provided they also return the original hard copy, and they must send in the hard copy before the ballot may be counted.⁸⁵⁰ Because Washington is a vote-by-mail state, theoretically, all voters could therefore return their ballots electronically, subject to the foregoing.

Washington allows UOCAVA voters to apply for and receive their blank absentee ballots by mail, e-mail or facsimile.⁸⁵¹ If the voter does not express a preference, or if the e-mail address provided does not work, the voter will be mailed the ballot.⁸⁵² Military and overseas voters, including non-active reservists, may also return their completed ballots by mail, e-mail or facsimile;⁸⁵³ unlike other voters, are neither encouraged nor required to return the hard copy.⁸⁵⁴ Voting materials provided with military and overseas ballots "must include instructions on how to return the ballot by fax, e-mail, or postal mail, including how to include the ballot privacy sheet between the declaration page and the ballot."⁸⁵⁵

All of the counties surveyed confirmed⁸⁵⁶ or indicated generally⁸⁵⁷ that the foregoing reflects actual practice. One confirmed in addition that the hard copy ballot is the official ballot, that “[t]he system tracks returns for a voter and prevents [ballots from being counted twice],” and that “if the hard copy comes in first and then an electronic ballot comes in, the electronic copy will not be accepted;”⁸⁵⁸ that said, “[w]hichever ballot is received first would be counted.”⁸⁵⁹ Another reported that when voters return their ballots electronically, “they are . . . sealed in [an] envelope and held until we receive the original. We tag them as such and then reconcile them. When the original does not come it is handed off to the Canvass Board and usually they will dis-allow the ballot.”⁸⁶⁰ Because Washington allows electronic return by fax or e-mail for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

In 2009 the Washington State legislature considered House Bill 1624, proposing a pilot program to allow Internet voting, but the bill did not pass.⁸⁶¹ However, one of the counties surveyed reported that “[t]here is a special elections website that the military and overseas votes go to,” and that election officials “print [voted ballots] off, put them in a sealed envelope, and then delete them [from the system] for privacy.”⁸⁶²

Washington had agreed to participate in the SERVE Project in 2004.

West Virginia

West Virginia allows UOCAVA voters to apply for and receive their blank absentee ballots by mail, e-mail or facsimile.⁸⁶³ If the voter does not express a preference, election officials will choose the method of transmission.⁸⁶⁴ Voters may also return their completed ballots by mail, e-mail or facsimile, but if a voter receives the blank ballot by electronic transmission, the voter is required to return the voted ballot using the same method of transmission, or by mail.⁸⁶⁵ Voters who use electronic transmission to receive or return their ballots are required to return their ballots with a signed privacy waiver.⁸⁶⁶ In addition, the Secretary of State is required to “enter into an agreement with the Federal Voting Assistance Program . . . to transmit the ballots to the county clerks at a time when two individuals of opposite political parties are available to process the received ballots.”⁸⁶⁷ Because West Virginia allows electronic return by fax or e-mail for all UOCAVA voters, subjecting these ballots to security risks, rendering them unauditable, and compromising voter privacy, it received a rating of **inadequate**.

All of the counties surveyed generally confirmed the foregoing, with some exceptions and clarifications. With respect to the voters not expressing a preference as to the method of transmission and election officials choosing one, two counties reported that the county would just mail the ballots,⁸⁶⁸ and one added that “it’s the safest method.”⁸⁶⁹ With respect to the method of return transmission, one of the counties reported that “so far [it] hasn’t sent any [ballots] by fax” and that “[t]he majority of absentee ballots are by mail.”⁸⁷⁰

West Virginia enacted a statute in 2009 to establish a pilot program for Internet voting.⁸⁷¹ In 2010, this pilot project was instituted for the primaries and the general election.⁸⁷² Eight counties allowed military and overseas voters to cast their ballots using an uncontrolled

transmission channel, electronic ballot return via web application, and e-mail and facsimile.”⁸⁷³ Security for this connection was provided by requiring voters to use a username and password,⁸⁷⁴ and having them send the ballot back through a “military-style encrypted connection,” but otherwise allowing them to vote using *any* computer.”⁸⁷⁵ In the primary 54 web-based votes were cast, and in the general election 125 web-based votes were cast.⁸⁷⁶

Statutory requirements for the system included, but were not limited to, requirements that the system “[alert] administrator of suspected efforts at fraud (including repeated guesses of passwords, excessive votes from a single PC);⁸⁷⁷ provide for secret balloting while “[providing] no way for anyone (even vendor employees) to determine how an individual voter voted;”⁸⁷⁸ and allow third parties to monitor the software while elections are ongoing.⁸⁷⁹

According to the Secretary of State, electronic return of ballots through the Internet will not be permitted in 2012.⁸⁸⁰

Wisconsin

Wisconsin allows all absentee voters to apply for blank absentee ballots by mail, e-mail or facsimile, provided that if they apply for the ballot electronically they must return the original signed application with the voted ballot by mail.⁸⁸¹ Wisconsin allows UOCAVA voters to apply for and, “if the elector is a military elector,” receive their blank ballots by e-mail or facsimile in addition to mail.⁸⁸² If no preference is selected, the voter will be mailed the ballot.⁸⁸³ All completed ballots must be returned by mail.⁸⁸⁴ All of the counties surveyed confirmed the foregoing, and confirmed in particular that voters who are overseas but not serving in the military cannot receive their ballots electronically.⁸⁸⁵ Because return of the hard copy paper ballot is required and electronic return is not allowed, Wisconsin received a rating of **excellent**.

Wisconsin issued a five year plan in 2009 that included calls to study several proposed changes to the way people vote in Wisconsin, including the expansion of voting to mail, phone, and the Internet.⁸⁸⁶ The plan notes that many of the proposed changes would need to be approved by the Legislature and Governor,⁸⁸⁷ which had not occurred as of the end of 2011.

Wyoming

Wyoming allows all absentee voters to apply for a blank absentee ballot by mail, phone or e-mail, but their blank ballots will be mailed to them and must be returned by mail.⁸⁸⁸ Wyoming allows UOCAVA voters to apply for a blank absentee ballot by mail, phone, e-mail or facsimile,⁸⁸⁹ but to receive their blank ballots only by mail.⁸⁹⁰ The State Election Director reported that all counties are required to send blank ballots to UOCAVA voters by e-mail if requested by the voter in addition to mail.⁸⁹¹ All absentee ballots are required to be returned by mail.⁸⁹² Because return of the hard copy paper ballot is required and electronic return is not allowed, Wyoming received a rating of **excellent**.

IV. POST-ELECTION AUDITS OF PAPER BALLOTS AND VOTER-VERIFIABLE PAPER RECORDS

As described in the first section of this report, most counties and states have voting systems that require the use of voter-marked paper ballots or produce voter-verifiable paper audit trails (VVPATs). These paper ballots and records, when used to audit electronic tallies, ensure the accuracy and integrity of the vote count. As described in the second section of this report, wherever DREs are used (and whether they are equipped with VVPATs or not), we recommend the use of emergency paper ballots whenever machines fail or long lines could result in disenfranchisement. Emergency paper ballots are a critical prerequisite to ensuring that voters can vote at all if DRE voting systems fail, and also provide auditable records of for votes that might otherwise have been unauditable.

In the third section of this report, we describe the increasing use of e-mail, facsimile and web portal for the return of voted ballots by UOCAVA, and in three states, other voters. That trend is undermining the advances made at the polling place to ensure that there will be a voter-marked paper ballot or at least a VVPAT for every vote cast. Whenever a voter-marked absentee ballot is returned electronically, the auditability, and therefore the accuracy, integrity and security of the vote count, is ever more severely compromised.

In all states, in virtually every election, it is predominantly or entirely the electronic tally from the voting machines that is used to aggregate the official totals (including voting machines that count absentee ballots). Even where there is a voter-marked paper ballot or at least a VVPAT for every vote cast by every voter, that paper is “not a panacea. If these paper records are not examined after the election, then their value is eliminated.”⁸⁹³ As the Brennan Center noted in its June 2006 study of electronic voting system security, *The Machinery of Democracy: Protecting Elections in an Electronic World*,⁸⁹⁴ voter-verifiable paper records will not prevent programming errors, software bugs or the introduction of malicious software into voting systems: “[i]f paper is to maximize the security and reliability of voting systems, it must be used to check, or ‘audit,’ the voting system’s electronic records.” This applies not only to paper ballots and voter verifiable paper records cast at polling places, and to domestic paper absentee ballots, but also to voter-marked paper UOCAVA ballots. Without those, it is impossible to confirm whether or not the corresponding electronic tallies reflect the will of the voters. In addition, it is important to note that when electronically transmitted UOCAVA ballots are re-made before counting, as discussed in Section III and again in Section V, that fact must be taken into account when using them to audit electronic tallies. The authors oppose remaking for the reasons discussed in the other sections, but at a minimum, the original voter-marked ballots should be preserved for use in the audit process.

BEST PRACTICES FOR POST-ELECTION AUDITS OF PAPER BALLOTS AND VOTER-VERIFIABLE PAPER RECORDS

In *Post-Election Audits: Restoring Trust in Elections*, the Brennan Center teamed with the Samuelson Law, Technology & Public Policy Clinic at Boalt Hall School of Law (UC Berkeley), as well as several election officials and leading academics (collectively, the “Audit Group”), to make several recommendations for conducting post-election audits. Many of

these recommendations are amplified in “Principles and Best Practices for Post-Election Audits,” which is available online at www.electionaudits.org/principles.

All states should look to statistical sampling methods tied to the margin of victory to improve their criteria for how many units to audit for more effective auditing. A well-designed audit can provide a large chance of correcting the outcome if it was wrong.⁸⁹⁵ Such risk-limiting audits are being piloted in California, Colorado and Ohio;⁸⁹⁶ Colorado law requires moving to risk-limiting audits by 2014. Currently only North Carolina legally requires the use of statistical methods in the selection process,⁸⁹⁷ while Oregon, New Mexico and New Jersey laws require taking the margin of victory into account when determining what percentage to audit.⁸⁹⁸ (New Jersey’s law is not yet implemented).⁸⁹⁹ Ten California counties conducted pilot risk-limiting audits recently.⁹⁰⁰ Among other state grants, the U.S. Election Assistance Commission awarded California \$230,000 in federal grant money to fund up to 20 such pilot audits following elections held in California counties throughout 2012.⁹⁰¹

The following steps are critical for a good audit:

- **Auditing All Ballots** Good audit protocols mandate that all categories of ballots – early and absentee ballots, UOCAVA ballots, regular and provisional ballots – be used to audit the corresponding cast vote records, electronic tallies and aggregation of results at the tally server level for accuracy.
- **Using Transparent and Random Selection Processes for All Auditing Procedures** Audits are much more likely to prevent fraud, and produce greater voter confidence in the results, if the ballots, machines or precincts to be audited are chosen in a truly random and transparent manner, observable by the public with sufficient notice.
- **Conducting in a Timely Manner** Audits should be conducted after unofficial results are announced but before results are finalized, so that if the audit reveals problems, official totals can be corrected.
- **Implementing Effective Procedures for Addressing Evidence of Fraud or Error** If audits are to have a real deterrent effect and catch widespread, systemic problems, jurisdictions must adopt clear procedures for dealing with audit discrepancies when they are found. Such procedures must ensure that outcome-changing errors are not ignored, otherwise vote tampering succeeds.
- **Encouraging Rigorous Chain of Custody Practices.** Audits of voter-verifiable paper records will deter attacks and identify problems only if states have implemented solid chain of custody and physical security practices that will allow them to make an accurate comparison of paper and electronic records.

The most compelling case for audits is the comparison of the 2008 Senate race in Minnesota and the 2006 Congressional race in the 13th Congressional District in Florida. As discussed above, on election night, based on the electronic tallies, Norm Coleman was reported to be the winner of the Minnesota Senate race. Only because Minnesota used paper ballot optical

scan systems statewide, and only because it actually hand counted (in both an audit and a recount) all of the almost 3 million paper ballots that were cast in the election could Minnesota determine the true winner of the election. Al Franken was eventually found to have won the race.

In stark contrast, in the 2006 Congressional race in Florida's 13th District, candidate Vern Buchanan was reportedly ahead of candidate Christine Jennings by 369 votes.⁹⁰² However, in Sarasota County, one of the five counties in the District, a staggering 18,000 votes were not recorded for the Congressional race. That was a higher under-vote rate (almost 13%) than in any of the other counties (in other counties, the highest under-vote rate was just under 6%, and the others were between 2% and 3%).⁹⁰³ Unlike Minnesota, however, in 2006 Sarasota County used paperless DREs.⁹⁰⁴ Therefore, there were no independent records of the votes cast in the polling places in that county. Some, including the U.S. Government Accountability Office, ultimately concluded that the under-vote was exclusively the result of a confusing touch screen ballot that caused voters to overlook the Congressional race.⁹⁰⁵ But because there was no evidence (paper ballots) that could be reviewed to confirm the intention of the voters, there was no way to dispute the electronic result. Following a lengthy legal battle Vern Buchanan was sworn in.

RATING THE STATES

States were given points toward a grade of “excellent,” “good” or “generally good” for audits that are (1) *robust* (examining more than just one or two contests), (2) *comprehensive* (auditing all types of systems/ballots, including military and overseas ballots), (3) *timely* (selection starts after initial count is published and completed before results are finalized) and (4) *transparent and random* (conducting an observably random selection of units to be audited, and of the audit count). States were also given credit for having statutory provisions that *trigger expansion* of the audit if unexplained discrepancies are found.

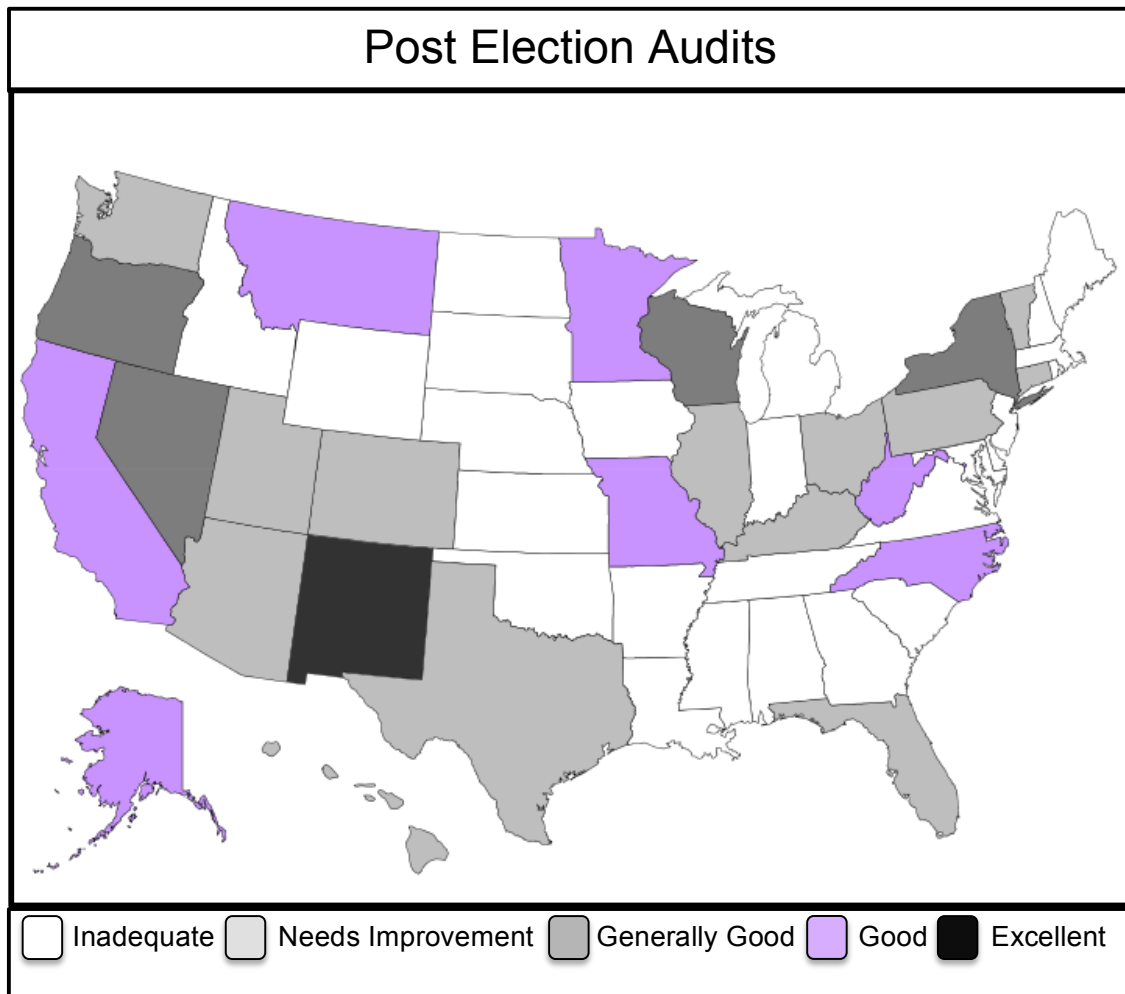
To achieve a grade of **excellent**, a state would have to require all of the foregoing, plus use or be moving toward risk-limiting audits. We give an extra half-point to those states “leaning toward risk-limiting audits” either by conducting pilots of risk-limiting audits or by *approximating* a risk-limiting approach in statute (e.g. New Mexico) and encourage such further development. New Mexico is the only state to receive an “Excellent” this time, showing substantive improvement over its 2008 ranking.

Points were subtracted for lack of transparency, incompleteness (that the audit cannot be — or is not required to be — conducted statewide), carrying out the random selection too early (prior to election night), or where there is no clear requirement to audit at a minimum the top-of-the-ticket contests (e.g. president, governor, etc.).

If a state had an insufficient number of positive points, or had sufficient points subtracted, it received a **needs improvement** grade. Where audit requirements are in place but cannot be conducted in all jurisdictions (e.g., where some counties or systems are paperless), those states were automatically given a “needs improvement” grade. Similarly, states where an audit will be conducted this November, but where there is no legal requirement to do so, are

to be commended for going beyond what the law requires but were also automatically given a “needs improvement” grade.

States given an **inadequate** ranking have no post-election audits planned for this November. Two of these states have passed audit laws, but they will not take effect this year (see New Jersey and Tennessee below).



Post-Election Audit Procedures

Alabama	Inadequate
Alaska	Good
Arizona	Needs Improvement
Arkansas	Inadequate
California	Good
Colorado	Needs Improvement
Connecticut	Needs Improvement
Delaware	Inadequate
D.C.	Good
Florida	Needs Improvement
Georgia	Inadequate
Hawaii	Needs Improvement
Idaho	Inadequate
Illinois	Needs Improvement
Indiana	Inadequate
Iowa	Inadequate
Kansas	Inadequate
Kentucky	Needs Improvement
Louisiana	Inadequate
Maine	Inadequate
Maryland	Inadequate
Massachusetts	Inadequate
Michigan	Inadequate
Minnesota	Good
Mississippi	Inadequate
Missouri	Good

Montana	Good
Nebraska	Inadequate
Nevada	Generally Good
New Hampshire	Inadequate
New Jersey	Inadequate
New Mexico	Excellent
New York	Generally Good
North Carolina	Good
North Dakota	Inadequate
Ohio	Needs Improvement
Oklahoma	Inadequate
Oregon	Generally Good
Pennsylvania	Needs Improvement
Rhode Island	Inadequate
South Carolina	Inadequate
South Dakota	Inadequate
Tennessee	Inadequate
Texas	Needs Improvement
Utah	Needs Improvement
Vermont	Needs Improvement
Virginia	Inadequate
Washington	Needs Improvement
West Virginia	Good
Wisconsin	Generally Good
Wyoming	Inadequate

STATE PRACTICES IN DETAIL

Details of requirements for every state that conducts audits can be found at verifiedvoting.org/audits and via the searchable database of audit laws found at ceimn.org. Below is a summary explanation for the states' rankings for post election audits.

Alabama

Alabama is rated **inadequate** because has no state requirement for conducting a post-election audit, despite having voter-marked paper ballots statewide.

Alaska

Alaska's provision received points for all the positive criteria except for risk limiting auditing; while rated as **good** it could improve on its transparency level by requiring in statute that audits be publicly observable at all phases.

Arizona

Arizona's audit, though otherwise good, depends on participation from the political parties and any given county. If both decline to participate, no audit takes place.⁹⁰⁶ Therefore Arizona' audit requirement **needs improvement**. One of the three counties surveyed reported that "[t]here is always a hand count after every election that is executed through the political parties."⁹⁰⁷ Another reported that "[e]very federal, state, and countywide election is audited" by the parties, by hand count.⁹⁰⁸

Arkansas

Arkansas is rated **inadequate** because it has no state requirement for conducting post election audits, despite having voter-marked paper ballots in most jurisdictions.

California

California, rated **good**, receives points for most of the positive criteria, but lacks a trigger provision in the current law. As noted above, however, California is conducting extensive risk-limiting audit pilots in many of its counties this year, and receives extra credit for doing so.

Colorado

Colorado enacted a random audit law in 2005,⁹⁰⁹ and a risk-limiting random audit law in 2009.⁹¹⁰ Some Colorado counties have conducted audits under the 2005 law,⁹¹¹ and all of the counties surveyed reported doing so.⁹¹² However, not all counties have done so. Moreover, two counties still use paperless DRE voting machines and therefore cannot conduct audits; for this reason, Colorado automatically receives a **needs improvement** ranking. As required by the 2009 law,⁹¹³ at least one pilot risk-limiting audit was conducted in 2010.⁹¹⁴ According to the Secretary of State, Colorado is "[preparing] for a risk-limiting post election audit pilot

to be instituted in 2012.”⁹¹⁵ Risk-limiting audits are required to be conducted in every county commencing with the General Election in 2014.⁹¹⁶ The U.S. Election Assistance Commission has awarded Colorado \$230,000 in federal grant funding to conduct pilot risk-limiting audits in five counties in a mix of urban, suburban and rural areas.⁹¹⁷

Connecticut

Connecticut has made improvements to its audit requirement since 2008, including the requirements for triggering additional audits when discrepancies are found; investigation of discrepancies by the Secretary of State is mandatory if “the margin of victory . . . is less than the amount of the discrepancy multiplied by the total number of voting districts” or if the discrepancy “could affect the outcome of the election.”⁹¹⁸ However the law still lacks clarity about which contests to audit, and is rated **needs improvement**. The law requires a manual audit in all elections, and at least ten percent of the voting districts involved in the election are to be selected at random for the audit.⁹¹⁹ The language still includes references to contests required to be audited by federal law,⁹²⁰ and no federal law currently requires states to audit. Thus, it is not guaranteed that top-of-the-ticket contests such as the presidential race will be audited. The law also does not explicitly include centrally counted ballots such as absentees,⁹²¹ but simply includes “all ballots that were counted by the voting tabulator at the selected polling places.”⁹²²

Delaware

Delaware is rated **inadequate** because it has no state requirement for conducting post election audits, nor auditable equipment in any jurisdiction.

District of Columbia

The District of Columbia enacted an audit law in 2010. It requires a manual audit of all ballots cast, including absentee ballots in one precinct per ward, or at least five percent of all election precincts (whichever number is greater), and five percent of ballots cast in early voting centers.⁹²³ According to the D.C. Board of Ethics and Elections, both optical scan ballots and VVPATs are included in the hand count audit, and “in practice they go beyond [the statutorily required] percentage.”⁹²⁴ The law requires that precincts to be audited shall be selected at random.⁹²⁵ The audit must be announced within three business days after the completion of the initial tabulation and must be conducted within 24 hours of the announcement.⁹²⁶ The executive director must issue a public report on the results of the manual audit before the certification of the official election results.⁹²⁷ The law has a clear procedure for dealing with discrepancies between the manual audit and the machine tally: if the discrepancy is greater than .25 percent of votes cast in the election or 20 percent of the margin of victory (whichever is less), and that discrepancy is not attributed to marking errors, then a second manual audit is conducted.⁹²⁸ If the second manual audit confirms the discrepancy, another precinct in each ward in which the contest appeared on the ballot is selected at random and audited.⁹²⁹ If the additional precincts audited confirm the discrepancy, the Board of Elections must then audit all ballots cast in the election.⁹³⁰ The District of Columbia received points for all the positive criteria, for a ranking of **good**, a significant improvement since 2008.

Florida

Florida's audit law is far from robust, and is rated **needs improvement**. It is public and transparent, random selection procedures are used, and under rules adopted in 2008 it appears that more than one contest may be audited in a randomly selected election.⁹³¹ However, the law limits the auditing to no more than 2% of precincts in a district, and the audit takes place after the election results have already been certified.⁹³² Setting a minimum makes sense; prohibiting more expansive audits does not, and audits are only meaningful if they take place in time to ensure that the election results are accurate before they are certified. In addition, none of the votes cast on the paperless DREs still used for disability access can be audited.

Georgia

Georgia is rated **inadequate** because it has no state requirement for conducting post election audits, nor auditable equipment in any jurisdiction

Hawaii

Hawaii's audit provision, while flexible, lacks sufficient transparency and clear criteria about which contests to audit.⁹³³ One of the counties surveyed confirmed that the audits are conducted publicly.⁹³⁴ Hawaii is rated **needs improvement** because it received points for positive criteria in only three of the categories, and lost credit for transparency on the negative side. But it appears that it is left up to the individual counties to determine where and which elections to audit.

Idaho

Idaho is rated **inadequate** because it has no state requirement for conducting post election audits, despite having auditable systems in all jurisdictions statewide.

Illinois

Illinois' audit law, rated **needs improvement**, does not mandate that the count of the voter-verifiable paper records be manual. Where optical scanners are used, Illinois law provides that the "retabulation shall consist of counting the ballots which were originally counted and shall not involve any determination of which ballots were, in fact, properly counted."⁹³⁵ In DRE counties, the audit is conducted "by counting the votes marked on the permanent [voter verifiable] paper record of each ballot cast . . . and comparing the results of this count with the results" printed by the DRE; election "shall test count these votes either by hand or by using an automatic tabulating device other than" a DRE but that has been tested for accuracy and approved by the State.⁹³⁶ (In either case, however, "redundant counts" may be requested, which are for the purpose of verifying the original computer count by using compatible equipment or counting by hand."⁹³⁷) Selection of precincts or machines to be audited is done by the state board in one location for the entire state;⁹³⁸ as a result, while notice is given, it may be difficult for interested citizens to observe the selection process. Illinois can improve by moving to require that audits for voter-marked paper ballot systems

be more robust than simply a separate scan, by requiring specific steps in cases of discrepancies, by moving to risk-limiting audits, and by improving public observability, particularly of the selection process.

Indiana

Indiana, rated **inadequate**, does not have a mandatory requirement for routine automatic vote-tabulation audits, but it does include optional audit procedures for those counties using optically-scanned paper ballots.⁹³⁹ No similar provision for the auditing of a DRE exists, beyond the language of HAVA as adopted in Indiana.⁹⁴⁰ That language requires paper audit records but neither requires that they be voter-verifiable,⁹⁴¹ nor that they be audited.⁹⁴² In those counties using optically-scanned paper ballots, a candidate or party chairman must initiate an audit by filing a petition.⁹⁴³ Indiana Law delegates to a local county election board the authority for overseeing such requested audit,⁹⁴⁴ which then is to confirm the votes of “not more than five percent (5%) of the precincts or five (5) precincts, whichever is greater.”⁹⁴⁵

Iowa

Iowa is rated **inadequate** because it has no state requirement for conducting post election audits, despite having auditable systems in all jurisdictions statewide.

Kansas

Kansas is rated **inadequate** because it has no state requirement for conducting post election audits, despite having some auditable systems in many of its counties.

Kentucky

Kentucky receives an automatic **needs improvement** for not being able to conduct an audit on all systems statewide. Kentucky has had an audit law for decades, requiring that “[a]s part of the official canvass,” election officials shall “provide for a manual recount of randomly selected precincts representing three percent (3%) to five percent (5%) of the total ballots cast in each election.”⁹⁴⁶ The law also requires election officials to “[p]rovide a method for maintaining sufficient documents and records so that votes can be recounted,”⁹⁴⁷ and although approximately two-thirds of Kentucky counties use paper ballot optical scan voting equipment,⁹⁴⁸ the remainder of the state uses paperless DREs, which cannot be audited. One of the two optical scan counties surveyed confirmed conducting an audit during which an “accuracy team” and the “software provider” review the results together by “[going] through a checklist.”⁹⁴⁹ The DRE county surveyed reported that it was not familiar with the audit process. The official stated that “[t]here are two requirements that indirectly fulfill that function. First, every County Clerk is required to file an election report with the Grand Jury. Second, if a formal recount is requested the Circuit Court will conduct an independent tally of the votes.”⁹⁵⁰

Louisiana

Louisiana is rated **inadequate** because it has no state requirement for conducting post election audits, nor auditable equipment in any jurisdiction.

Maine

Maine is rated **inadequate** because it has no state requirement for conducting post election audits, despite having auditable systems in all jurisdictions statewide.

Maryland

Maryland is rated **inadequate** because it has no state requirement for conducting post election audits, nor auditable equipment in any jurisdiction.

Massachusetts

Massachusetts is rated **inadequate** because it presently has no state requirement for conducting post election audits, despite having auditable systems in all jurisdictions statewide. At the time of this writing, the Commonwealth had passed an audit requirement in one chamber of the legislature.

Michigan

Michigan is rated **inadequate** because it has no state requirement for conducting post election audits, despite having auditable systems in all jurisdictions statewide.

Minnesota

Minnesota's provision received points for all the positive criteria except for risk limiting auditing, and no deductions; it is rated as **good**.

Mississippi

Mississippi is rated **inadequate** because it has no state requirement for conducting post election audits, despite having auditable systems in most of its counties.

Missouri

Missouri has updated its audit requirements since this report was first published in 2008. The Missouri elections authority is now required by law manually to count the paper records from at least 5% of all precincts selected at random, with an absolute minimum of one precinct, up from 1% of precincts in 2008.⁹⁵¹ The manual recount team is also required to select all races in which the margin of victory between the two top candidates is equal to or less than .5% of the number of votes cast for the office or issue.⁹⁵² The random selection must be public, and at least 48 hours of advance notice of the location be provided.⁹⁵³ Missouri has also adopted a regulatory trigger provision that activates if the results of manual ballot recounts differ by more than 0.05% from the results of electronic counts.⁹⁵⁴ However,

since there is no specific procedure to resolve discrepancies, it is not clear that all precincts will use the same or equally accurate means to account for discrepancies.⁹⁵⁵ The audit is required to be completed before the election is certified, and one copy of the results of the audit is filed with public records of the election.⁹⁵⁶ The Secretary of State has provided each local election authority with a set of recommendations, entitled “Best Practices for Electronic Voting System Security,” which sets forth procedures and forms for chain of custody of voting machines and voting materials.⁹⁵⁷

Missouri’s requirement is **good**. To improve it should move toward risk-limiting audits, explicitly require all ballot types to be included (absentees, provisionals and polling place), and adopt specific, publicly observable procedures for addressing discrepancies revealed by operation of its trigger provision.⁹⁵⁸

Montana

In 2009, Montana enacted a law requiring mandatory post-election audits.⁹⁵⁹ Thus its 2008 rating has been changed from inadequate to **good**. Montana’s audit requirement incorporates most of the best practices noted above. The audit law is robust in that it requires the review of at least 5% of the precincts in each county, and the examination of the results for one state contest, one federal contest, one legislative contest, and one ballot issue, if any.⁹⁶⁰ The audit requirement is comprehensive, in that it requires all ballot types to be included for the precinct(s) and contest(s) included.⁹⁶¹

The audit requirement is also timely, in that the audit must be performed after unofficial results are released to the public, but before an official canvass is performed.⁹⁶² Ballots that are unreadable by a vote-counting machine cannot be included in the audit.⁹⁶³ But these ballots are reviewed by election judges and are hand-counted and included in vote totals, if valid.⁹⁶⁴ Audited precincts are randomly selected; advance notice of the audit is provided, and the audit procedure (including the unsealing and re-sealing of ballot boxes) is open to the public.⁹⁶⁵ If an audit in a particular county reveals a discrepancy of more than 0.5% or five ballots, whichever is greater, then three additional precincts within that county must be audited, and the audit results will serve as the official results.⁹⁶⁶

The Secretary of State has also issued a Ballot and Equipment Security Directive that outlines detailed chain of custody requirements, and provides tamper-resistant security seals to each county for use on tabulating equipment, other election equipment, and ballots.⁹⁶⁷

Nebraska

Nebraska is rated **inadequate** because it has no state requirement for conducting post election audits, despite having auditable systems in all jurisdictions statewide.

Nevada

Nevada’s requirement, though **generally good**, lacks a trigger provision and does not mandate that the count be manual (although manual audits are allowed).⁹⁶⁸ It also does not explicitly address any ballots not cast on DREs (such as absentee or provisional ballots).⁹⁶⁹ But, according to the Secretary of State, “provisional ballots cast on a DRE may be included

in this audit.”⁹⁷⁰ With respect to the lack of a trigger provision, the Secretary of State reported that while “[t]here is no provision for post election escalation,” it has not been needed because Nevada “has always had a 100% audit match post-election.”⁹⁷¹ We understand that to mean a discrepancy has never been discovered. The Secretary of State elaborated by saying while “we have not had to put into practice what happens if we receive less than a 100% audit [match],” if a discrepancy were discovered, “our practical response will be to investigate with both the clerk’s office, as well as the equipment vendor, to determine why a less than a 100% audit [match] happened.”

New Hampshire

New Hampshire is rated **inadequate** because it has no state requirement for conducting post election audits, despite having auditable systems in all jurisdictions statewide. It should be noted that New Hampshire often conducts statewide manual recounts, but an audit provision will assure regular checks on the voting system as a matter of course.

New Jersey

New Jersey’s law, which was to be effective in January 2008,⁹⁷² is in many ways one of the strongest passed in the country to date. However, neither the paper record requirement nor the audit law has been implemented,⁹⁷³ and there are no plans to do so in 2012. The Secretary of State’s office and the county surveyed for the report confirmed the foregoing. The county added that the law has not been implemented because “this requires an extra attachment from the vendor which creates the additional paper record and we do not have them.”⁹⁷⁴ Because the audit requirement has not been implemented, New Jersey is rated **inadequate**.

New Mexico

New Mexico is the only state to achieve a ranking of **excellent** this year, receiving marks in all positive criteria plus extra credit for approximating a risk-limiting approach in statute. The state implemented a 2% audit requirement for the first time in 2008.⁹⁷⁵ Subsequently, New Mexico implemented an extensive tiered audit requirement, which calls for a greater number of precincts to be audited the narrower the margin of victory; in addition, it calls for a “random sample [of precincts to] be chosen in a process that will ensure, with at least ninety percent probability for the selected offices, that faulty tabulators would be detected if they would change the outcome of the election for a selected office.”⁹⁷⁶ The Director of the Bureau of Elections confirmed that the new statute overrides the previous requirement and that related rules will be updated prior to the 2012 election.⁹⁷⁷

An auditor is required to select random samples of precincts within twelve days after election.⁹⁷⁸ Audits may be observed by county canvass observers appointed by each political party represented on the ballot, a candidate on the ballot or “an election related organization.”⁹⁷⁹ Audit results are released publicly.⁹⁸⁰ Recounts are publicly observable by “any person who desires to be present.”⁹⁸¹ New Mexico’s otherwise strong provision has a substantial allowable time gap between Election Day and commencement of the audits, but the state received extra credit for taking margins into account for the size of the audit

sample, and for seeking a high probability for detecting outcome changing error. We further approve of New Mexico's publicly observable recounts, and although we understand the audits to be observable as well, we recommend statutory language go beyond notification to the public of time and place of the audit to more explicitly allowing public observation of audits.

New York

New York enacted an audit law in 2005, but was not able to implement it until converting from lever machines to optical scanners in 2010. While the audit law and state regulations contain extensive criteria and procedures for escalating an audit, in practice New York state's election administration structure has impeded the intent of the audit and recount guidelines.

Under the audit law, after each general or special election, New York manually and randomly audits the votes cast on of 3% of all voting machines, and includes precinct-based as well as central count systems.⁹⁸² Current regulations require a second recount of the ballots on the machine in question if there is a difference of even one vote between the audit and the data provided by the district.⁹⁸³ Notably, however, New York's regulations also contain a provision that enables the bi-partisan board of elections to evaluate the discrepancies in order to determine whether or not to expand the audit. As a result this requires bi-partisan agreement between election officials to proceed with a full hand count, and for the hand count results to supersede the machine results, unless a court so orders. This can make it unlikely that a full hand count will be conducted; since the audit regulations have gone into effect, the courts have denied multiple recount requests -- even when the reported margin of victory was as small as a single vote and when the criteria in the regulations for expanding an audit have been met.

Once any discrepancy is confirmed, an expanded audit of 5% of all machines is required if the discrepancy would alter the results for any candidate, question, or proposal by at least 0.1%, or if at least 10% of the audited machines exhibit any discrepancy at all.⁹⁸⁴ The audit expands to an additional 5% of machines if the relevant discrepancy thresholds are still observed,⁹⁸⁵ and may extend to as much as 100% of the ballots.⁹⁸⁶ One of the counties surveyed reported that it had never experienced a discrepancy that required it to expand the audit beyond 3%.⁹⁸⁷ County boards of elections may choose to perform audits in addition to the minimum requirements.⁹⁸⁸

The audit procedures "are rigorous in the area of secure ballot and memory card transport and retention," and the audits are required to be conducted within 7 days after a primary and 15 days after a general election."⁹⁸⁹ Neither the audits nor the random selection are required to be performed in public; but candidates, parties and authorized independent organizations are allowed to observe.⁹⁹⁰

New York's provision receives a ranking of **generally good** and could improve with a true trigger provision that is not subject to the agreement of a bi-partisan board, as well as the implementation of a risk-limiting audit. Requiring the selection and the audit to be open to the public for observation would be an additional enhancement.

North Carolina

North Carolina's law is **good**, but needs improvement in a specific area. The statute requires auditing all ballots from precincts and early voting sites as well as absentee ballots. The selection process starts "after the initial count of election returns for that county is publicly released or 24 hours after the polls close on Election Day, whichever is earlier." The audit is usually completed during the canvass meeting; the selection is random and is conducted publicly, and the discovery of discrepancies triggers expansion.⁹⁹¹ However, the audit law only requires a single contest to be audited for each election.⁹⁹²

North Dakota

North Dakota is rated **inadequate** because it has no state requirement for conducting post election audits, despite having auditable systems in all jurisdictions statewide.

Ohio

Ohio received an automatic **needs improvement** score because the state does not have a statutory requirement for post-election audits. However, on February 24, 2012, the Ohio Secretary of State issued Permanent Directive 2012-12, which, in accordance with a court order, mandates publicly-viewable post-election audits on even-numbered years and following presidential primary elections.⁹⁹³ The audits may not be commenced until after results are certified.⁹⁹⁴ According to the Secretary of State, they "[m]ust be completed before the deadline for amending election returns."⁹⁹⁵ In addition, the Directive provides that "[i]f the post-election audit results in change of vote totals reported in the official canvass, the board shall amend its certification of the official results of the affected contest and submit it to the Secretary of State within the time limits set forth in this directive."⁹⁹⁶ We recommend that Ohio codify and add an audit requirement to the election code, and that audits be required to be conducted before results are certified; with these improvements Ohio's post-election audit score would rank as "Good."

Oklahoma

Oklahoma is rated **inadequate** because it has no state requirement for conducting post election audits, despite having auditable systems in all jurisdictions statewide.

Oregon

Oregon's otherwise strong provision, one of only a few in the country employing random selection criteria based on the margin of victory,⁹⁹⁷ was rated **generally good** due in part to a significant time gap between selection and audit. The length of that gap was increased yet further in 2009, from 20 days to 21 days,⁹⁹⁸ but according to the Secretary of State, "all discrepancies must be resolved prior to certifying the elections results."⁹⁹⁹ Although the county canvass is required to be completed no later than 20th day after the election, and the state canvass no later than the 30th,¹⁰⁰⁰ two of the counties surveyed reported that they complete the audit in accordance with the directives and time frame established by the

Secretary of State,¹⁰⁰¹ and one of those clarified that the county certifies its results first, then conducts the audit, and discrepancies are required to be resolved (and amended county returns filed if necessary) before the state certifies its results.¹⁰⁰² The selection process, while public, is conducted centrally, which may limit the extent to which it would be observable by those who may not be able to travel to a central location for that purpose.¹⁰⁰³

Pennsylvania

Pennsylvania automatically receives a **needs improvement** because audits are not possible in all jurisdictions statewide. The Commonwealth has had an audit law for decades, but it only requires votes to be recounted using “manual, mechanical or electronic devices” different than those used in the election; in addition it only requires a random sample of the lesser of either two percent of total votes or 2000 votes.¹⁰⁰⁴ In addition, most of the state uses paperless DREs, which makes independent audits impossible.¹⁰⁰⁵ According to the Secretary of State, “[f]or those counties using optical scan electronic voting systems, the county board of elections shall conduct the statistical recount manually,” and “[f]or those counties using direct recording electronic (DRE) voting systems, the county board of elections shall conduct the statistical recount manually using the ballot images contained in the system.”¹⁰⁰⁶ Ballot images are not software-independent records, and cannot be verified by voters, which is why independent audits in paperless DRE jurisdictions are not possible.

Rhode Island

Rhode Island is rated **inadequate** because it has no state requirement for conducting post election audits, despite having auditable systems in all jurisdictions statewide.

South Carolina

South Carolina is rated **inadequate** because it has no state requirement for conducting post election audits, nor auditable equipment in any jurisdiction.

South Dakota

South Dakota is rated **inadequate** because it has no state requirement for conducting post election audits, despite having auditable systems in all jurisdictions statewide.

Tennessee

Tennessee, rated **inadequate**, passed an audit law as part of the Tennessee Voter Confidence Act (TVCA), which was supposed to go into effect by 2010.¹⁰⁰⁷ However, like the TCVA, the implementation of the audit law has been delayed until after the 2012 elections.¹⁰⁰⁸ Further, as noted above, there have been attempts to repeal the TVCA.¹⁰⁰⁹

Texas

Texas’ audit law **needs improvement** automatically. Its requirement only pertains to optical scan paper ballots,¹⁰¹⁰ but the state has many DRE jurisdictions, and many of those use paperless DREs,¹⁰¹¹ which cannot be audited. Legislation enacted in 2011 explicitly provides

that these partial manual count provisions shall not apply to the tabulation of electronic voting system results from DREs.¹⁰¹²

Utah

Utah's audit regulation **needs improvement**. Before noon on Election Day, each election officer submits to the lieutenant governor a list of all election.¹⁰¹³ Between the closing of polls and noon the next day the lieutenant governor informs "election officers of the selected machines identified for audit."¹⁰¹⁴ Although the machines are selected using a random number generator,¹⁰¹⁵ this statute permits the selection of machines to audit to be conducted earlier than appropriate (prior to the close of polls on Election Day). Another concern identified through our research was that although officials are required to explain in writing any discrepancies between the reported results and the audit results,¹⁰¹⁶ there is no trigger provision.

A representative from the Lieutenant Governor's office confirmed that there have been no changes to the audit regulation since 2008.¹⁰¹⁷ One of the counties surveyed confirmed in general the foregoing procedures, but could not recall specifically what was done in the event discrepancies were discovered, other than to "check the machine again."¹⁰¹⁸ Another reported that the county "has only been asked to do the audit once," and therefore the respondent similarly did not have a fresh recollection of actual procedures.¹⁰¹⁹ Utah could improve its score by requiring that all types of ballots be included in the audit, mandating a procedure for escalation when unresolved discrepancies are identified, and moving the timing for the random selection until after the initial vote count is reported on Election Day.

Vermont

Vermont's law permits, but does not require, the Secretary of State to order a "random post election audit of any polling place election results . . . within 30 days of the election."¹⁰²⁰ According to the Secretary of State, certification is required within seven days.¹⁰²¹ Therefore audits likely will be conducted after certification. Audits were conducted in 2008¹⁰²² and 2010 (for which election an audit of 2% of the polling places using optical scan machines was conducted),¹⁰²³ and an audit is planned for November 2012.¹⁰²⁴ The Town Clerks surveyed reported various practices. One reported that audits also "are not required but encouraged" and that "[w]e do conduct audits."¹⁰²⁵ The other two reported that they do not conduct audits.¹⁰²⁶ We appreciate the voluntary audits when they occur, but because Vermont's law is not a mandate, it automatically receives a **needs improvement**.

Virginia

Virginia receives a score of **inadequate** because it does not have a law requiring audits. However, it is important to give the Commonwealth credit for enacting, in 2008, a statute allowing for a pilot program for audits of optical scan tabulators.¹⁰²⁷ The audit pilot, using various sampling schemes including an adjustable percentage based on margin, was only to be conducted in an election in which the margin between the top two candidates for each office on the ballot exceeded 10 percent, and it was to be conducted only after the results of the election had been certified and have no impact on the election results.¹⁰²⁸ An audit took

place in 2009.¹⁰²⁹ No legislation to institute audits has been adopted since this pilot program, although having audits has been recommended by the State Audit and Review Comm’n.¹⁰³⁰ A DRE county surveyed for this report indicated that because it only uses one optical scanner, in a precinct specifically designated to process absentee ballots, it did not participate in the audit.¹⁰³¹

We recommend that Virginia enact an audit requirement into law at least with respect to all paper ballot systems used in the state. We also recommend that the law require that routine random audits be conducted regularly regardless of the margin of victory, and to take place prior to certification of any results.

Washington

Washington’s audit law was written with DREs equipped with VVPAT printers in mind; since it was passed, all of the state has transitioned to centrally counted vote-by-mail ballots.¹⁰³² Although the audit statute was not updated to reflect that as of the end of 2011,¹⁰³³ according to the Secretary of State, political party observers or the county auditor may select up to three precincts or six batches of ballots to hand count with respect to a contest for office or issue, and the results of the hand count are compared to the machine count totals.¹⁰³⁴ All of the counties surveyed either confirmed¹⁰³⁵ or indicated generally¹⁰³⁶ that this reflects actual practice. We recommend that Washington update its statute, rated as **needs improvement**, to support its change in voting systems and consider moving toward risk-limiting audits.

West Virginia

West Virginia is rated **good**. The State has had a law requiring audits since 2005.¹⁰³⁷ West Virginia has auditable systems statewide.¹⁰³⁸ When manually counted ballots in a randomly selected precinct differ by more than one percent from the machine count or results in a different winning candidate or question, the discrepancies are disclosed to the public and all of the ballots are manually counted.¹⁰³⁹

The counties surveyed reported differing practices with respect to audits. One DRE county confirmed that a 1% discrepancy triggers a 100% manual audit, and also reported that notwithstanding the law, “paper counties still have to audit a percentage of precincts.”¹⁰⁴⁰ One of the optical scan counties surveyed also confirmed the trigger requirement, and added that the county “does a hand counted audit during the canvass of approximately 10% of the total (two precincts).”¹⁰⁴¹ The other optical scan county only confirmed the “[r]ecounts are done on request.”¹⁰⁴²

Wisconsin

Wisconsin’s law, rated **generally good**, does not require that the audit be conducted after every election — just every general election.¹⁰⁴³ However, the state did proactively seek voluntary audits for the 2008 primary elections.¹⁰⁴⁴ The Government Accountability Board audit manual provides that audits must be conducted no later than two weeks after the county board of canvassers certifies the election results, but also that “[t]he county board of

canvassers may conduct the audit as part of its canvass proceedings,”¹⁰⁴⁵ which implies that audits might be (but are not required to be) completed before results are certified. However, according to the Government Accountability Board, “[a]udits take place following state certification,”¹⁰⁴⁶ and two of the counties surveyed confirmed this.¹⁰⁴⁷ Audits conducted after certification are not timely.

Wyoming

In 2010, Wyoming enacted an audit law requiring county clerks to conduct what they term a “random audit” by processing a “preaudited group of test ballots” on five percent of the automated tabulating machines in the county, but not less than one machine, within 30 days of any election in which the tabulating equipment was used.¹⁰⁴⁸ In particular, the audit rules provide that “the post election audit shall not be performed on the official election cards used in the election unless: (A) [a]nother set of election cards is not available; and (B) [t]he election has been certified by the County and the State Canvassing Board; and (C) [n]o legal actions are pending against the election.”¹⁰⁴⁹ This more closely resembles post-election testing (correlating to pre-election “logic and accuracy” testing using a known test deck of ballots, but carried out after the election rather than before). It is not a vote-tabulation audit requirement because it does not require actual ballots to be used or compared to actual electronic tallies from the election. Even under the limited circumstances where that is allowed, it is conducted too late to be of value in ensuring that the certified result was correct. We appreciate that Wyoming conducts post-election testing of this kind; for the purposes of this ranking it receives an **inadequate** unless actual voted ballots are used as a check on the reported totals.

V. BALLOT ACCOUNTING AND RECONCILIATION

As discussed above, we have recommended that all states use paper ballot voting systems. If and to the extent that they do not, they should require paper emergency ballots to be used promptly when voting machines fail. We also recommended that states require voter-marked paper ballots from all absentee voters including UOCAVA voters. Further, we have recommended that states conduct routine random audits of all electronic tallies (whether from DREs or optical scanners) using all of the paper ballots or voter verifiable paper records available, including military and overseas ballots. All of these measures are critical to the accuracy and integrity of the election results, and in particular, to ensuring that the electronic tallies corresponding to the underlying paper ballots are correct.

However, good ballot accounting and reconciliation practices are also required to help ensure that votes have not been “dropped,” or lost, or added as a result of a software failure or human error.

To be clear, ballot reconciliation practices are not a substitute for a voter-verifiable, auditable system that is being robustly audited. Ballot accounting and reconciliation will not necessarily allow a jurisdiction to discover if particular votes have been misread or misrecorded. For example, if a software or programming error causes a voting machine to count a vote for Thomas Jefferson when the voter chose John Adams, ballot accounting and reconciliation would not discover that. Put another way, ballot accounting and reconciliation allows us to determine if all votes were counted, but it will not necessarily let us know if those votes were counted *correctly*. Moreover, even where good ballot accounting and reconciliation lets us know that certain votes have gone uncounted, such knowledge will not necessarily allow us to *find* the uncounted votes.

However, with new, complex voting systems and memory card uploading procedures, it is easier than it should be to lose votes and even count some votes more than once. Ballot accounting and reconciliation practices help ensure that the number of ballots cast matches the number of voters who have voted, that no votes are lost, and that no votes are counted more than once. Jurisdictions can catch the kinds of errors that resulted in incorrect totals in several past elections by checking the number of people who have signed in at the polls against totals reported by the voting machines; double-checking that all absentee votes are counted and that every machine’s total is included in the statewide tally; and accounting for all used and unused ballots.

As we mentioned in the Paper Ballots for Military and Overseas Voters section of the Report (Section III), the re-making of ballots may introduce errors. Jurisdictions may remake electronically-transmitted UOCAVA ballots (whether the electronic transmission was outgoing or incoming or both), to enable them to be counted by optical scanners. Jurisdictions may also remake domestic optical scan ballots if the optical scanner cannot read a particular ballot, or if the ballots are damaged in the mail or at the polling place, or if the voter made markings outside of the designated areas. The survey distributed to election officials did not include a question on this specific practice, but the authors determined over the course of preparing the Report that the practice is widespread.

Although states generally provide safeguards for the process (such as requiring bi-partisan teams to remake the ballots, and/or requiring preservation of the original ballots), a ballot remade by election officials is no more “voter-verified” than a digital record stored inside a voting machine. The paper ballot marked by the voter is tangible evidence – the only tangible evidence of voter intent verified by the voter him or herself – and it should be treated with that level of gravitas. And although voters do not “mark” VVPAT print-outs, if they verify them, then the VVPAT print-out is the only tangible evidence of voter intent verified by the voter. If the intent of the voter can be discerned at all from the damaged or improperly marked paper ballot, or from a damaged VVPAT print-out, then the vote should be manually counted on the basis of that determination, without substituting the original ballot.

Election Day problems in both primary and general elections have served as a stark reminder of the importance of good ballot accounting and reconciliation, before and after, the polls have closed:

- In Ohio’s March 2008 primary, votes in at least 11 counties were lost due to a software flaw.¹⁰⁵⁰ According to the Secretary of State, “[e]lections workers discovered the missing votes, but not until many hours later.”¹⁰⁵¹ In August 2008, Premier voting systems, formerly known as Diebold, acknowledged that programming error. When multiple memory cards containing votes from individual machines were uploaded at the same time to a central location, not all votes were uploaded.¹⁰⁵² This example highlights the importance of good memory card reconciliation procedures for orderly election night reporting.
- In contrast, in the 2008 general election in Northampton County, Pennsylvania, election officials discovered that the county’s paperless DREs were not allowing voters who chose a straight-party ticket to see a review screen to confirm their vote.¹⁰⁵³ After both Democratic and Republican parties filed complaints, a local judge ordered the county to tally the votes directly from the machines’ memory cards, and then impound the machines for further investigation.¹⁰⁵⁴ While impounding the memory cards was an important ballot reconciliation practice, there was no way, however, to verify the election results. Memory cards are not independent voter verifiable records of the votes cast. They only contain the data that the voting machine software (correctly or incorrectly) recorded on them.
- Good ballot accounting and reconciliation procedures can still sometimes provide an important tool when paperless DREs are used. During a March 2009 school board election in Fairfax County, Virginia, election officials discovered that while a total of 707 votes had been cast, one of the two machines in the precinct contained 348 votes, but the second machine contained 724 votes.¹⁰⁵⁵ After officials examined the roll of tape inside, they determined that only 359 votes had been cast on it, and were able to release the election results.¹⁰⁵⁶ Even though the results were entirely software-dependent, the question concerning how many voters voted and how many ballots were cast was able to be resolved.

- Even when paper ballots are used by voters, good ballot accounting and reconciliation are still critical. Although Florida now uses optical scanners statewide, its audits do not take place until after results are certified. Florida has experienced numerous irregularities with electronic tallies, all of which required ballot accounting and reconciliation procedures to resolve. In June 2008 in a special election for West Palm Beach City Commission, 697 votes from three precincts (14 percent of the ballots cast) were not counted on election night. During testing, memory cards had been run through the system twice so when actual results were entered on election night the system filed them in a file election officials did not know to look for; in August 2008 in a Palm Beach County judicial primary, two voting machines counted the same number of ballots and produced different answers, and 3,500 ballots at least temporarily “disappeared”; that same month in the presidential primary in Indian River County, 10,000 votes were counted twice when more than one voting machine tried to transmit results through the same modem; and in March 2012 in Wellington Village, results were swapped among three races, causing two village council seat losers to be declared winners.¹⁰⁵⁷

Software failures, programming errors, damaged memory cards, and lost ballots have caused votes to be miscounted in American elections. However, there are concrete steps that can be taken to make sure that mistakes or foul play do not result in incorrect vote tallies. This includes checking and reconciling backup information in the form of tapes printed from machines, poll books and precinct totals. All jurisdictions should be using these ballot accounting and reconciliation practices to make sure that mistakes or foul play do not result in incorrect vote tallies.

With the contributions of election officials, election administration experts and computer scientists, and as set forth in the 2008 version of this Report, the Brennan Center developed a “Checklist for Best Ballot Accounting and Reconciliation Practices.” We recommend that states adhere to it. The checklist is printed on the next two pages.

BEST PRACTICES CHECKLIST FOR BALLOT ACCOUNTING AND RECONCILIATION

At the polling place:

Account for all ballots, votes, and voters

Before the polls open:

- ☐ Count and record the total number and type (*e.g.*, regular, emergency, provisional) of blank ballots received by the polling place. If multiple styles of ballots are used, each style should be accounted for separately.
- ☐ Print a “zero tape” from each machine that shows that all counters are zeroed.
- ☐ Check all ballot boxes, including those for optical scanners, to make sure they are empty.

After the polls close:

- ☐ Count and record the total number of votes cast as shown on the summary tapes printed from voting machines at the close of polls, and retain these all ballots and summary tapes (*e.g.*, voter-marked paper ballots, voter-verifiable paper records, and vote total tapes).
- ☐ If using optical scanners, check auxiliary bins to make sure they contain no voted ballots that have not been counted.
- ☐ Count and record the total number of provisional ballots cast.
- ☐ Count and record the total number of spoiled ballots.
- ☐ Count and record the total number of unused ballots. If multiple styles of ballots are used, each style should be accounted for separately.
- ☐ If using touch screen DREs, count and record the total number of emergency paper ballots issued.
- ☐ If applicable, count and record the total number of hand-delivered absentee ballots.
- ☐ Count and record the total number of voters who signed in at the polling place. Account for voters who voted provisionally separately from voters who voted on a standard ballot.
- ☐ If possible, count and record the number of voters who signed in but left the polling place without voting.
- ☐ Post copies of paper records of vote totals logged on each machine at the polling place. If possible, include numbers of abstentions and overvotes in each race.

Reconcile vote and ballot totals and address discrepancies at the polling place

- ☐ Compare the total number of votes cast to the total number of voters who signed in. Resolve and explain any discrepancies.
- ☐ For both regular and emergency paper ballots, compare the number of voted, spoiled and unused paper ballots with the number of ballots sent to the polling place. Resolve and explain and address any discrepancies.
- ☐ Compare digital vote tallies from voting machines to vote total tapes. Notify county and state officials of any discrepancies. If using optical scanners, flag ballots that should be re-counted on the central tabulator.
- ☐ If your precinct has an “accumulator” that totals memory cards for each machine, compare the total tapes from each machine to the total tapes from this accumulator.
- ☐ Seal, sign and return packages of used and unused ballots.
- ☐ Deliver official, sealed information packets containing all audit information (poll books, paper ballots, voter verifiable paper trails, vote total tapes, provisional ballots, emergency paper ballots, unused ballots and memory cards) to the central count location.

At the county level:

Reconcile redundancies

- ☐ Review status reports from the electronic tally server to ensure that all memory cards have been read.
- ☐ Compare electronic tally server totals to vote total tapes generated from each voting machine.
- ☐ Account for additional ballots that might not be included in vote total tapes, such as provisional ballots, emergency paper ballots, absentee and mail-in ballots, including military and overseas ballots, and early voting ballots.
- ☐ Reconcile the total number of voters who signed in with the total number of votes recorded in the county, and precinct tallies with county tallies.
- ☐ Re-check reconciliations performed at the polling places and investigate/resolve any discrepancies.

Make all results public

- ☐ Publish results of ballot, machine total, and memory card reconciliations.

RATING THE STATES

States were given numerical scores from zero (does nothing) to five (the law requires all of the major best practices) based on five areas of ballot reconciliation: (1) accounting for all ballots and voters at the polling place; (2) comparing and reconciling (at the precinct level) the number of votes cast with the number of voters who signed the poll books; (3) reconciling at the county level precinct totals with county totals; (4) ensuring that all memory cards have been loaded onto the tally server; and (5) making all results public. To the extent that tally servers are used, as a security measure that protects the ballot accounting function, no system or device upon which ballots are programmed or votes are cast or tabulated should be connected to the Internet at any time. Each state's score was based on how many of the major best practices (from 0 to 5) the state required.

One point was given to states where best practices were codified in law, regulation, or policy. States or counties that reported employing best practices only as a matter of practice were given partial credit. Whole points were also given to states or counties that implemented best practices without codifying them into law. In the case of item (1), partial credit was given if, for example, election officials gathered and returned all polling place materials to the county rather than accounting for them at the polling place first and then returning them. In the case of item (2), partial credit was given if election officials reconciled the number of votes cast to the number of votes at the county level rather than at the precinct level. Partial credit was also deducted when a state required that the number of votes cast be reconciled with the number of voters who signed in, but remedied discrepancies by removing ballots randomly to make the numbers match, because that practice lends itself to ballot-box stuffing. In the case of item (5), partial credit was deducted if officials published only the election result but not any of the ballot accounting or reconciliation information. If a state's rating was between whole numbers due to the assignment of partial credit, the rating was rounded up to the next whole number.

The numerical scores translate to the following ratings:

Inadequate – Any state that received a one or lower, meaning the state only required one of the best practices.

Needs improvement – These states received a two or lower, because they required only two of the best practices.

Generally good, but needs improvement in certain areas – The majority of states fall into this category, and received this rating because they required three of the best practices.

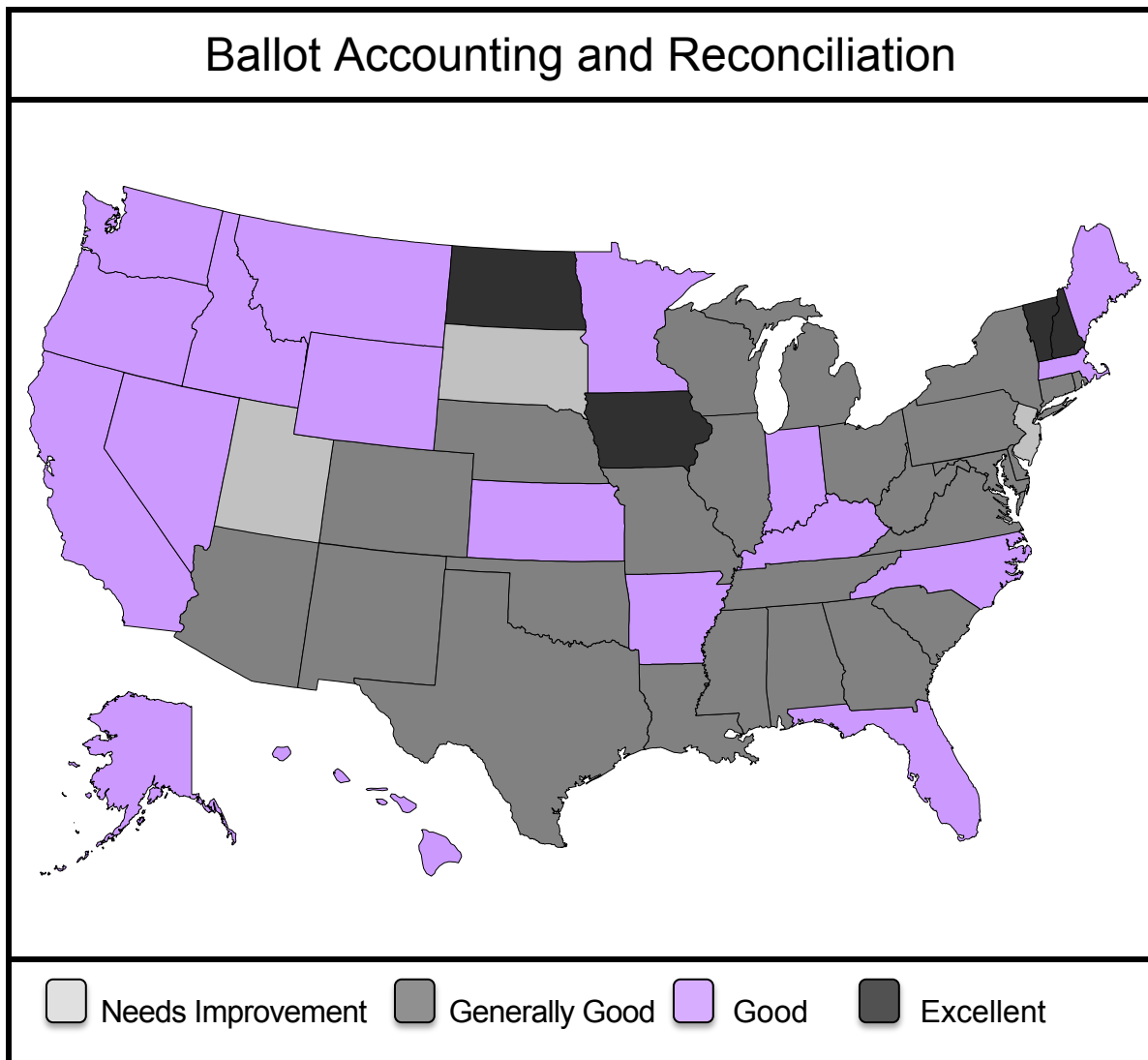
Good – These states required four of the best practices.

Excellent – A state would have to require all five best practices, with a maximum of one deduction of partial credit to receive an excellent rating.

Only Iowa, New Hampshire, North Dakota and Vermont received a rating of “excellent,” by requiring all five of the ballot and vote accounting and reconciliation best practices

summarized above. No state received a rating of “inadequate” because all states require or implemented more than one of the accounting and reconciliation practices we recommend.

While we have rated practices based on legal and procedural requirements, we cannot know for sure what states actually implement those practices uniformly and consistently. For example, we rate Florida’s ballot reconciliation practices as “good” because its law and policy are rigorous. However, as illustrated by the examples above, Florida’s ballot accounting and reconciliation processes need improvement.



Ballot Accounting and Reconciliation

Alabama	Generally Good
Alaska	Good
Arizona	Generally Good
Arkansas	Good
California	Good
Colorado	Generally Good
Connecticut	Generally Good
Delaware	Generally Good
D.C.	Generally Good
Florida	Good
Georgia	Generally Good
Hawaii	Good
Idaho	Good
Illinois	Generally Good
Indiana	Good
Iowa	Excellent
Kansas	Good
Kentucky	Good
Louisiana	Generally Good
Maine	Good
Maryland	Generally Good
Massachusetts	Good
Michigan	Generally Good
Minnesota	Good
Mississippi	Generally Good
Missouri	Generally Good

Montana	Good
Nebraska	Generally Good
Nevada	Good
New Hampshire	Excellent
New Jersey	Needs Improvement
New Mexico	Generally Good
New York	Generally Good
North Carolina	Good
North Dakota	Excellent
Ohio	Generally Good
Oklahoma	Generally Good
Oregon	Good
Pennsylvania	Generally Good
Rhode Island	Generally Good
South Carolina	Generally Good
South Dakota	Needs Improvement
Tennessee	Generally Good
Texas	Generally Good
Utah	Needs Improvement
Vermont	Excellent
Virginia	Generally Good
Washington	Good
West Virginia	Generally Good
Wisconsin	Generally Good
Wyoming	Good

STATE PRACTICES IN DETAIL

Alabama

Alabama uses optical scan systems statewide. Alabama's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

At the close of polls, election officials lock tabulating equipment and print five copies of the vote totals for each candidate or question.¹⁰⁵⁸ Officials then record the polling place, date, tabulator serial number, the value of the public counter showing the total number of ballots cast, and the names of the candidates and questions voted on.¹⁰⁵⁹ Officials then sign and certify a statement of the number of votes for each office and certify the poll list before sealing all elections records and delivering them to the sheriff.¹⁰⁶⁰ The Secretary of State,¹⁰⁶¹ and all of the counties surveyed also confirmed the foregoing.¹⁰⁶² However, two counties reported that they might print more than five copies of the required documents.¹⁰⁶³

Reconcile vote and ballot totals and address discrepancies at the polling place

While both poll lists and the total number of votes cast must be recorded and certified in the precinct count, Alabama law does not explicitly require the number of votes to be reconciled with the number of people who signed in at the polling place. The Secretary of State confirmed our assessment,¹⁰⁶⁴ but all three counties surveyed reported that they do actually reconcile the number of votes cast to the number of voters who signed in.¹⁰⁶⁵ One county reported that, in addition to doing the comparison, election officials "have a ballot accounting certificate that they fill out to make sure the remaining unused ballots and signatures, and spoiled ballots [all] add up."¹⁰⁶⁶ Another county noted that the comparison is done at the precinct level, and reported that election officials "take the number that actually voted and compare that to the number on the machine" and also "check the number of ballots used against the number of people signed in."¹⁰⁶⁷ The third county reported that election officials make the comparison "whether the law says so or not" and that election officials "make sure we balance all of the numbers;" in general discrepancies are minor but if the reconciliation was off "by a significant amount we would investigate further."¹⁰⁶⁸ While Alabama's practices are excellent, reconciling the number of votes cast to the number of voters at the polling place is a fundamental element of the ballot reconciliation process. We recommend that Alabama enact laws mandating that election officials reconcile the number of voters with the number of ballots cast at each polling place.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

Alabama's canvassing board is required to meet after an election to make a statement of the vote totals for the county based on the returns from each precinct.¹⁰⁶⁹ However, Alabama law offers little detail on the practices of the canvassing board. One county surveyed reported that it employs many of the best practices for ballot reconciliation, including comparing the number of votes cast against the number of voters who signed in at the polls,

and comparing precinct totals with composite totals; it also tallies the spoiled, unused, and undervoted or overvoted ballot totals and compares those numbers against the total number of ballots sent to each precinct.¹⁰⁷⁰ Another county reported that it conducts the same reconciliations, but does not specifically account for undervotes.¹⁰⁷¹ The third county reported that “[a]ll the canvassing board does is total the numbers from each precinct. They don’t re-verify the number of people that sign in” because election officials “do all of that the night of the election from the precinct.”¹⁰⁷² While some of these practices are commendable, standardized reconciliation procedures are essential to a fair election; We recommend legally mandating reconciliations both of ballot and vote totals and of precinct totals against composite totals.

With respect to memory card reconciliation, the Secretary of State reported that, as required by law, “all the data cards come back [from the counties] to a central location and [are] uploaded to” a server in the Secretary of State’s office.¹⁰⁷³ All of the counties surveyed confirmed that they upload their memory cards on election night.¹⁰⁷⁴ One county added that the election night uploading requirement was implemented last year, and that it was one of the “test” counties for the system and had been uploading memory cards for several years.¹⁰⁷⁵ Another county added that, after the memory cards are uploaded, election officials “cut a disc and send that to the Secretary of State” then “the numbers are compared to the printout from the precinct.”¹⁰⁷⁶

Make all results public

Poll inspectors post election results outside the polling place¹⁰⁷⁷ and at the county courthouse.¹⁰⁷⁸ The Secretary of State confirmed that election officials “post one copy of the results at the polling place, then at the central location [typically the courthouse “or other public area with more space”] and that they print out a report and make that available.”¹⁰⁷⁹ All of the counties surveyed confirmed posting results at the precinct,¹⁰⁸⁰ two also confirmed posting them on their websites,¹⁰⁸¹ and one added that “[a]nyone is welcome to come into the courtroom where the totals are displayed and updated on a screen.”¹⁰⁸²

Recommendation: Alabama requires two of the best practices summarized above. Its precinct-level ballot accounting procedures appear to be limited to gathering and returning election materials to the central office and its publication requirement appears to be limited to results posting. Alabama conducts the other three best practices in practice. Therefore, Alabama’s ballot reconciliation procedures are generally good but need improvement in specific areas. While the state has good procedures in place for making results public, and its counties independently reconcile ballots in a satisfactory manner, we recommend that Alabama enhance its ballot accounting procedures at the polling place level, and codify additional best practices for ballot reconciliation. Specifically, we recommend requiring a reconciliation of the number of voters with the number of ballots cast at each polling place, requiring a reconciliation of precinct-level totals with composite county totals, and enacting rigorous memory card reconciliation procedures. In addition, we recommend that Alabama expand its publication requirements to include ballot reconciliation information.

Alaska

Alaska uses optical scan voting systems as the standard polling place equipment statewide. Alaska's ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

After the polls close, "the election boards end voting on any voting equipment, print and sign two copies of the election results for sending, along with the voted ballots (including the voter-verifiable record from touch screen units) and memory card used in the voting unit, to the State Ballot Review Board."¹⁰⁸³ Where optical scanners are used, election officials transmit results "via phone line/modem to the central tabulator" and "[i]f for some reason they are unable to transmit in this manner, the results tape and memory card are taken to the regional election office or called in and manually entered into the central tabulator if the regional office cannot get the memory card to upload."¹⁰⁸⁴

Each precinct election board then completes a ballot statement indicating the number of official ballots received; number of ballots voted; number of spoiled ballots; and number of unused or destroyed ballots.¹⁰⁸⁵ The election board records these totals and reports any discrepancies on an election certificate.¹⁰⁸⁶ This certified tally and all "cast" ballots are sent to the state elections division director in separate sealed packages.¹⁰⁸⁷ A copy of the certificate is also sent to the regional elections supervisor.¹⁰⁸⁸

"As part of the ballot statement, the election board also records the number of voters signing the precinct register, the number of questioned ballots voted (which is compared to the number of voters that signed the questioned voting register) and number of special needs ballots issued and voted."¹⁰⁸⁹ In addition, the election board "records the ballot stub numbers for used ballots, which in turn allows the division to determine the stub numbers of the unused ballots. Once the ballot statement is complete, the election board workers sign the certificate included on the statement," and, as noted above transmit it to the State Ballot Review Board.¹⁰⁹⁰

Reconcile vote and ballot totals and address discrepancies at the polling place

The above-referenced ballot statement "includes a reconciliation of the number of ballots issued (includes the number of voters who signed the register, and the number of questioned and special needs ballots) to the total number of ballots used (including the number of touch screen ballots)," and is completed by election officials in the polling place.¹⁰⁹¹ "If there are any discrepancies between the number of ballots issued and the number of ballots used, the precinct election board must provide an explanation on the ballot statement."¹⁰⁹² Under Alaska law, however, "it is the responsibility of the State Ballot Review Board to review and compare the number of voters in each precinct with the number of ballots cast."¹⁰⁹³

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

Elections are conducted entirely under the supervision of the director of the state division of elections,¹⁰⁹⁴ who appoints a bi-partisan state ballot counting review board that reviews all tallies conducted by precinct elections boards.¹⁰⁹⁵ The board reviews the precinct registers, vote tallies (including results from each optical scan and DRE memory card), and regular, absentee, and questioned ballots for discrepancies.¹⁰⁹⁶ Any changes are certified and published on the elections division's website.¹⁰⁹⁷ The ballot counting review board conducts a ballot counting review¹⁰⁹⁸ and upon completion of this review, the director certifies the election.¹⁰⁹⁹

The elections division also reports that it “routinely reviews status reports on election night and throughout the state ballot review for memory card uploads” from both optical scan machines and DREs to ensure that all memory cards are read.¹¹⁰⁰

Making results public

Vote tallies and changes resulting from the director's review are posted to the elections division's website.¹¹⁰¹ In addition, “any poll watcher or observer in the polling place can obtain a copy of the individual precinct results from the precinct election board.”¹¹⁰²

Recommendation: Alaska requires three of the best practices summarized above, reviews precinct tallies at the state level, and reconciles memory cards in practice, therefore Alaska's ballot reconciliation procedures are good. We recommend that Alaska enhance procedures to reconcile precinct totals with composite totals, and enact rigorous procedures to account for and reconcile memory cards.

Arizona

Arizona uses optical scan voting systems statewide as the standard polling place equipment. Arizona's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

As soon as the polls close “and the last ballot has been deposited in the ballot box, the election board or the tally board shall immediately count the votes cast” and continue “without adjournment” until the count is completed.¹¹⁰³ The election judge compares the number of votes cast as indicated by the poll list to the number of provisional ballots cast and the number of ballots cast or votes recorded on each voting machine.¹¹⁰⁴ Officials then tally valid votes and identify invalid ballots.¹¹⁰⁵ There is no legal provision for invalid or unused ballots to be tallied and recorded at the precinct level. After the votes are tallied, election officials seal ballots and sign the tally list.¹¹⁰⁶ Poll workers then deliver the tally list, poll list, and voted ballots to county election officials.¹¹⁰⁷ In precincts that rely on central tabulation, poll workers deliver a report of the number of voters who have voted, as indicated on the poll list, and the ballot box itself to the central counting location.¹¹⁰⁸ This practice allows for vote loss or manipulation. Thus, we recommend tallying *all* ballots, including spoiled and unused ballots, at the polling place.

Reconcile vote and ballot totals and address discrepancies at the polling place

The first required step in the Arizona canvass is a comparison at the precinct of the number of voters who signed the poll list to the number of ballots cast or votes recorded on each voting machine.¹¹⁰⁹ One of the counties surveyed confirmed that it reconciles ballots cast with provisional and spoiled ballots, as described above, but clarified that poll workers do not “resolve problems with the numbers. They only fill out the precinct ballot report.”¹¹¹⁰ Another similarly confirmed that reconciliation are conducted through the use of a “polling place report,” which “entails reconciling ballots received, and voters arriving at the polls, compared to the count on the machines and provisional ballots.”¹¹¹¹ The respondent for that county also reported that instructions for reconciling discrepancies are included in poll worker training, but when discrepancies are discovered, “I tell them to call me.”¹¹¹² An official from a third county reported that it is the county that “reconciles [the] number of voters at precincts,” that discrepancies are checked for at the polls, and only “[i]f they can't figure it [out]” is the discrepancy referred to the county for resolution.¹¹¹³

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

Arizona law is vague about the elements of the canvass at the county level, mandating only that an additional canvass shall be made by “opening the returns” from each precinct.¹¹¹⁴ If there appears to be a discrepancy in a precinct, the county will call upon precinct officials to re-tally the votes.¹¹¹⁵ The requires that a detailed canvass statement be completed.¹¹¹⁶ The statement must include the number of ballots cast and rejected in each precinct and in the county, and the number of votes by precinct and county received by each candidate or proposal.¹¹¹⁷

One county reported that, in addition to reviewing the precinct reports as described above, “[t]here is an overall accounting of what happened in the polling places,” which includes a record of any machine failures and how ballots were handled.¹¹¹⁸ Another county reported that “polling place tabulation [reports are] checked against the canvass report,” which is completed at the county level, and that in resolving any discrepancies discovered, the county officials will contact the poll workers from the precinct in question and ask for additional information.¹¹¹⁹ A third county official reported that “the county reconciles number of voters at precincts” by “reconcil[ing] the number of ballots given out with the [optical scan] or DRE counts,” and that if discrepancies referred to the county for resolution cannot be resolved by the “receiving board,” they are resolved by a “snag board.”¹¹²⁰

While these counties’ efforts are good practices, we recommend that best practices for ballot accounting and reconciliation at the county level be mandated by state law.

Make all results public

Arizona law requires one copy of the certificate of election containing the number of ballots cast, number of ballots rejected, and number of votes for each candidate or question to be posted outside each polling place.¹¹²¹ Officially, counties using automatic vote tabulating equipment are exempted from this requirement, although precinct officials must mail a copy of the abstract in with their returns and the copy must be made public upon receipt.¹¹²² We could discern no legitimate reason for uneven requirements for precinct-based public disclosure of canvass results across different voting systems, particularly because Arizona uses automatic tabulators statewide.

One of the counties surveyed reported that “[a]fter the last ballot is cast, all of the information is received [by the county] via a telephone modem from the polling places, and posted on the [County] website via the election night reporting system,” starting at 8:00 p.m. on election night.¹¹²³ Another county reported that results are made public by “the state’s election night reporting on the web,” and “on the city website,” and that the county also sends results to small jurisdictions and those jurisdictions release them to the public.¹¹²⁴ A third county reported that results are posted “within 24 hours” by the Secretary of State.¹¹²⁵

Recommendation: Arizona requires three of the best practices summarized above. It may not be enforcing one of them (election officials do not necessarily reconcile votes to voters at the polling place). There are no explicit requirements for reconciling precinct and county totals, or reconciling memory cards. Therefore, Arizona’s ballot reconciliation procedures are generally good but need improvement in specific areas. We recommend that Arizona enhance its polling place ballot accounting requirements. We also recommend that best practices for reconciling the number of votes to the number of voters at the polling place, and for ballot and memory card accounting and reconciliation at the county level be mandated by state law.

Arkansas

Arkansas uses a combination of optical scanners, VVPAT-equipped DREs and, in three counties, DREs without VVPAT as the standard polling place equipment. Arkansas' ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

After the polls close, local election officials total and record the number of voters on the poll list,¹¹²⁶ then “total the number of voters on the list-of-voters form and certify and attest the form.”¹¹²⁷

In precincts where optical scanners are used, election officials then “compare the total number of voters indicated by the electronic vote tabulating device with the list of voters to ensure that the number recorded by the tabulator is the same as the number of voters shown on the list of voters; . . . [i]f the totals are different, this fact shall be reported in writing to the county board of election commissioners with the reasons, if known.”¹¹²⁸ Both of the DRE counties surveyed confirmed that they also conduct this reconciliation,¹¹²⁹ and one added that “[t]he totals on the back of the machines are compared with the number of people signed in on the list at the end of the night.”¹¹³⁰

Poll workers then count write-in votes, and prepare a return of the votes.¹¹³¹ If ballots are counted at the precinct, officials examine over-voted ballots and attempt to determine the voter's intent.¹¹³² After the initial tally at the polls, local election officials deliver a copy of the tally sheets and a copy of the certificate of election to the county clerk.¹¹³³ They deliver another copy of the certificate of election and the tally sheets to the county board of election commissioners.¹¹³⁴ Officials then seal ballots, keeping voted and unused ballots separate, and deliver them to the county board of election commissioners.¹¹³⁵ If ballots are to be counted centrally, poll workers place them in a sealed container and deliver them to the county board of election commissioners along with all unused, void and defective ballots.¹¹³⁶

In precincts that use DREs, officials produce and deliver tally sheets and a certificate of elections in the manner described above,¹¹³⁷ remove the activation pack or device from each machine,¹¹³⁸ and then publicly expose “the count from each voting machine to all poll workers and designated watchers for the candidates or parties.”¹¹³⁹ Officials must print three copies of the return records.¹¹⁴⁰ One of the copies is posted on the wall of the polling station for public viewing.¹¹⁴¹ The remaining two copies are returned, with the activation packs, to the county board of election commissioners for canvassing.¹¹⁴²

Reconcile vote and ballot totals and address discrepancies at the polling place

In precincts using tabulators, election officials compare the number of voters indicated by each machine with the list of voters.¹¹⁴³ Officials must report any discrepancies.¹¹⁴⁴ Oddly no such comparison is officially required when other voting systems are used. But both of the DRE counties surveyed confirmed that they conduct this reconciliation in practice.¹¹⁴⁵ We recommend adopting mandatory voter and ballot reconciliation procedures for all voting systems.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

For precincts using DREs, the county board of election commissioners compiles totals from all activation packs and compares precinct officials' certified paper return records to countywide electronic records.¹¹⁴⁶ This involves both memory card reconciliation and reconciling precinct totals with county totals. Where optical scanners are used, the "return printed by the electronic vote tabulating device, to which has been added the return of write-in, early, and absentee votes, shall constitute the official return of each polling site."¹¹⁴⁷

The law requires that before certifying the official results, county officials prepare: a report listing the number of people who voted in the election, number of early votes cast, number of votes cast on Election Day, number of absentee ballots cast, number of regular ballots cast on Election Day, number of provisional ballots counted and disqualified for each method of voting, the number of spoiled ballots, number of unused ballots, and the total number of ballots printed.¹¹⁴⁸ Both of the counties surveyed confirmed that the law was being carried out in their counties.¹¹⁴⁹

The county board of election commissioners transmits the certified results for each polling place to the county clerk who immediately transmits the results to the Secretary of State via an Internet website interface provided by the Secretary of State.¹¹⁵⁰ The Secretary of State may require additional election materials to be submitted with the certified results.¹¹⁵¹ The county board of election commissioners then ascertains the election results from the certificates and ballots received from several precincts and certifies the results to the Secretary of State.¹¹⁵²

Making results public

Where optical scanners are used, "[t]he counting of votes by electronic vote tabulating devices at the courthouse or other central counting location shall be open to the public," and "upon completion of the count, the returns shall be open to the public."¹¹⁵³ Where DREs are used, a copy of each machine's return record is posted on the wall of the polling site.¹¹⁵⁴ Arkansas also posts all results by polling place on its website.¹¹⁵⁵

Recommendation: Arkansas requires three of the four best practices summarized above, and requires a fourth (reconciling the number of votes to the number of voters at the polling place) where automatic tabulators are used; that reconciliation is conducted in practice where DREs are used. Therefore, Arkansas' ballot reconciliation procedures are good. We recommend that Arkansas enhance its precinct-level ballot accounting procedures, adopt mandatory voter and ballot reconciliation procedures for all voting systems, and enhance its publication requirements to include canvass reports and ballot reconciliations in addition to results posting.

California

California uses optical scanners as the standard polling place equipment in all but two counties, which use VVPAT-equipped DREs. California's ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

Immediately upon the closing of the polls and before any voted ballots are taken from of the ballot containers, a precinct board member is required publicly to “to render the unused ballots unusable” by marking them with an “X”, cutting or tearing them, placing them in a sealed container, or recycling them.¹¹⁵⁶ Before the ballot count commences, election officials count the number of ballots cast and compare it to the number of signatures on the voter roster.¹¹⁵⁷ Any discrepancies are noted and accounted for.¹¹⁵⁸ The precinct board is also required to “account for the ballots delivered to them by returning a sufficient number of unused ballots to make up, when added to the number of official ballots cast and the number of spoiled and canceled ballots returned, the number of ballots given to them.”¹¹⁵⁹ All of the counties surveyed reported using a standardized form to account for all ballots.¹¹⁶⁰

Ballots may be tallied in the precincts using an automatic tabulator.¹¹⁶¹ Where central count optical scanners are used, officials separate spoiled, voided, provisional and absentee ballots and send them to the central counting center.¹¹⁶² DRE counties account for ballots using the standardized form described above,¹¹⁶³ VVPATs must be used to resolve any discrepancies discovered between the machine count and the manual count during the semifinal official canvass.¹¹⁶⁴ Vote-by-mail (Absentee) ballots may be mailed to county election officials or dropped off at the polling place on Election Day.¹¹⁶⁵ “Vote-by-mail ballots and mail ballot precinct ballots returned to the elections office and to the polls on Election Day that are not included in the semifinal official canvass phase of the election shall be processed and counted during the official canvass.”¹¹⁶⁶

Votes cast by mail and at the polling place are tabulated by precinct.¹¹⁶⁷ All valid write-in votes are required to be tabulated and certified on forms provided for that purpose, and to be added to the results of the count of the ballots at the counting place and included in the official returns for the precinct.¹¹⁶⁸

Reconcile vote and ballot totals and address discrepancies at the polling place

Precinct officials are required to compare the number of votes cast to signatures on the voting roster and address any discrepancies.¹¹⁶⁹ Poll workers must also reconcile the number of voted, spoiled, canceled, provisional and unused ballots with the number of ballots delivered to the polling place.¹¹⁷⁰

Reconciling precinct totals to county totals, and reconcile memory cards at the county level

Immediately upon the close of the polls, officials conduct a “semifinal official canvass” in which they tally the number of valid votes cast for each candidate and/or proposition.¹¹⁷¹ During the official canvass that commences after Election Day, election officials reconcile

the number of signatures on the roster with the number of ballots recorded.¹¹⁷² If a discrepancy is discovered, officials will reconcile ballots and signatures for each polling place within their jurisdiction.¹¹⁷³ Officials also reconcile the number of counted, spoiled, canceled, invalidated or overvoted and other ballots with the number of votes recorded by the vote counting system, including the number of provisional or by-mail ballots.¹¹⁷⁴

The counties surveyed reported varying practices with respect to reconciliation of memory card and totals tapes. One County reported that it “run[s] a precinct report towards [the] end of [the] night and looks for anomalies on the electronic side, and that it “compar[es] results tapes from precinct scanners to memory cards uploaded to the tally servers.”¹¹⁷⁵ Another county reported similarly that after the memory cards are removed from the machines, they are “tallied on the server,” and that “[t]ape totals are compared with the memory card totals, and memory card totals are compared to the tally server.”¹¹⁷⁶ San Mateo County reported that memory card and vote total reconciliation is conducted during the official canvass period.¹¹⁷⁷

Make all results public

After ascertaining or receiving precinct results, county officials must make results available to the public.¹¹⁷⁸ After the official canvass, the election officials must announce and post the results, along with write-in and paper ballot totals, outside the counting place.¹¹⁷⁹

The Secretary of State’s office reported that “[w]here voting equipment is used to record and tabulate vote results in a polling location, upon close of the polls, the poll workers are required to print and sign a copy of the accumulated voted results and post it outside the polling location.”¹¹⁸⁰ All of the counties surveyed confirmed that they post totals tapes at the polling place.¹¹⁸¹ Humboldt County clarified that signed copy of the tape is sent back to the elections office and that, to protect the privacy of the poll workers, the unsigned tape is posted at the polling place.¹¹⁸²

Recommendation: California requires three of the best practices summarized above and conducts a fourth in practice. Therefore California’s ballot reconciliation procedures are good. The state has good measures in place for accounting for all ballots and voters and for reconciling the number of votes to the number of voters at the polling place. In addition, and election officials reconcile memory cards in practice, although it is not required by law. We recommend that the state enact explicit requirements for reconciling precinct totals with county totals, and for reconciling memory cards at the county level. In addition, if the canvass report published does not include ballot accounting and reconciliation information, we recommend that such publication be required.

Colorado

Colorado uses a combination of optical scanners, mixed optical scan and DREs with VVPAT, and VVPAT-equipped DREs statewide, except for one county which uses mixed optical scan and paperless DREs, and one county which uses paperless DREs. Colorado's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

According to the Secretary of State's office, "Colorado allows local control on specific reconciliation processes and as such, counties are authorized to utilize processes best suited for their election and counting methods."¹¹⁸³ Where paper ballot optical scan voting systems are used, election judges prepare a return "showing the number of eligible electors, as indicated by the poll book, who have voted in the precinct, the number of official ballots or ballot cards received, and the number of spoiled and unused ballots or ballot cards returned."¹¹⁸⁴ Election judges then fill out an election certificate and place the ballots in a sealed box for delivery to a central counting location.¹¹⁸⁵ Returns are also printed by optical scanners. Write-in votes are added to that total, and the returns are then certified by election officials.¹¹⁸⁶ In precincts using electronic voting machines that do not use paper ballots, election judges print totals tapes from the machines.¹¹⁸⁷

In all precincts and at central counting centers, election judges count all votes and prepare a certificate for each precinct listing the number of votes for each candidate or question, along with the total number of ballots received, the number of spoiled and unused ballots, and the number of unofficial or substitute ballots.¹¹⁸⁸ This statement is returned to county election officials with all ballots, poll books, paper totals tapes and accounting forms.¹¹⁸⁹

Reconcile vote and ballot totals and address discrepancies at the polling place

At the polling place, all ballots must be accounted for, and the number of voters who signed in on the poll books must be noted.¹¹⁹⁰ Colorado also conducts a thorough accounting of each type of ballot at the polling place.¹¹⁹¹

Reconciling precinct totals to county totals, and reconcile memory cards at the county level

The county canvassing board reconciles the number of ballots cast with the number of ballots counted. The Secretary of State's office clarified that this process includes tabulating "all of the sign-ins and compar[ing] that number to all of the votes cast."¹¹⁹² If any discrepancies are discovered, the canvassing board requires a signed explanation from local elections judges.¹¹⁹³ The practice of reconciling precinct totals with composite county totals is not required by law. We recommend legally mandating the practice of comparing precinct and composite totals.

The counties surveyed reported various ballot accounting and reconciliation practices. However, the county all indicated that the reconciliation process is handled at the county level. One reported that the county "run[s] a canvass a week after [the election]," and that judges compare and reconcile the paper trail to the computer tally.¹¹⁹⁴ Another county

reported that the process of reconciling votes cast to voters is done by hand count,¹¹⁹⁵ and a third county reported that the process is handled by a canvassing board with one democrat, one republican and one unaffiliated member.¹¹⁹⁶

The counties surveyed also reported varying practices with respect to accounting for and reconciling memory cards. One county reported that memory cards are deployed to the polling places and sealed with log sheets, that the memory cards stay in the equipment after the election, and that the tally and the total number of votes are then “double checked.”¹¹⁹⁷ Another reported that election judges are required to “sign off” on the memory cards and supplies they receive back from the polling place.¹¹⁹⁸ A third county reported that it does not use memory cards.¹¹⁹⁹

Making results public

At all polling places, election judges are required to prepare abstracts of the vote count and post them in a manner that makes them visible from outside the polling place.¹²⁰⁰ In addition, “official results are made publicly available after canvass activities have concluded” and “[t]he majority of Colorado counties also post unofficial results on their webpages after polls close.”¹²⁰¹

Recommendation: Colorado requires two of the best practices, although its publication requirements appear to be limited to posting results; Colorado also reconciles the number of votes cast with the number of voters, although at the county level. Colorado conducts a fourth best practice although it is not legally required. Therefore, Colorado’s ballot reconciliation procedures are generally good but need improvement in specific areas. While the state performs extremely well in ballot and vote accounting at the precinct level, and reconciles memory cards in practice, we recommend that Colorado legally mandate the practice of reconciling the number of votes to the number of voters at the polling place and reconciling precinct and composite totals at the county level. We also recommend that Colorado adopt clearly defined and uniform memory card reconciliation procedures. Finally, we recommend that Colorado enhance its publication requirements to include ballot reconciliation information.

Connecticut

Connecticut uses optical scan systems statewide as the standard polling place equipment. Connecticut's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

Immediately after the close of the polls, official checkers give the “moderator,” who oversees canvassing in each town, a certificate listing the total number of eligible voters and the total number of voters who are marked as having voted.¹²⁰² “Ballot clerks” for each location tally the number of spoiled and unused ballots, and return a report of this tally, along with the total number of ballots received by the precinct, to the municipal clerk.¹²⁰³ Over-voted ballots are not tallied as to the over-voted contest. Instead, they are tallied “to the extent they can be,” and “[i]f the voter wishes to start over with a new ballot, then the over-voted one will be spoiled;” over-voted ballots are then returned along with spoiled and unused ballots.¹²⁰⁴ Ballots that cannot be read by the tabulator are hand-counted.¹²⁰⁵ All other totals are read off of ballot scanner counters – or totals tapes if applicable – publicly announced and manually recorded by poll workers.¹²⁰⁶ The moderator then completes a return showing the total number of votes cast, the number of votes for each candidate or question, the number of write-in votes and (if any) the number of absentee votes.¹²⁰⁷ Poll workers remove the results report from each tabulator and attach it to the moderator's return.¹²⁰⁸

Reconcile vote and ballot totals and address discrepancies at the polling place

While Connecticut law requires that the moderator's return of votes and the poll lists to be sealed together with tabulators at the end of election night,¹²⁰⁹ the law does not explicitly require the number of votes and the number of voters to be compared. The moderator's return includes ballots counted by the tabulator and ballots counted by hand.¹²¹⁰ The Secretary of State's office reports that the moderator's return does include a comparison between the number of individuals checked as having voted on the poll list and the number of votes recorded on optical scanners, but that these numbers would not be expected to agree.¹²¹¹ The total votes cast as recorded by the optical scanner does not include votes cast on the accessible voting system, and absentee voters are checked off on the polling lists even if their ballots are counted centrally; therefore, they would not be found at the polls.¹²¹² Reconciliation of ballots cast to voters recorded as having voted is crucial. We thus recommend that such a reconciliation, be explicitly required by law.

One of the election officials surveyed reported that “when the polls close, they do a comparison by looking at a hard copy list showing names of people crossed off who checked in, and were given a ballot,” and then “at the end of the night, we compare the final ending number of the ballots that went through, plus the number of ballots read at the polls by hand, to come up with a total number of ballots cast,” including provisionals.¹²¹³ All of the information is then recorded on the moderators return; the return includes the “number of ballots [sent] through the scanner, the number hand counted, [and] the number checked off as having gone through the check-in line If there are more ballots cast than people, that is flagged for the Secretary of the State to pull the report and do further investigation.”¹²¹⁴

Another election official confirmed the moderator's return procedures, and added that it includes 11 distinct accounting and reconciliation forms.¹²¹⁵ A third reported that election officials "print up our list prior to the election, then we check off the absentee voters from the list. . . . When we get everything back [from the polls], all voters have been checked off of the list at the polling place, including the absentee ballots."¹²¹⁶

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

Elections in Connecticut are conducted at the municipal level. According to the elections code, moderators deliver to the Secretary of State tabulators, the moderator's return with a tally of the votes, and a certified list of the total number of registered voters checked as having voted directly.¹²¹⁷ Tabulators are returned to the Registrar of Voters and poll lists are filed with the Town Clerk.¹²¹⁸

The election officials surveyed all reported that, in practice, the procedure is somewhat different. One reported that the moderator's return and related materials are first sent to the Registrar's office, where election officials "go over everything [and] check moderators returns," and that then "those numbers go into the head moderator's report and that goes to Secretary of State."¹²¹⁹ Another official reported that the Registrar's office may help with the transmission of returns, but that it is the responsibility of the moderator to send them to the Secretary of State.¹²²⁰ A third reported that a "head moderator" oversees and reviews all of the work of the other moderators, and that the head moderator then sends the completed returns to the Secretary of State.¹²²¹

Within three days of an election, in the event of a discrepancy in the returns of any voting district, the moderator must order a re-canvassing of the votes of the district.¹²²² While town clerks are required to furnish the state with vote totals broken down by voting district and account for all discrepancies, this report is not required until 21 days after an election.¹²²³ One of the election officials surveyed confirmed the timing set forth above.¹²²⁴ Another reported that the process may be shorter than 21 days.¹²²⁵ A third reported that "[t]his information is sent over the next day."¹²²⁶ Reconciliations of totals reported by each precinct are crucially important. We thus recommend formally mandating that such a comparison take place as a part of the official canvass.

Making results public

One copy of the results report printed from each tabulator is to be posted at the polling place for public inspection.¹²²⁷ The moderator must also publicly announce the election results at each polling place¹²²⁸ and in each municipality.¹²²⁹ All moderators' returns and poll lists "are filed locally, with the Town Clerk, so that they are readily available, and located in the same town as, the people voting at that election."¹²³⁰

The election officials surveyed reported varying practices. One reported that a copy of the results tapes is available at the Registrar's office and that the moderator's return is available at the Town Clerk's office.¹²³¹ Another reported that election officials post both the "zero tape" from the opening of the polls and the results tape from the closing of the polls at the polling place on election night.¹²³² The third confirmed that the summary above is correct

and added that “[t]he moderator’s returns and poll lists are filed locally and available for public inspection 10 days after the election.”¹²³³

Recommendation: Connecticut requires two of the best practices and conducts a third, although it is not required by law. Therefore, Connecticut’s ballot reconciliation procedures are generally good, but need improvement in specific areas. While the state has good procedures in place for accounting for ballots and voters at the polling place, reconciles the number of votes to the number of voters at the polling place in practice, and requires publication of results, a number of crucial reconciliation practices are not mandated by law. We recommend explicitly requiring precincts to compare the number of ballots cast with the number voter signed in at the polling place, and requiring municipal officials to reconcile precinct and composite totals. We also recommend that Connecticut reconcile any memory cards used.

Delaware

Delaware uses paperless DREs statewide as the standard polling place equipment. Delaware's ballot accounting and reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

At the close of the polls, election inspectors verify that each voting machine has been deactivated, and record the protective counter number from each voting machine on to the voting machine certificate.¹²³⁴ All of the counties surveyed confirmed that they perform this function.¹²³⁵ Then, election officials print total tapes from all machines.¹²³⁶ Officials remove memory cartridges, place them in a sealed envelope, and deliver them to a central count location.¹²³⁷ Officials at the polling place sign each total tape¹²³⁸ and set one copy aside for delivery to the Department of Elections.¹²³⁹ The elections inspector then reads the votes cast for each candidate aloud.¹²⁴⁰ Those votes are tallied by two clerks.¹²⁴¹ The clerks compare and reconcile their tallies before delivering the original totals tapes used in the tally to the Prothonotary.¹²⁴² Election officials then seal the printers and the voting machines¹²⁴³ and deliver paper tapes from each machine, poll lists, registration books, voter signature cards, tally sheets and all other election materials to the county.¹²⁴⁴

Reconcile vote and ballot totals and address discrepancies at the polling place

Poll workers at the precinct level are not required to reconcile the number of votes recorded with the number of voters who signed poll books.¹²⁴⁵ The counties surveyed reported varying practices on this subject. One reported that both the poll workers and county officials reconcile the number of votes to the number of voters who signed in.¹²⁴⁶ The other two reported that poll workers do not conduct that reconciliation. Instead, it is conducted at the county level as part of the superior court canvassing process described below.¹²⁴⁷ We recommend reconciling the number of voters with the number of votes at the polling place.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county superior court convenes and acts as a canvassing board, examining precinct results and calculating the composite county totals for each candidate or question.¹²⁴⁸ The county canvassing board reconciles all election documents delivered to them by the precincts; When these documents do not agree, they examine voting machines, conduct a recount, and/or correct any errors as appropriate, including fraud.¹²⁴⁹

Election officials compare paper tapes from each machine to the tally server to reconcile precinct totals with composite totals and to ensure that each memory card is recorded.¹²⁵⁰ All of the counties confirmed conducting both of these reconciliations,¹²⁵¹ and reported similar practices. Two of the counties surveyed confirmed that the central counting system is programmed so that it will know if memory cards were issued but not read (it “doesn’t report unless all precincts are read”),¹²⁵² and will not upload a memory card more than once (“[t]he reader doesn’t work on a cartridge if it has already been read”).¹²⁵³

Make results public

Delaware law requires election results to be made public.¹²⁵⁴ All certificates, poll lists, oaths, voter signature cards, tally sheets and other records are public records are filed in the department of elections for one year.¹²⁵⁵ While there are no specific provisions requiring posting of any ballot accounting information publicly, voting machine totals tapes printouts are posted to an outside window in each polling place.¹²⁵⁶ We recommend also making the results of the county superior courts' reconciliations public.

Recommendation: Delaware requires three of the best practices., although it conducts more ballot accounting at the county level than at the precinct level, and its publication requirements appear to be limited to posting results. One county also reported reconciling the number of votes to the number of voters. Therefore Delaware's ballot reconciliation procedures are generally good, but need improvement in specific areas. While the state has good procedures in place for, reconciling precinct results with county level results, and reconciling memory cards, we recommend that the state enhance its ballot accounting procedures at the polling place and enact provisions requiring election officials to reconcile the number of votes cast to the number of voters at the polling place. In addition, it is crucial that the results of these county level reconciliations be made public. While we commend jurisdictions that post results tapes despite the lack of a statutory requirement to do so, we recommend that the state enact requirements mandating that the results of the county superior courts' reconciliations also be publicized.

District of Columbia

The District of Columbia uses optical scanners district-wide as the standard polling place equipment. The District of Columbia's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

After the close of the polls, poll workers scan all of the ballots at the precinct,¹²⁵⁷ including all emergency ballots and ballots deposited in an auxiliary bin.¹²⁵⁸ An election official surveyed for the report confirmed this process.¹²⁵⁹ Officials then secure all ballots in transfer cases to be sent to a Counting Center.¹²⁶⁰ They then produce vote totals tapes from the optical scanner¹²⁶¹ and record the reading from the tabulating system's public counter on the totals tape.¹²⁶² Poll workers then seal the totals tapes and the tabulator's memory card¹²⁶³ and deliver all materials to the District's Central Count location.¹²⁶⁴ Final tabulation is conducted at the Counting Center.¹²⁶⁵

For the DRE used at each precinct, a totals tape "is printed out and verified"¹²⁶⁶ by referencing the public counter number and voter sign-ins.¹²⁶⁷ Poll workers then place "the DRE's tabulation cartridge into a transfer case which shall be sealed with a signed certificate for delivery to the Counting Center."¹²⁶⁸

In either case, poll workers are required to prepare a report indicating, among other things, the number of votes cast and the number of voters who signed in.¹²⁶⁹

Reconcile vote and ballot totals and address discrepancies at the polling place

After precinct tabulation, and before ballots are sent to the Central Count location, the precinct captain must account for the number of voted, spoiled and unused ballots, along with the number of ballots issued to the precinct.¹²⁷⁰ Officials, while required to record the number on the public counter on the totals tapes as noted above, are not, however, required to reconcile the number of ballots cast with the number of voters signed in at the precinct level. An election official surveyed confirmed both of these practices.¹²⁷¹ While this reconciliation is conducted at the Counting Center,¹²⁷² we recommend that the practice of reconciling voters with ballots also be adopted at the polling place.

According to the D.C. Board of Elections and Ethics, "[p]oll workers also write down information and must explain discrepancies," using "a captain's notebook, or diary . . . to record anything that happened during the day."¹²⁷³ In addition, "ballot accounting forms are used by the [Board] to research discrepancies" and the Board will "ask poll workers to explain them."¹²⁷⁴

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The District of Columbia does not have counties, and all reconciliation occurs at the Counting Center. At the Counting Center, the Board of Elections and Ethics uploads the data from the memory cards to post unofficial results on the website, and then prepares a

print-out of the results for the office.¹²⁷⁵ Officials must then generate a report of the ballot tallies by precinct, by groups of precincts and District-wide.¹²⁷⁶ Officials then calculate vote totals for each candidate or question by precinct and District-wide¹²⁷⁷ and create a consolidated report of vote totals by precinct.¹²⁷⁸ After all ballots are tallied, but before election results are certified, election officials account for all ballots and votes.¹²⁷⁹

During this accounting, officials must compare and reconcile ballots and voters across six categories. For each precinct, (1) “the sum of the number of ballots issued to the voters, less the number of spoiled ballots, should equal the total number of ballots cast in the precinct;”¹²⁸⁰ (2) “the sum of the number of cards issued to voters and exchanged for ballots, plus the number of special ballots, should equal the total number of voters” who signed in¹²⁸¹ (this is done at the precinct and at the Counting Center);¹²⁸² and (3) “upon completion of the Election Day count and exclusive of special and absentee ballots, the sum of the number of polling place ballots counted plus the number of special ballots cast should equal the totals” from (1) and (2).¹²⁸³ For the entire election, (4) “the sum of the number of absentee ballots issued to voters electronically, by mail, in person, by affidavit (emergency), spoiled absentee ballots, plus the number of absentee ballots remaining unused, should equal the total number of absentee ballots;”¹²⁸⁴ and (5) “the sum of the number of absentee ballots cast, absentee ballots spoiled, and absentee ballots not returned, should equal the total number of absentee ballots issued to voters.”¹²⁸⁵ Finally, for every “Single-Member District, the total number of Single-Member District ballots cast should equal the sum of the ballots cast in each precinct servicing that Single-Member District.”¹²⁸⁶

The District of Columbia also has a system for reconciling memory cards, whether from optical scanners or DREs. On Election Day, drivers retrieve voting machines, which must be signed in and out of the central facility; “[c]hain of custody is logged” and “[memory] cards are pulled and sent to the counting room [where] the card readers are [and] which is open for public viewing. The person in the counting room signs for them. The cards or cartridges are read, and the totals are updated by precinct until all 143 precincts are accounted for. If/when they are short any memory cards, [the system] knows where those memory cards were assigned so [election officials] know where to look.”¹²⁸⁷

Make all results public

As soon as the polls close and results are tabulated, poll workers are to post election results (which the Board of Elections and Ethics reports are the tapes printed from the voting machines)¹²⁸⁸ “in a conspicuous place that can be seen from the outside of the polling place.”¹²⁸⁹ The Board of Elections publishes the certified results of each election in the D.C. register and, as soon as memory cards are uploaded, on its website.¹²⁹⁰

Recommendation: The District of Columbia requires four of the best practices, although most of its ballot accounting at the precinct level involves gathering and returning materials to the central level and its publication requirements appear to be limited to results posting. Therefore the District of Columbia’s ballot reconciliation procedures are generally good but need improvement in specific areas. While the district performs extremely well in reconciling ballots centrally and reconciling precinct totals with composite totals, we recommend that the practice of reconciling voters with ballots be adopted at the polling place. We also recommend that the District of Columbia enact rigorous requirements for reconciliation of

any memory cards. In addition, we recommend that the District of Columbia expand its publication requirements to include ballot reconciliation information.

Florida

Florida uses optical scanners statewide as the standard polling place equipment, and paperless DREs for disability access in 64 of 67 counties. Florida's ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

When voting devices have been locked after the election, poll workers tally the number of voted, spoiled, unused and provisional ballots to make sure that these tallies add up to the number of ballots issued to the precinct.¹²⁹¹ Poll workers then compare the number of votes against the total number of ballots cast, and the number of provisional ballots cast against provisional voters signed in.¹²⁹² All of the counties surveyed confirmed this practice.¹²⁹³

Reconcile vote and ballot totals and address discrepancies at the polling place

If there is a discrepancy between the number of voted, spoiled, unused, and provisional ballots and the total number of ballots received by the precinct, poll workers must report (in writing) the discrepancy to the canvassing board.¹²⁹⁴ If there is a discrepancy between the number of voters who signed in and the number of ballots cast, poll workers must conduct a recount; if a discrepancy remains, poll workers must report in writing the discrepancy to the canvassing board.¹²⁹⁵

One of the counties surveyed reported that it is "very rare" that the number of ballots does not agree with the number of voters.¹²⁹⁶ Two of the counties surveyed reported that although they sometimes find discrepancies, typically, the result is only off by one or two votes.¹²⁹⁷ One of those added that in a recent election, "[o]f 48 locations, 47 were correct, and the 47th was only off by one vote."¹²⁹⁸ When discrepancies are found, that county "ask[s] the poll workers to reconcile. If they can't, we bring in all records to the county office."¹²⁹⁹

Reconciling precinct totals to county totals, and reconcile memory cards at the county level

The county canvassing board reviews returns provided by inspectors in each precinct.¹³⁰⁰ If there are omissions or obvious errors, the county canvassing board should order a retabulation.¹³⁰¹ The canvassing board also examines the tabulation of the ballots cast against the voting machine's returns. If there is any discrepancy, the ballots are assumed to be correct.¹³⁰² If the county canvassing board determines that the unofficial returns contain a counting error in which the vote tabulation system failed to count votes that were properly marked, the board will either correct the error and retabulate the affected ballots or request that the Department of State verify the tabulation software.¹³⁰³ The state has no official policy regarding procedures to ensure that all memory cards are loaded onto the tally server.¹³⁰⁴ However, all of the counties surveyed confirmed that carry out such procedures.¹³⁰⁵ One of them explained the county's procedure as follows: "[t]he election management software keeps a permanent log of which cards are created and which ones are . . . uploaded," then the county's "3-member canvassing board verifies that all memory cards are tallied and all votes are accounted for. . . . The canvassing [board] does not submit final official results until this has been completed."¹³⁰⁶

While these practices are commendable, we recommend implementing a memory card reconciliation policy at the state level.

Immediately after certifying the election results, the county canvassing board files a return with the Department of State certifying that it has compared the number of ballots cast with the number of voters in each precinct.¹³⁰⁷ At the same time, the canvassing board must furnish a report to the Division of Elections that includes any malfunctions or problems involving software and equipment, ballots, staffing, or any other element of the election procedures.¹³⁰⁸

Making results public

The results of the vote for each candidate or question are posted at the polls as the ballot count is completed.¹³⁰⁹ The post-election report of the county canvassing board is also available to the public.¹³¹⁰

Recommendation: Florida requires three of the best practices and conducts a fourth in practice. Therefore Florida's ballot reconciliation procedures are good. The state has excellent procedures in place for ballot, vote, and voter accounting at the polling place, and for reconciling the number of votes to the number of voters at the polling place. In addition, results are posted at the polling places and the canvassing board report is also public. Even though counties report taking steps to account for all machine and tabulator memory cards, we recommend that Florida mandate that precinct totals be reconciled with composite totals at the county level. We also recommend that Florida implement a memory card reconciliation policy at the state level.

Georgia

Georgia uses paperless DREs statewide as the standard polling place equipment. Georgia's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

After closing the polls and locking voting machines, the precinct manager prints the paper results tape from each DRE.¹³¹¹ The manager then, using such system as has been established by the Secretary of State, transmits results to the county tabulating center via modem¹³¹² and removes the memory card from each voting machine.¹³¹³ The manager then completes a "ballot recap form," which shows the number of valid, spoiled and invalid, provisional and unused ballots used at the polling place.¹³¹⁴ The manager collects the zero tape, results tape and memory card for each machine and seals these materials into an envelope or container for delivery to the county tabulating center.¹³¹⁵ At the tabulating center, the elections superintendent downloads the results from each memory card to the tally server (referred to as the election management system).¹³¹⁶

Reconcile vote and ballot totals and address discrepancies at the polling place

Before tallying votes, poll workers "verify that the number of ballots cast as recorded on the tape matches the public count number as displayed on the DRE unit."¹³¹⁷ Poll workers are also required to compare the number on the public counter with the number of voters who signed in. If the numbers are not identical, the poll officers are required to document the discrepancy and any corrective action taken.¹³¹⁸ Poll workers are also required to complete the "ballot recap form" described above.¹³¹⁹

All of the counties surveyed reported comparing the number of votes cast to the number of voters in the poll book.¹³²⁰ Two added that the comparison is conducted throughout the day on Election Day.¹³²¹ One of those counties reported that if the numbers don't match, "[w]e get an explanation from the poll manager about what happened." Two counties reported that voter certificates or cards issued to voters upon entering the polls are also reconciled against tallies and poll books, as an additional cross check.¹³²²

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

Before the superintendent of elections computes the vote for any precinct, the superintendent compares the number of votes cast with the number of individuals registered in the precinct, and the number of people who voted in the precinct.¹³²³ If the superintendent finds that the number of ballots exceeds the number of voters, "such excess shall be deemed a discrepancy and palpable error and shall be investigated by the superintendent; and no votes shall be recorded from such precinct until an investigation shall be had."¹³²⁴ The Superintendent may also summon the relevant poll officers to appear immediately with their election documents and examine them. The examination "may, if the superintendent deems it necessary, include a recount or recanvass of the votes of that precinct and a report of the facts of the case to the district attorney where such action appears to be warranted."¹³²⁵

In addition, election officials compare the numbers shown on the voting machines' protective counter before the polls opened with the number on the protective counters after the polls close.¹³²⁶ If any discrepancies are noted, the superintendent must stop tabulating returns until discrepancies are resolved to her satisfaction.¹³²⁷ Returns of the votes for each candidate must also be compared. If voting machines are equipped to print paper proof sheets, officials must compare return sheets to voting machine proof sheet totals.¹³²⁸ If any discrepancies are discovered, the superintendent shall examine all of the return sheets, proof sheets, and other papers in her possession relating to the same precinct; the returns "shall be corrected so as to correspond with such proof sheets in the absence of allegation of specific fraud or error proved to the satisfaction of the superintendent."¹³²⁹

There are no provisions in Georgia's statutes or regulations regarding memory card reconciliation. However, all of the counties surveyed confirmed that memory card reconciliation procedures exist.¹³³⁰ One county reported that "[t]he exact number of memory cards for each machine in the precinct is matched against the reconciliation reports/recap reports."¹³³¹ Another county reported that "[t]he GEM tabulation system has a memory card verification report. A red error sign shows if the card has not been read. Further, the numbers from the DRE recap reports (on which poll workers record counter numbers) are compared to the numbers from the GEMS. Additionally, the unit (machine) results tapes are compared to the GEMS precinct report."¹³³² We recommend that Georgia codify rigorous procedures for verifying that all memory cards have been properly loaded onto the tally server before certifying the results of any election.

Make all results public

Upon completion, copies of election returns and DRE tape printouts are required to be posted outside each polling place.¹³³³ The counties surveyed reported varying practices of publishing results. One county reported that machine tapes are posted at each precinct" and that "results are also [available] at the courthouse," but that results are not posted on the website.¹³³⁴ Another county reported that the tabulation process is open to the public, including the tabulation of absentee ballots, and that election officials "print out combined totals, but can provide precinct breakdown[s]" when requested.¹³³⁵ The third county confirmed posting results tapes, and also reported posting results on the county website in real time, as soon as they are uploaded.¹³³⁶

Recommendation: Georgia requires three of the best practices described above, although its publication requirements appear to be limited to results posting. Georgia conducts a third in practice, therefore Georgia's ballot reconciliation procedures are generally good but need improvement in specific areas. The state has good procedures in place for basic precinct and county level accounting and reconciliations, and reconciles memory cards in practice. However, the lack of rigorous statewide memory card reconciliation procedures in a state that relies entirely on DREs makes it possible that errors and anomalies will not be discovered. We recommend that Georgia enact rigorous provisions requiring that election officials reconcile precinct totals to county totals. We also recommend that Georgia review status reports from the electronic tally server, and compare voting machine totals tapes to tally server totals to ensure that all memory cards have been read. In addition, we

recommend that Georgia expand its publication requirements to include ballot reconciliation information.

Hawaii

Hawaii uses optical scan voting systems statewide as the standard polling place equipment. Hawaii's ballot accounting and reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

In precincts where prompt tabulation at the polling place is necessary because of distance from the counting center, officials may tabulate the votes at the polling place.¹³³⁷ Poll workers must gather all records and supplies and return them to the proper county official.¹³³⁸ One of the counties surveyed reported that it has no outlying precincts.¹³³⁹ In precincts where ballots are centrally counted using automatic tabulators, officials must take sealed ballot boxes to the central counting center.¹³⁴⁰ The above-referenced county reported that election officials wait until they receive all of the sealed ballot boxes before they begin tabulation.¹³⁴¹

At the counting center, officials in a receiving team forward ballots to the inspection team,¹³⁴² poll books to the poll book audit team,¹³⁴³ and spoiled ballots to the counting center manager.¹³⁴⁴ The ballot inspection team cleans the ballots along the perforated edge and inspects them, separating those that cannot be machine-counted.¹³⁴⁵ The ballot preparation team conducts a final inspection of ballots before tabulation.¹³⁴⁶ All valid ballots are read and counted by a computer¹³⁴⁷ and sent to storage teams to be logged and sealed.¹³⁴⁸ All defective ballots are replaced by duplicate ballots which are verified and then read and counted by the computer along with the valid ballots.¹³⁴⁹ Defective ballots are logged and sealed.¹³⁵⁰

Counting center officials also receive and sign for ballots that were counted at each polling place and transfer these ballots to the storage team area.¹³⁵¹ Uncounted ballots, poll books, memory cards, zero reports and spoiled ballots are all forwarded to the proper officials.¹³⁵² Officials prepare and process memory cards¹³⁵³ and count all valid ballots by computer.¹³⁵⁴

Reconcile vote and ballot totals and address discrepancies at the polling place

The chief election officer or clerk at each central counting center audits the poll books to verify the ballots received from each precinct.¹³⁵⁵ The poll book audit team counts the number of signatures in each poll book and compares the number with the precinct turnout logged on the computer to determine overages and underages.¹³⁵⁶

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

Upon receiving election materials from precinct officials, the chief election officer, clerk, or designated representative must compare the number of ballots returned and the information recorded on the results of votes cast form with the ballot inventory and certification form and investigate any discrepancies.¹³⁵⁷ Then the county official reconciles tally sheet totals with individual tally marks and compares tally sheet totals to totals on the results of votes cast form and corrects any errors.¹³⁵⁸ The county official must make a list of all precincts that showed overages or underages in the comparison of the number of ballots to the number of

voters indicated in the poll books.¹³⁵⁹ The chief election officer or the county clerk then compiles, certifies and releases election results based on a comparison and reconciliation of the results of the initial canvass: an audit of the poll books and the overage/underage report; the results of a manual audit, the results of an absentee ballot reconciliation compiled by election officials, and all logs, tally sheets and other documents.¹³⁶⁰

With respect to memory card reconciliation, one county reported that “the memory cards come back to the county still sealed in the devices. When they arrive, our team [verifies that] the seals are intact and not tampered with, then they go into the counting room and break the seals. We keep track of all of the precincts and memory cards on a board so that we know what has come back. When the memory cards are uploaded to the software, the software allows each card to be uploaded only once.”

Make all results public

When poll workers determine the total number of votes for each candidate or question, they must make a public declaration of the total number of votes cast and the number of votes for each candidate or question.¹³⁶¹ The county list of all precincts in which ballot overages or underages occurred must be kept on file as a public record.¹³⁶² Hawaii law also requires county officials to “release” election results based on the materials examined and reconciled during the canvass.¹³⁶³

Recommendation: Hawaii requires three of the best practices, and conducts a fourth in practice. Therefore Hawaii’s ballot reconciliation procedures are good. The state has good ballot accounting procedures, some of which take place at central count locations. It also requires the reconciliation of the number of votes cast to the number of voters at the polling place, and publishes comprehensive results including ballot reconciliation information. In addition it performs strongly in the county canvass, which explicitly requires a thorough reconciliation of all totals and supporting documents, and memory cards are accounted for and reconciled in practice. We recommend only that Hawaii enact requirements explicitly mandating the reconciliation of precinct totals to composite totals. We also recommend that Hawaii mandate rigorous procedures for the reconciliation of memory cards during the canvass.

Idaho

Idaho uses optical scan voting systems as the standard polling place equipment, except that four counties use punch card voting systems and 15 counties hand count paper ballots. Idaho's ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

When the polls close, judges count the number of voters marked in the poll book as having received a ballot¹³⁶⁴ (whether in person or by absentee),¹³⁶⁵ and all ballots cast,¹³⁶⁶ including absentee ballots that election officials deliver to the polls for tabulation.¹³⁶⁷ Election officials then tally the number of votes cast, recording the results on tally books for posting at the polling place and delivery to the county clerk.¹³⁶⁸ Election judges then seal the combination election record and poll book, tally books, all ballot stubs, unused ballot books and other supplies in a suitable container and deliver them to the county clerk's office.¹³⁶⁹

In counties that send ballots to a central count location for tabulation, the ballots and other elections materials are sealed and sent to the county without first being tallied.¹³⁷⁰ A county that performs central counting confirmed this practice, adding that “[t]he poll workers at each precinct fill out an accounting page on the poll book to account for every ballot,” and “list the number of ballots they started with, the number of ballots issued, and the number of spoiled ballots.”¹³⁷¹ Then they seal all of the ballots into a transfer case and deliver it to the courthouse.¹³⁷²

Reconcile vote and ballot totals and address discrepancies at the polling place

Before counting the ballots at the polling place, poll workers compare the number of voted and spoiled ballots to the number of voters marked as having received a ballot on the poll lists.¹³⁷³ One of the precinct-count counties surveyed confirmed that this comparison is done at the polling place.¹³⁷⁴ Another county reported that it is the “county staff [who] check the ballots against number of voters before sending these to be canvassed.”¹³⁷⁵ The county that performs central counting reported that, after the ballots are delivered to the courthouse as described above, election officials “check that the number of ballots listed on the case matches the number of voted ballots in the poll books,” then “run the voted ballot cards through our counter and verify that the number counted matches the number in their poll book and ballot transfer case.”¹³⁷⁶ Election judges have the authority to take action to reconcile any discrepancies, but they may not void any ballots cast.¹³⁷⁷ State election officials also report that unused ballots are included in this reconciliation, and that the total number voted, spoiled, and unused ballots must be reconciled with the number of ballots sent to each precinct.¹³⁷⁸

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county board of canvassers examines precinct-by-precinct statements of the total number of votes for each candidate or question, and certifies that the statement is true.¹³⁷⁹ While all precinct counts are examined and verified at the county level, there are no statutory requirements mandating reconciliation of vote or ballot totals at the county level. The

Secretary of State, however, requires the reconciling of the number of voters with the number of votes cast, and reconciling precinct totals with composite totals.¹³⁸⁰ The importance of standardized reconciliation measures cannot be overstated; We recommend comparing precinct totals to countywide totals and taking other measures to ensure that every ballot sent to the precincts and every vote cast at the precincts are accounted for. All of the counties surveyed for this report reported that the state does not use a state or local tally server.¹³⁸¹

Make all results public

Tallies of votes cast at each polling place are posted outside the polling site in the same form that this information is transmitted to the county clerk.¹³⁸² The Secretary of State's office reports that "[c]ounties also post unofficial results on their websites and submit unofficial results to the Secretary of State for posting on the election night reporting page of the Secretary's website."¹³⁸³ All counties also reported releasing results to the media, or to the public upon request, or posting results publicly.¹³⁸⁴

Recommendation: Idaho requires three of the best practices, although its publication requirements appear to be limited to results posting. In addition, it does not use a tally server, making memory card reconciliation unnecessary. Therefore Idaho's ballot reconciliation procedures are good. The state has good procedures in place for ballot and voter accounting at the precinct level, and the Secretary of State requires the reconciliation of precinct totals to composite totals at the county level. Although election officials have the authority to reconcile discrepancies at the precinct level, we recommend that Idaho explicitly require them to reconcile the number of votes cast with the number of voters who signed in at the polling place. We also recommend that Idaho take other measures to ensure that every ballot sent to the precincts and every vote cast at the precincts is accounted for. In addition, we recommend that Idaho expand its publication requirements to include ballot reconciliation information.

Illinois

Illinois uses optical scan voting systems statewide as the standard polling place equipment, except that one county uses VVPAT-equipped DREs. Illinois' ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

Immediately upon the closing of the polls, poll workers, referred to as judges, count the whole number of ballots cast before tallying the votes for each candidate or question and record the results on their own tally sheets and certificates of results.¹³⁸⁵ All spoiled, unused, defective and duplicated ballots are separated, tallied, and sealed in their own envelope.¹³⁸⁶ According to the Board of Elections, election officials at every polling place must complete a "Statement of Ballots" form, on which all ballots cast (regular and provisional) are accounted for, and must equal the number given to voters at the polling place, and which "requires that all voted ballots [be] reconciled" including "all spoiled, defective, damaged, excess, [and] unused ballots."¹³⁸⁷ One county surveyed confirmed the foregoing.¹³⁸⁸

Whether precincts use optical scan or DRE voting machines as their primary system, officials tabulate totals for all candidates and propositions, and print an "In-Precinct Totals Report" from the automatic tabulating equipment for delivery to the election authority; in addition, if requested, they also deliver these materials to other pollwatchers authorized to be present for the counting of ballots.¹³⁸⁹ Results are totaled and discrepancies between the number of votes and voters are corrected immediately¹³⁹⁰ or, where DREs are used, judges shall "contact the offices of the election authority in charge of the election for further instructions."¹³⁹¹

Where optical scanners are used, judges must then seal and sign bundles of counted and spoiled, unused, or defective ballots and deliver them to county election officials.¹³⁹² Where DREs are used, the total number of absentee ballots is counted, and when so instructed by the election authority, the judges "shall cause the tabulated returns to be transmitted electronically to the offices of the election authority via modem or other electronic medium."¹³⁹³

Reconcile vote and ballot totals and address discrepancies at the polling place

Most Illinois counties use optical scanners¹³⁹⁴ and in those counties if the whole number of ballots cast at a polling place exceeds the number of voters who received ballots (that is, exceeds the number of "ballot applications"¹³⁹⁵), "the ballots shall be replaced in the box, and the box closed and well shaken and again opened and one of the judges shall publicly draw out so many ballots unopened as shall be equal to such excess."¹³⁹⁶ The excess ballots must be marked as such and cannot be counted, though their existence must be recorded in the certificate of results.¹³⁹⁷ In other words, the number of ballots counted will be equal to "the number of the ballots agreeing with the poll lists"¹³⁹⁸ (that is, "equal to the number of voters on the ballot applications"¹³⁹⁹) but exactly which ballots are counted will be left to random chance. Because this practice lends itself to ballot box stuffing, it is unsatisfactory as a reconciliation measure. We recommend outlawing this practice. The respondent for one county surveyed reported that having "an excess of votes in the ballot box . . . has never

happened in the fifteen years she's been involved with elections, nor in the one and a half years she's been clerk.”¹⁴⁰⁰

As noted above, where DREs are used, if the number of votes cast on the machine does not equal the number of voters, judges shall “contact the offices of the election authority in charge of the election for further instructions.”¹⁴⁰¹

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county clerk canvasses the results from each precinct and develops a county canvass¹⁴⁰² and an abstract of the votes, which she reports to the State Board of Elections.¹⁴⁰³

According to the election code, where optical scanners are used, county election officials receive ballots at a central count location, where they reconcile the number of ballots delivered with the number of voters who voted in the precinct, before delivering them to the automatic tabulator.¹⁴⁰⁴ Officials note any discrepancies between the number of ballots and the number of voters.¹⁴⁰⁵ According to the Board of Elections, “[i]n Illinois only early vote ballots, absentee ballots and provisional ballots are tabulated centrally.”¹⁴⁰⁶

Where DREs are used, “[w]hen a discrepancy exists during the canvass of votes between the unofficial results and the certificate of results, or . . . between the certificate of results and the set of totals reflected on the certificate of results, the ballots for that precinct shall be audited to correct the return.”¹⁴⁰⁷ The code distinguishes “ballots” from the “permanent paper records” printed by DREs.¹⁴⁰⁸ In addition, there are no standardized procedures for comparing precinct totals to composite totals, nor for reconciling memory cards used with those loaded onto the tally server where applicable.¹⁴⁰⁹ One county surveyed reported that “the totals are broken down by precinct and they are reconciled with the county totals” and that “[m]emory cards also get reconciled,” and that the county carries out all reconciliation procedures required by the Board of Elections.¹⁴¹⁰ We recommend reconciling precinct totals with composite totals and ensuring that all memory cards are properly loaded onto the tally server.

Make all results public

Whether optical scanners or DREs are used, one copy of the “In-Precinct Totals Report” described above must be printed and posted in a conspicuous location inside the polling place.¹⁴¹¹ In addition, “a reasonable number of pollwatchers shall be admitted to the counting location.”¹⁴¹² Precincts report the result of their canvass to the county clerk, who is obligated by law to post the results in a public place.¹⁴¹³ In addition, election judges “shall provide, if requested, a set [of reports] for each authorized poll watcher or other official authorized to be present in the polling place to observe the counting of ballots” and “sufficient time shall be provided by the judges of election to the poll watchers to allow them to copy information from the copy which has been posted.”¹⁴¹⁴ In addition, “[t]he computer operator's log and canvass shall be available for public inspection in the office of the election authority for a period of 60 days following the proclamation of election results.”¹⁴¹⁵ One county surveyed reported that it posts results at the polling place, and also

publishes vote broken down by candidate, a statement of votes cast; a “card cast report” and an election summary report.¹⁴¹⁶

Recommendation: Illinois requires three of the best practices. However, while it requires a reconciliation of the number of votes cast to the number of voters at the polling place, it resolves discrepancies by removing excess ballots at random where optical scanners are used. We recommend that Illinois outlaw that practice, and establish a similar prohibition where DREs are used. Illinois conducts a fourth best practice although the law does not require it. Therefore, Illinois’ canvassing procedures are generally good but need improvement in specific areas. While the state has good procedures for accounting for all ballots at the polling place, and for publishing results, and to some extent, reconciling memory cards, we recommend that Illinois enact rigorous requirements mandating that election officials reconcile precinct totals with composite totals and adopt procedures to ensure that all memory cards are properly loaded onto the tally server.

Indiana

Indiana uses paperless DREs and paperless DREs combined with optical scanners statewide as the standard polling place equipment, except that six counties use only optical scanners. Indiana's ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

Indiana law provides detailed procedures for the counting of ballots generally,¹⁴¹⁷ including procedures for hand counting paper ballots.¹⁴¹⁸ An optical scan county surveyed reported that the ballots “are read/counted through the machine but then counted by hand to make sure it matches up.”¹⁴¹⁹

In precincts that use optical scanners, after marking devices have been secured against further voting, election officials first “open the ballot box and count the number of ballot cards . . . to determine whether the number of cards cast exceeds the number of voters shown on the poll lists,” then reconcile discrepancies as set forth below.¹⁴²⁰ In jurisdictions that are equipped to tabulate ballots in the precinct, the board processes all ballot cards through the tabulating machine, certifies the total shown by the tabulating system,¹⁴²¹ and delivers a copy of the certified totals, the sealed ballot box, and all unused, uncounted, and defective ballots and returns to the circuit court clerk.¹⁴²² Otherwise, election officials place all of the voted ballots into a sealed container and deliver it, along with all unused, uncounted, and defective cards and returns, to the central counting location.¹⁴²³ Then, the counting of ballots begins immediately and continues until completed and certified totals are issued and delivered to the circuit court clerk.¹⁴²⁴ The county that uses optical scanners confirmed that, and added that “[t]hey run the tapes at the polling place and return the results to the court house, where they enter the results into the computer.”¹⁴²⁵

In precincts where DREs are used, after the machines have been secured against further voting, election officials print a paper copy of the vote totals, then “announce in a distinct tone of voice that the printouts are available for inspection by the members of the precinct election board and any watchers present within the polls;” such members and watchers may then “inspect and copy the printouts to document the votes cast for . . . each candidate . . . and . . . each public question.”¹⁴²⁶ When all votes have been counted, the precinct election board prepares a certificate stating the number of votes for each candidate or question, and attaches it to the printout.¹⁴²⁷ Both of the DRE counties surveyed confirmed the foregoing,¹⁴²⁸ and one of them added that “[w]e have a certificate of the machine tally that says [what] the “seal number was” [and that it] had this many votes on it, etc. That is put in the same envelope as the tally tapes.”¹⁴²⁹

Whether precincts use ballot cards or DREs, election officials must also deliver copies of the certificate and list of voters to the county elections board by midnight on Election Day; if there was a failure of the voting system, then all certificates, lists of voters and tally papers must be delivered as soon as possible.¹⁴³⁰ All of the counties surveyed confirmed this practice.¹⁴³¹ One county that uses optical scanners clarified that it had never had a machine failure.¹⁴³² One of the counties that uses DREs reported that election officials “are usually finished by nine o'clock p.m.”¹⁴³³ The other reported that they are usually “done by 8:30” and clarified that “[a]ll of our results are brought back to the judicial building here.”¹⁴³⁴

Reconcile vote and ballot totals and address discrepancies at the polling place

Where ballot cards are used, the first step of the canvass at the precinct level requires the inspector to count the number of ballot cards to determine whether the number of cards cast exceeds the number of voters shown on the poll lists.¹⁴³⁵ If there is a discrepancy, it must be reported in writing to the appropriate election officer, “together with the reasons for the discrepancy, if known.”¹⁴³⁶

The Indiana code does not include the same requirement for precincts where DREs are used, but, as noted above, election officials in DRE precincts are required to deliver a certified list of voters to the county election board by midnight on Election Day. One of the counties that uses DREs reported that “Clerks count signatures on the poll list, and compare it to ballots cast.”¹⁴³⁷ Another county that uses DREs reported that election officials “get the machine total and count signatures to make sure it matches.”¹⁴³⁸

Indiana law also provides that: “[b]allot card voting systems must rely on the retention of ballots as a redundant means of verifying or auditing election results” and that electronic voting systems “must incorporate multiple memories;” that voting systems must record the date and time of “normal and abnormal events” and must “detect and record significant events,” including “time-dependent or programmed events that occur without the intervention of the voter or a polling place operator;” and that audit records “must reflect all of the idiosyncrasies of a system.”¹⁴³⁹

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county election board carefully examines and compares the certificates, poll lists, and tally sheets and aggregates the vote for its jurisdiction based on totals furnished by each precinct.¹⁴⁴⁰ Counties are not required by law to reconcile precinct totals with county totals, but both of the DRE counties confirmed conducting both of the foregoing procedures.¹⁴⁴¹ One added that “[o]ur results come in on a card,” then those are loaded into the system and absentee ballots are added, then results are “matched up with the precinct totals through the system.”¹⁴⁴² We recommend reconciling precinct totals to composite totals during the county canvass.

With respect to memory card reconciliation procedures, one of the counties that uses DREs reported that “[c]ards are assigned by precinct” and that “when the memory cards come back, they are checked against what was sent out.”¹⁴⁴³ The other county that uses DREs reported that memory cards are tracked both by the system and manually. That county added that “our system actually logs [the memory cards] and we mark them off as they come in. Let’s say precinct 1 has 3 machines with memory cards and only 2 come back, the system flags that and at the end of the night we need to get the missing memory card.”¹⁴⁴⁴ We recommend adopting universal standards for memory card reconciliation Indiana and any state where counties use electronic voting systems.

Make all results public

Immediately upon completion of the vote count in all precincts, precinct election board officials must record the vote totals for each candidate or question on a certificate, which is delivered to the news media.¹⁴⁴⁵ In precincts using optical scanners, the return printed directly from the optical scanners, along with the return of votes by absentee and provisional voters, constitute the official precinct returns, and these documents will be released to the public upon completion of the count.¹⁴⁴⁶ In addition, proceedings at central count locations must be open to the public.¹⁴⁴⁷ In precincts using DREs, election officials print a paper copy of the vote totals, announce that the results are available for inspection, and allow poll watchers to “inspect and copy the printouts.”¹⁴⁴⁸ In each case, the circuit court clerk also makes the results available to the media.¹⁴⁴⁹ Counties also release the results of the county canvass to the public. Both of the counties that use DREs generally confirmed that they follow these requirements.¹⁴⁵⁰

Recommendation: Indiana requires two of the best practices recommended in this report, and implements two more in practice. Counties that use optical scanners require reconciling the number of votes cast to the number of voters at the polling place, and the counties that use DREs do that in practice. Therefore, Indiana’s ballot reconciliation procedures are good. The state has good procedures in place for making results public, and for requiring a reconciliation of votes to voters at the polling place where optical scanners are used. We recommend that Indiana enact the same requirement where DREs are used, enhance its polling-place ballot accounting procedures. We also recommend that Indiana enact rigorous requirements mandating that election officials reconcile precinct totals to composite totals during the county canvass, and that it adopt universal standards for memory card reconciliation.

Iowa

Iowa uses optical scanners statewide as the standard polling place equipment. Iowa's ballot reconciliation procedures are **excellent**.

Account for all ballots, votes, and voters at the polling place

After the close of the polls, votes are tallied electronically at the polling place.¹⁴⁵¹ Election officials publicly canvass the vote, tally the votes for each candidate, ascertain the final result, take note of any errors or discrepancies in the election register, and election board members from different political parties each keep a tally list.¹⁴⁵² Officials also record the number of spoiled, unused¹⁴⁵³ and over-voted or under-voted ballots.¹⁴⁵⁴ According to the Secretary of State's Office, official tally and record the quantity of ballots cast and the quantity of voters reported in the election register.¹⁴⁵⁵ Election officials then publicly announce the number of votes recorded for each candidate and for and against each question, and then forward those results to the county commissioner of elections.¹⁴⁵⁶

The counties surveyed reported varying practices. One confirmed that it follows statutory requirements.¹⁴⁵⁷ Another county confirmed that election officials record the number of spoiled and unused ballots, but not the over-voted or under-voted ballots, and also clarified that election officials keep only one tally list and do not record the quantity of ballots cast and the number of voters in the election register.¹⁴⁵⁸ A third confirmed that it also follows statutory requirements but clarified that political party representatives keep a tally list if present, and otherwise that "one Republican and One Democrat election worker collects everything and they bring it back to [the county auditor];" in addition, that county clarified that "[a]ll we do in the election register is total the number of voters who voted" and then "[t]hat number is compared to number of ballots cast" and discrepancies are reconciled in a tally book.¹⁴⁵⁹

Reconcile vote and ballot totals and address discrepancies at the polling place

The precinct board reconciles the number of voters who signed in with the number of ballots cast; if there is a discrepancy, officials must certify the discrepancy, with the number of the excess, on the precinct return.¹⁴⁶⁰ All of the counties surveyed confirmed that they follow the foregoing requirements.¹⁴⁶¹ Poll workers must record and reconcile the total number of ballots received at the polling place with the total number of voted, disputed, spoiled, provisional and unused ballots returned.¹⁴⁶²

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county board of supervisors meets as the board of canvassers on the first Monday or Tuesday after the election to prepare an abstract of precinct tallies.¹⁴⁶³ The board reviews the tallies and corrects any obvious clerical errors.¹⁴⁶⁴ The board forwards its abstract to the Secretary of State.¹⁴⁶⁵ Two of the counties surveyed confirmed that they follow these statutory requirements,¹⁴⁶⁶ and one clarified that "[o]nly State and Federal elections are forwarded to the Secretary of State."¹⁴⁶⁷ The Secretary of State must also prepare an abstract,¹⁴⁶⁸ which the canvassing board reviews for accuracy.¹⁴⁶⁹ The abstract should

compare precinct reports to the county abstracts and address any discrepancies.¹⁴⁷⁰ Two of the counties surveyed confirmed that the foregoing reflects actual.¹⁴⁷¹

The canvassing board also compares results reports from officials in precincts where memory cards are used against results of the compiled canvass results (either manually or electronically) in order to verify that the totals of each report match the results witnessed by the election officials. Any discrepancies in the totals must be reconciled before the supervisors conclude the canvass.¹⁴⁷² The counties surveyed reported various practices. One reported that “[e]ssentially [election officials] are supposed to do that” and that “[n]ormally they look at it and sign off on it.” In addition, that county reported that it “[has not] had to make any corrections in the past.”¹⁴⁷³ Another county confirmed that it also follows the statutory mandate, and that “[w]e have a server and we enter the results into the data base, [the database] prints out a tally and that tally is compared with the precinct tally.”¹⁴⁷⁴ A third reported that in a state, federal or county election “[w]e use the election equipment and load the memory card;” “[i]n a city election we would do a hand count;” that the county does not use a tally server but rather a “stand-alone computer” and that the county “export[s] from the computer a file which [it] uploads to Secretary of State.”¹⁴⁷⁵

Make all results public

Tally sheets, ballot records and other documents are public record and are open to public inspection.¹⁴⁷⁶ In addition, all canvasses (precinct, county, and state) are open to the public.¹⁴⁷⁷

Recommendation: Iowa requires all five of the best practices summarized above. Therefore, Iowa’s ballot reconciliation procedures are excellent. Ballots and votes are fully accounted for and reconciled at the polling place and the county level, and Iowa is one of a very few states with formal memory card reconciliation procedures in its code. We recommend only that Iowa ensure that all counties rigorously carry out all of the best practices required by its election code.

Kansas

Kansas uses a combination of optical scan systems and paperless DREs as the standard polling place equipment, except that four counties use VVPAT-equipped DREs. Kansas' ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

In precincts where ballots are hand-counted, a poll worker (referred to as a judge) shall remove ballots from the ballot box and read the votes aloud; those votes are then recorded by a clerk.¹⁴⁷⁸ A judge also announces void and blank ballots.¹⁴⁷⁹ After all votes are counted, the election board prepares an abstract of the results that is submitted to the county canvassing board,¹⁴⁸⁰ and returns all tally sheets, poll books and other election materials to the county.¹⁴⁸¹ All of the counties surveyed confirmed the foregoing.¹⁴⁸²

In precincts using optical scanners, as soon as the polls close, "the supervising judge shall count the number of ballots . . . that have been cast to determine that the number of ballots equals the number of voters shown on the poll book."¹⁴⁸³ Election judges then print returns, and "[t]he return printed by the optical scanning equipment, to which has been added the return of write-in and advance voting votes and manually counted votes, shall constitute the official return of each precinct or voting area."¹⁴⁸⁴ Unless ballots are counted at the precinct, the election judge places all cast ballots in a sealed container and delivers it to the central counting location together with the provisional, unused, void and defective ballots and returns.¹⁴⁸⁵ Both of the optical scan counties surveyed confirmed the foregoing.¹⁴⁸⁶

Where DREs are used, election judges are also required to count the number of ballots cast to determine whether or not it equals the number of voters shown on the poll books.¹⁴⁸⁷ Election judges then print returns, and "[t]he return printed by the automatic tabulating equipment, to which has been added the return of write-in and advance voting votes and manually counted votes, shall constitute the official return of each precinct or election district,"¹⁴⁸⁸ and return all materials to the central counting location as above.¹⁴⁸⁹ The DRE county surveyed confirmed the foregoing.¹⁴⁹⁰

Reconcile vote and ballot totals and address discrepancies at the polling place

From time to time while conducting the initial canvas, clerks will compare tally sheets and reconcile any differences to the satisfaction of the majority the election board present.¹⁴⁹¹ Poll workers are also required by law to reconcile the number of voted, spoiled, and unused ballots returned with the number issued to the precinct.¹⁴⁹² All of the counties surveyed confirmed the foregoing.¹⁴⁹³ In jurisdiction where optical scanners are used, "as soon as the polls are closed, the supervising judge shall count the number of ballots . . . cast to determine that the number of ballots equals the number of voters shown on the poll book. If there is a discrepancy, this fact shall be reported in writing to the county election officer with the reasons therefor if known."¹⁴⁹⁴ The same requirement applies where DREs are used.¹⁴⁹⁵

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county board of elections conducts an intermediate canvass.¹⁴⁹⁶ The county election officer first inspects the abstracts and tally sheets from each precinct, and “shall prepare a combined tabulation of the vote totals for each candidate and question submitted showing therein the votes at each voting place;” this is called a preliminary intermediate abstract.¹⁴⁹⁷ The results of the preliminary intermediate abstracts are presented to the county board of canvassers, together with the ballots and other election records returned by the election boards, and the county board of canvassers inspects the records corrects errors.¹⁴⁹⁸ The county board of canvassers also reviews the poll books, and can order a recount if it finds errors that might affect the election's outcome.¹⁴⁹⁹ After the intermediate canvass, the county board of canvassers certifies the abstract and transmits it to the Secretary of State.¹⁵⁰⁰ The county includes precinct totals in this abstract, and the Secretary of State's office reviews these totals and reconciles them with countywide totals when producing final election results.¹⁵⁰¹ All of the counties surveyed confirmed the foregoing.¹⁵⁰²

With respect to memory card reconciliation, the counties reported varying practices. One of the optical scan counties reported that it doesn't use them,¹⁵⁰³ and the DRE county reported only that the memory cards are stored in a vault following the election.¹⁵⁰⁴ The other optical scan county, however, reported that “[o]n election night the cards are pulled and downloaded into data base and if anything must be hand counted it is done as a manual entry and it is certified and given to the canvassers.”¹⁵⁰⁵ While this is commendable, Kansas does not have uniform or rigorous memory card accounting and reconciliation practices and we recommend that the state adopt uniform procedures for memory card reconciliation.

Make all results public

Where optical scanners are used, “[u]pon completion of the count the returns shall be open to the public” and “[a] copy of the returns shall be posted at the office of the county election officer.”¹⁵⁰⁶ Where DREs are used, “[u]pon completion of the count the returns shall be open to the public” and “[a] copy of the returns shall be posted at the central counting place or at the office of the election officer in lieu of the posting of returns at the individual precincts.”¹⁵⁰⁷ In either case, to the extent that counting takes place at a central counting location, proceedings at that location shall be open to the public.¹⁵⁰⁸ The results of the county canvass are kept in the county elections officer's office and constitute the permanent record.¹⁵⁰⁹ Two of the counties reported that they do not post results to a website,¹⁵¹⁰ but the third reported that it does.¹⁵¹¹

Recommendation: Kansas requires four of the best practices summarized above, although its polling place accounting requirements appear to focus more on gathering and return election materials than accounting for them and its publication requirements appear to be limited to results posting; some counties may conduct the fifth best practice (memory card reconciliation) in practice; therefore Kansas' ballot reconciliation procedures are good. The state has good procedures in place for both precinct-level and county-level reconciliations, though we recommend that Kansas enhance its polling place accounting requirements, and that the practice of reconciling all memory cards with tally server totals be standardized and

adopted as official state policy. In addition, we recommend that Kansas expand its publication requirements to include ballot reconciliation information.

Kentucky

Kentucky uses paperless DREs and a combination of optical scanners and paperless DREs statewide as the standard polling place equipment. Kentucky's ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

At the close of polls, precincts using paper ballots open the ballot boxes and count the total number of ballots. Precinct officials separate invalid and damaged ballots and certify the number of ballots to be sent to the central count location. After inspecting all ballots, election officials certify the number of ballots issued to the precinct, and the number of voted, spoiled and unused ballots. Precinct officials then seal all election materials for delivery to county officials and sign a certified statement of the number of voters who signed in on the poll list, the number of ballot cards submitted for tabulation, and discrepancies in ballot reconciliation, and other precinct information. All materials are delivered to the county clerk. The county board of elections receives and tallies ballots at a central count location.¹⁵¹² After all ballots are tallied and accounted for, the certifying board completes a statement of returns and re-seals the ballots. Although the foregoing provisions were based on regulations that are no longer current, two optical scan counties confirmed that the procedures described reflect actual practice.¹⁵¹³

In precincts using DRE voting machines as the standard polling place equipment, judges lock machines against further voting, sign a verification statement that the voting equipment has been locked and sealed, and record the number of voters shown on the public counters and the number on the protective counter of each device, and the number assigned to the voting device.¹⁵¹⁴ The judges shall then compare the number of voters with the number of votes as shown by the protective or accumulative counter.¹⁵¹⁵ Precinct election officers are required to sign the printed return sheets that show the candidates' names along with the total votes received on a return sheet, the precinct election officers shall sign the return sheets.¹⁵¹⁶ If any officer is unwilling to sign the return sheet, he or she is required to state the reason in writing, sign it, and enclose a copy of the statement with the return sheet.¹⁵¹⁷ Each of the return sheets is placed in an envelope, and one copy is sent to the county board of elections, one copy is given to the county clerk, and one copy is given to each of the two political parties.¹⁵¹⁸ The envelope is required to contain a certificate of the election officers stating the number assigned to the machine, the precinct where it has been used, the number on the seal, and the number on the protective counter at the close of the polls.¹⁵¹⁹ The DRE county surveyed confirmed the foregoing.¹⁵²⁰ One of the optical scan counties also generally confirmed the foregoing but reported that election officials "don't send the results to the parties but rather post the results at the polling places."¹⁵²¹

Following tabulation of votes cast in the election, including absentee and write-in votes, the county board is required to mail a copy of the precinct-by-precinct summary of the tabulation sheets showing the results of each precinct to the State Board of Elections, and the county clerk is required to mail the precinct signature rosters from each precinct to the State Board of Elections.¹⁵²²

Reconcile vote and ballot totals and address discrepancies at the polling place

Before any votes are counted, officials at precincts that use ballots count the total number of ballots, compare it against the number of voters who signed the poll list, and explain any discrepancies.¹⁵²³ Regulations also require officials at precincts using DREs to compare the number of voters on the poll list with the public counters on devices periodically throughout the day.¹⁵²⁴ After all ballots have been tallied at the central count location, the certifying board reconciles the number of ballots tallied with the number of ballots that each precinct reported submitting to the county for tally.¹⁵²⁵ The board must reconcile or explain any discrepancies.¹⁵²⁶ All of the counties surveyed confirmed the foregoing.¹⁵²⁷

Precinct officials use a ballot accountability statement created by the county clerk provided along with the ballots issued to each precinct which includes an accounting of the total number of ballots used, unused, and spoiled on Election Day.¹⁵²⁸ The accountability statement is required to be signed by all four precinct election officers, and includes an accounting of the total number of ballots returned to the county clerk at the end of the Election Day and a place to explain any discrepancies.¹⁵²⁹

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The precinct canvass constitutes the official results, unless the county board of elections notices any discrepancy in the precinct tallies or a candidate requests a recanvass in writing.¹⁵³⁰ If a recanvass is requested, the county recounts the votes on each machine, using procedures designed for the type of machine used in the election,¹⁵³¹ and all absentee ballots attributable to the precinct and corrects all records accordingly if necessary.¹⁵³² The county board of elections must report the machine votes, absentee votes, write-in votes and all vote totals for each candidate.¹⁵³³ All of the counties surveyed confirmed the foregoing.¹⁵³⁴

The State Board of Elections reports that “it recommends that county boards of election adopt reconciliation procedures, including reconciling precinct totals with county totals and reviewing tally vote totals to ensure that all memory cards have been read.”¹⁵³⁵ One of the optical scan counties surveyed did not report reconciling memory cards,¹⁵³⁶ but the other reported that election officials “put the card into a card reader which creates a report that they then print which is then compared to the tapes.”¹⁵³⁷ The DRE county surveyed reported that “[w]e use software provided by the manufacturer of the machines coupled with manual verification procedures. In addition, we are required to report the results to the Secretary of State and the State Board of Elections.”¹⁵³⁸ Rigorous county canvass procedures are necessary. We recommend adopting uniform county ballot reconciliation procedures, including reconciling precinct totals with county totals and reviewing tally server status reports to ensure that all memory cards have been read.

In jurisdictions that use paper ballot voting systems, the county clerk places the paper ballots in a container for each precinct, places into the container a signed certificate recording the total number of ballots in the container and certifying that the ballots were counted and sealed by the county clerk, and secures the container with a seal.¹⁵³⁹ Ballots not issued to a precinct or assigned for use as absentee ballots are required to be secured and accounted for

by the county clerk, and the clerk is also required to maintain a record of the number of ballots and serial numbers of the voting systems issued to each precinct.¹⁵⁴⁰

Make all results public

Immediately after the vote has been ascertained, the results are posted on the door of the polling place.¹⁵⁴¹ Representatives of the news media are authorized to witness all vote counts and recanvasses.¹⁵⁴²

Recommendation: Kentucky requires three of the best practices, and the State Board of Elections recommends two others, which some counties report carrying out. Therefore, Kentucky's ballot reconciliation procedures are good. While the state has good procedures in place for vote and ballot accounting and reconciliation at the precinct level, its county-level canvass is unstandardized; although the State Board of Elections recommendations are helpful, this still leaves opportunity for inadequate review of precinct totals. We recommend that Kentucky adopt uniform county-level ballot reconciliation procedures, including requiring that the reconciliation of precinct totals with county totals and the review of tally server status reports to ensure that all memory cards have been read.

Louisiana

Louisiana uses paperless DREs statewide as the standard polling place equipment. Louisiana's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

At the close of the polls, elections commissioners "produce four identical official election results reports" from each voting machine at the precinct.¹⁵⁴³ The commissioners "examine, sign and certify each set," and complete certificates that state, among other information, the number on the public voting machine counter, the total number of votes cast on that machine, and the number shown on the protective counter.¹⁵⁴⁴ All of the parishes surveyed confirmed the foregoing.¹⁵⁴⁵

Officials then sign and certify the correctness of the duplicate poll lists, announce the results of the election in the order the offices, candidates, and propositions are listed on the ballot, and seal all duplicate identification affidavits of voters, any address confirmation cards, and other elections documents into an envelope, attach it to the precinct register, and seal the register.¹⁵⁴⁶ They then seal any original precinct register corrections, any original challenges of voters, the zero proof sheet, one copy of the official election results reports, one of the duplicate poll lists, and a copy of the machine certificates in an envelope that is attached to or placed in the voting machine with the sealed precinct register.¹⁵⁴⁷ The elections commissioners then send the Secretary of State one copy of the official election results reports, the poll list and the machine certificate.¹⁵⁴⁸

The Secretary of State generally confirmed all of the foregoing.¹⁵⁴⁹ All of the parishes surveyed reported in addition that they account for all ballots, including emergency, provisional, unused and spoiled ballots,¹⁵⁵⁰ although one clarified that "since I have been here in 4 years we have only needed one paper ballot at the polls" because "[o]ur technicians are pretty good at fixing the machines."¹⁵⁵¹

Reconcile vote and ballot totals and address discrepancies at the polling place

Although a copy of the poll list is mailed to the Secretary of State,¹⁵⁵² the Secretary uses the compilation of votes statements prepared by the parish board and transmitted by the clerk of court to certify the vote.¹⁵⁵³ The board is required to certify that the poll lists are correct,¹⁵⁵⁴ and to certify the number of voters shown on each machine's public counter indicating the number of votes cast thereon,¹⁵⁵⁵ but not to reconcile discrepancies between the two. Two of the parishes surveyed reported that they reconciled the number of votes cast with the number of voters who signed in,¹⁵⁵⁶ and a third thought the reconciliation was done,¹⁵⁵⁷ although one of the parishes that confirmed it clarified that it was the Registrar of Voters that conducts that reconciliation.¹⁵⁵⁸ This comparison is a crucial element of ballot reconciliation.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The clerk of court, in the presence of the parish board of election supervisors, is required to verify the total votes cast for each candidate or question as shown on the voting machines or voting machine election result.¹⁵⁵⁹ The machine votes cast will be recorded separately by each precinct.¹⁵⁶⁰ The parish board is charged with preparing two statements of the election returns, which show the machine votes for each candidate, the total absentee by mail and early voting votes for each candidate, the total provisional votes for each candidate for federal office, and the total of all votes for each candidate.¹⁵⁶¹ The board may – but is not required to – attach to this statement a report of any irregularities associated with the security of the polling place, the security of the voting machines, the physical condition of the machines, the physical condition of the other election materials, the substantive contents of the election materials, and any other matter affecting the verification of the vote totals.¹⁵⁶²

None of the parishes surveyed reported reconciling precinct totals with county totals.¹⁵⁶³ All of the parishes reported that they upload memory cards by way of a procedure established by the Secretary of State,¹⁵⁶⁴ and one elaborated by saying “[t]he memory cards are all accounted for and tabulated in our central tabulating system.”¹⁵⁶⁵

Make all results public

After the official election results reports have been run from machines at each polling place and examined by election officials, officials are required by law to announce the results of the election and post the results of the election at a conspicuous place at the polling place for public viewing.¹⁵⁶⁶ All of the parishes surveyed reported posting results at the polling place,¹⁵⁶⁷ and two of them also reported publishing the county canvass reports.

Recommendation: Louisiana requires two of the best practices, but polling place accounting appears to be stronger in practice than as required by law, and with respect to publication, it only requires posting of precinct results although some parishes also publish the county canvass; therefore Louisiana’s ballot reconciliation procedures are generally good but need improvement in specific areas. We recommend that Louisiana enhance its polling place ballot accounting procedures, and require that the number of votes cast be reconciled with the number of voters who are marked in the poll books as having voted. Additionally, we recommend that the state enact rigorous requirements mandating that election officials reconcile precinct totals to county totals. In addition, with respect to all voting systems that use memory cards, but especially with respect to paperless DREs, which are used throughout Louisiana, we recommend that Louisiana enact rigorous requirements mandating that election officials review tally server reports to ensure that all memory cards have been properly recorded. Finally, we recommend that Louisiana expand its publication requirements to include ballot reconciliation information.

Maine

Maine uses optical scan voting systems statewide as the standard polling place equipment. Maine's ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

At the close of polls, all ballots are separated and tallied in a manner specified by the Secretary of State.¹⁵⁶⁸ Spoiled ballots are separated but not tallied.¹⁵⁶⁹ In precincts where ballots are counted by hand, pairs of poll workers separate the ballots into lots of 50 ballots, tally the ballots and record the tallies for each lot on separate tally sheets, then wrap the lots into the applicable tally sheets.¹⁵⁷⁰ The tally sheets for each lot must be in complete agreement.¹⁵⁷¹ Where applicable, precincts are also required to run an official totals tape from an electronic tabulation system and return that document to the municipal clerk, along with all tabulation sheets and all used, spoiled, defective, void and rejected ballots.¹⁵⁷² Counted ballots shall be “wrapped with their tabulations if hand counted or loose if machine tabulated.”¹⁵⁷³ All of the election officials surveyed confirmed the foregoing.¹⁵⁷⁴ Unused ballots are canceled and sealed in a separate container.¹⁵⁷⁵

The warden and one election clerk from each of the major parties then sign and seal the certified list of voters who checked in on the poll lists, which includes a list of voters who submitted absentee ballots.¹⁵⁷⁶ The warden then delivers the ballots and lists to the municipal clerk immediately upon conclusion of the ballot count.¹⁵⁷⁷ The warden at each ward or precinct fills out and signs the election return form provided by the Secretary of State, showing the number of votes cast for each candidate or question and recording the total number of state ballots cast in that ward or precinct.¹⁵⁷⁸

Reconcile vote and ballot totals and address discrepancies at the polling place

Maine has no explicit legal requirements for the comparison of the number of voters who checked in at the polls with the number of ballots cast. All of the election officials surveyed confirmed that.¹⁵⁷⁹ This comparison is a crucial element of the ballot reconciliation process, and we recommend legally mandating this comparison.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

Municipal officials oversee the regional element of the canvass in Maine, and the Secretary of State plays a large part in the Maine canvass. The municipal clerk receives the signed returns from each precinct and may correct any tabulation or vote recording errors that are made “obvious” through an examination of the tally sheets or tapes, and then sends an attested copy of the returns to the Secretary of State.¹⁵⁸⁰ In municipalities with multiple precincts, clerks are required to add together the totals from each polling place to determine the composite totals for the municipality before sending an attested copy of the composite return to the Secretary of State.¹⁵⁸¹ The Secretary of State tabulates all votes that appear on the election returns sent from a municipal clerk.¹⁵⁸² The Secretary examines the returns and the record of the vote, and if any discrepancy exists, corrects the tabulation by obtaining a certified copy of the record from the clerk.¹⁵⁸³

While there is no provision requiring the reconciliation of precinct and composite totals, and while two of the election officials surveyed reported that their municipalities only have one precinct,¹⁵⁸⁴ one reported that election officials “report to the state by precinct so they never compile the results of the municipality.”¹⁵⁸⁵ We recommend legally mandating this comparison to ensure that every vote is accurately reflected in the statewide canvass. Maine does not use a tally server and has no need to reconcile memory cards with server totals.¹⁵⁸⁶

Make all results public

The counting of the ballots at the precinct is required to be done “publicly so that those present may observe the proceedings,” and when the counting is completed, “the warden shall declare the results publicly at the voting place.”¹⁵⁸⁷ All of the election officials surveyed confirmed the foregoing.¹⁵⁸⁸ In precincts where optical scanners are used, one copy of the returns printed from each tabulator is posted outside the polling place.¹⁵⁸⁹ One of the election officials surveyed reported that the municipality does not use optical scanners,¹⁵⁹⁰ another confirmed posting the optical scan printouts,¹⁵⁹¹ and a third reported that election officials mark the results onto an enlarged copy of the ballot, because although “[t]he tape is available . . . it is more difficult to interpret.”¹⁵⁹² The Secretary of State is required by law to have copies of the statewide tabulation printed and made available to the public.¹⁵⁹³

Recommendation: Maine requires two of the best practices (although spoiled ballots are not tabulated at the polling place and publication appears to be limited to results posting), and does not use a tally server, making a third (memory card reconciliation) unnecessary; in addition, municipalities with more than one precinct are required to conduct a fourth (reconciliation of precinct totals to composite totals). Therefore, Maine’s ballot reconciliation procedures are good. We recommend that Maine account for all ballots at the polling place, require that election officials reconcile the number of voters checked off in the poll books against the number of ballots cast, and expand its publication requirements to include ballot reconciliation information.

Maryland

Maryland uses paperless DREs statewide as the standard polling place equipment. Maryland's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Accounting for all ballots and votes at the polling place

After the last vote has been cast, the election judge closes the polls and secures the voting systems¹⁵⁹⁴ and completes all documents, records and reports required by law or regulation.¹⁵⁹⁵ Election judges must also assemble and account for materials to be returned to the local board, including poll books.¹⁵⁹⁶ The county board of canvassers provides election judges with detailed procedures on the closing of polls specific to the voting system in used.¹⁵⁹⁷

For DRE touch screen machines, currently in use state-wide in Maryland, when the "end election" button and "print totals report" buttons are pushed, the machine will automatically tabulate and print out the total number of votes cast for each candidate and question.¹⁵⁹⁸ The results report also indicates the number of votes cast in each write-in position.¹⁵⁹⁹ Election judges end the election on each voting machine, print and sign the vote totals reports, post the reports, document the public and protective counter totals, remove memory cards from the machines, and return materials to the local board.¹⁶⁰⁰ The DRE's memory cards, memory card envelopes, door key envelopes, official results envelopes, signs and supply bags must be promptly delivered to the local board after polls close.¹⁶⁰¹

All of the counties surveyed confirmed that all of the foregoing procedures reflect actual practice,¹⁶⁰² although one clarified that the county simply follows the procedures provided by the State Board of Elections.¹⁶⁰³

Reconcile vote and ballot totals and address discrepancies at the polling place

Following the tabulation of the votes, the election director produces a consolidated report that shows, by precinct, the total votes cast for all offices and on all questions.¹⁶⁰⁴ The election director makes a full accounting of the ballots.¹⁶⁰⁵ While Maryland does not have any laws or regulations requiring a comparison of the number of voters who sign in to vote and the number of ballots cast as part of the poll closing procedures on Election Day, the state Board of Elections points out that that reconciliation is required for all precincts as part of the post election audit.¹⁶⁰⁶ The post-election audit referred to by the board is to take place "[b]eginning on the day after the election" and requires the election director to audit voter authority cards (VAC's), reports printed by electronic poll books, ballot stubs, voted ballots, spoiled ballots and returns.¹⁶⁰⁷ "If any discrepancies arise that cannot be reconciled, the voting units shall be audited until the cause of the discrepancy has been determined."¹⁶⁰⁸

Although the regulation describes a procedure to commence the day after the election, reportedly, reconciliation also takes place on Election Day. During voting, each voter receives a piece of paper that contains his or her voter registration information (the "VAC"). The VAC is put in an envelope that is taped to the voting machine to which the voter is assigned. As laid out in the poll worker manual, throughout voting, poll workers are required

to count the number of VACs in the envelope and compare the number to the counter on the voting unit. All of the counties surveyed confirmed that the procedures described in this paragraph reflect actual practice.¹⁶⁰⁹ While this procedure is fairly rigorous, we recommend legally requiring the reconciliation of ballots cast to signed-in voters.

Reconciling precinct totals to county totals, and reconcile memory cards at the county level

The local board of canvassers review election returns and ascertain the result of the election. If the board finds an error in the precinct returns, it must investigate the matter.¹⁶¹⁰ The local board then certifies the votes cast for each candidate or question.¹⁶¹¹

If multiple DRE touch screen machines have been used in a precinct, the local board will determine if memory cards should be consolidated to determine a precinct total and will do so according to procedures in the judges' manual.¹⁶¹² The local board is also charged with developing procedures for assembling memory cards from each polling place, transferring votes from the memory cards to the central system, tabulating write-in votes, and aggregating vote totals for the county, including polling place and absentee ballot totals.¹⁶¹³

The central tabulating system will tabulate and report the total number of votes cast on DRE touch screen machines for each candidate and question by precinct and by groups of precincts, such as districts, wards and countywide.¹⁶¹⁴ It will also report the total number of votes for each contest and in write-in positions.¹⁶¹⁵ County boards are required to compare 10% of the polling place tallies by manually tabulating the official results report for each DRE machine and comparing them to the report from the election management system. While this procedure is admirable, we recommend adopting measures by which vote totals for every precinct are compared with composite totals logged on the tally server. The election management system accounts for every memory card used in the election. All of the counties surveyed confirmed that the foregoing procedures reflect actual practice.¹⁶¹⁶

Making results public

Election results are posted per instruction in the election judge manual.¹⁶¹⁷ The local board is also required to make a report of the total votes for all contests and questions organized by precinct available to the public.¹⁶¹⁸

Recommendation: Maryland requires two of the best practices (although publication is limited to results posting), and conducts two in practice, therefore Maryland's ballot reconciliation procedures are generally good but need improvement in specific areas. While the state requires election officials to "account for" election materials at the polling place, and deserves particular acclaim for having regulations in place for memory card reconciliation, we recommend that Maryland adopt measures by which election officials are required to reconcile the total number of voters to the number of ballots cast in every precinct in the state, to reconcile vote totals for every precinct with composite totals logged on the tally server, and to reconcile memory cards. In addition, we recommend that Maryland expand its publication requirements to include ballot reconciliation information.

Massachusetts

Massachusetts uses optical scan voting systems statewide as the standard polling place equipment. Massachusetts' ballot reconciliation procedures are **good**.

Account for all ballots, votes and voters at the polling place

At the close of the polls, precinct officers print out totals tapes from each optical scanning machine and give the printout to the clerk for tabulation.¹⁶¹⁹ Precinct officers count paper ballots and any over-voted optical scan ballots sent to voting machines' auxiliary bins by hand.¹⁶²⁰ The clerk records the total number of names checked on the voting lists, the number of ballots received at the polling place, the number registered on the ballot box, the total number of provisional ballots cast, and the total number of spoiled, over-voted and unused ballots.¹⁶²¹ The clerk records the total number of ballots cast and the vote totals for each candidate or question.¹⁶²² Massachusetts law requires that spoiled ballots be destroyed without being examined.¹⁶²³ Two of the election officials surveyed confirmed that the foregoing reflects actual practice,¹⁶²⁴ but one clarified that "[t]he clerk doesn't do the tally, the poll workers do," and that spoiled ballots are not destroyed on Election Day but are stored at least temporarily.¹⁶²⁵

Reconcile vote and ballot totals and address discrepancies at the polling place

Precinct officers must compare the number of ballots cast to the number of voters who are checked on both the check-in list voter list and check-out voter list.¹⁶²⁶ Once tally sheets balance, officials announce and record vote totals.¹⁶²⁷ All ballots – including spoiled and unused ballots – are accounted for, gathered and recorded; precinct officers seal cast and uncast ballots into separate containers.¹⁶²⁸ Election officials sign the sealed cast ballot container and then seal and sign the total tally sheet.¹⁶²⁹ All of the election officials surveyed confirmed that the foregoing reflects actual practice,¹⁶³⁰ and one added that "[t]he tally sheet is [what is used to] tabulate the votes."¹⁶³¹

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

Massachusetts conducts elections on the municipal level, and counties are not involved in vote-counting. As required by law, city or town clerks examine precinct results for any discrepancies or tabulation errors and make corrections before reporting results to the Secretary of the Commonwealth.¹⁶³² The Secretary of the Commonwealth presents the record of votes to the governor and councilors, who tabulate and certify the statewide result.¹⁶³³ Massachusetts does not upload any memory cards to a vote counting server.¹⁶³⁴ All of the election officials surveyed confirmed the foregoing,¹⁶³⁵ but one clarified that [he] did not have specific information about procedures taking place in the Secretary of Commonwealth's office.¹⁶³⁶

Make all results public

As soon as the polls close, election officials at the polls publicly announce the number of names checked on each voting list, the total number of ballots cast, and the vote totals

printed by the counting device (although no public announcement is made as to absentee or over-voted ballots).¹⁶³⁷ The returns from each precinct are reported to the Secretary of the Commonwealth by way of the Central Reporting Service; these results are disseminated to the public.¹⁶³⁸ Municipalities may also post optical scan printouts outside the city clerk's office. We recommend legally mandating the release of all precinct and composite results.

The election officials surveyed reported varying practices with respect to publishing results. One confirmed the foregoing, but clarified that “printouts of the results are posted at polling place but not at the clerk’s office.”¹⁶³⁹ Another clarified that “[t]he results are not posted. They are placed on the website.”¹⁶⁴⁰ A third reported that “[t]he announcement is made at the precinct. The tape is posted at the precinct. The results are then sent to town clerk who examines the results and makes corrections. The clerk then puts the results in the Central Voter Registry. Those results (being the official ones) aren’t made public till 4 days after a primary and 10 days after a general [election].”¹⁶⁴¹

Recommendation: Massachusetts requires three of the best practices (although publication is limited to results posting) and does not use a tally server, making a fourth (memory card reconciliation) unnecessary); therefore, Massachusetts’ ballot reconciliation procedures are good. While the state has good procedures in place for poll site ballot accounting and reconciliation practices, we recommend that the Commonwealth require that election officials reconcile all totals received from each polling place with composite totals before certifying the result of an election. We also recommend legally mandating the release of all precinct and composite level results, including ballot reconciliation information.

Michigan

Michigan uses optical scan voting systems statewide as the standard polling place equipment. Michigan's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

After the polls close, the precinct inspectors print the recorded vote results from the precinct's optical scan tabulator and canvass the vote by comparison to poll lists.¹⁶⁴² After any discrepancies are resolved, the ballots are securely tied in packages or rolls and placed in approved ballot containers.¹⁶⁴³ Poll workers prepare and sign an election certificate stating the whole number of votes cast for each candidate or question, which they affix to the ballot container in such a way that the certificate cannot be removed without breaking the seal on the ballot container.¹⁶⁴⁴ The sealing is certified on a form prescribed by the Secretary of State and verified by another election official from the other major political party.¹⁶⁴⁵ Officials seal and secure the ballot box and deliver it to the town, city, or village clerk.¹⁶⁴⁶

The election inspectors prepare duplicate statements of the election returns showing the total number of votes cast for all offices and the number of votes cast for each candidate and question.¹⁶⁴⁷ The total number of ballots delivered to the precinct is accounted for in the ballot summary, including voted, defective, and unused ballots.¹⁶⁴⁸ Undervotes are not recorded.¹⁶⁴⁹

Reconcile vote and ballot totals and address discrepancies at the polling place

The number of ballots cast as recorded on the tabulator tape is compared to the number of names entered in the precinct's poll book.¹⁶⁵⁰ If a discrepancy exists, the precinct inspectors attempt to resolve the discrepancy through a review of the records and a manual count of the ballots.¹⁶⁵¹ If it appears that one or more ballots have not been counted, the ballots are retabulated, and a corrected tabulator tape is produced.¹⁶⁵² If there exists more ballots than electors according to the poll book, the ballots are replaced in the box and an inspector publicly draws out and destroys as many unopened ballots as is equal to the excess.¹⁶⁵³ As this practice lends itself to ballot box stuffing, we recommend that it be discontinued and outlawed.

The counties surveyed on the subject of polling place reconciliation reported varying practices. One reported that "[i]f there were any problems with the tabulation numbers matching up with number of voters, [poll workers] would refer to the [voting system manual]."¹⁶⁵⁴ Another reported that its "instruction to [poll workers] is to make sure that the numbers in the poll books, the number of applications, and tabulation throughout the day is continually checked," and that "[a]t the precincts, if the number of ballots doesn't match the machine results, they have to do a hand count, and must count and recount. If they cannot reconcile numbers, they have to note this in remarks, so that the canvassing board can deal with it."¹⁶⁵⁵

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The board of county canvassers meets at the office of the county clerk and canvasses the returns of votes cast for all candidates and questions according to the returns.¹⁶⁵⁶ They check the tabulated totals from the precincts.¹⁶⁵⁷ If there are any missing, incomplete, or incorrect returns, the county canvassers have access to election materials and are authorized to correct obvious mathematical errors in tallies and returns and call upon election inspectors to retabulate any ballots to produce correct returns.¹⁶⁵⁸ We recommend adopting the practice of comparing precinct totals to composite totals.

One of the counties surveyed reported that, “[t]he county tabulates and compiles” the materials received from the precincts, and “looks at the memory pack [and] tapes, and compares those with [the number of] voters in the precincts and the [number of] voters in poll book.”¹⁶⁵⁹ Another reported that if the polling place report reflects a discrepancy of even one vote, the county will “start with a freshly programmed blank memory card, and retabulate at the county by hand feeding ballots again.”¹⁶⁶⁰ The respondent also reported that poll books, counter numbers, totals tapes run before and after the polls open and close, memory cards and other materials “all get addressed line-by-line by the board of canvassers,” which confirms that “the reported numbers from the tabulator match that of the tapes” and “reconcile[s] the number of ballots issued to the polling places” (spoiled, provisional, and absentee) and checks everything against “what was uploaded from their system via telephone modem.”¹⁶⁶¹

Make all results public

Immediately following the completion of any canvass, the results stating the number of votes cast for each candidate and question must be made available to anyone who is present.¹⁶⁶² Statements of election returns are submitted to the board of canvassers and the county clerk.¹⁶⁶³ The county clerk compiles the unofficial returns and makes them public.¹⁶⁶⁴ Election results are posted on the Internet as they are returned to county officials.¹⁶⁶⁵ In addition, county clerks forward unofficial returns for state and federal office to the Secretary of State, who posts them on the Department of State’s website.¹⁶⁶⁶

The counties surveyed reported similar publication procedures. One of the counties surveyed reported that its results are tabulated centrally, and uploaded “into the election night reporting systems producing unofficial results,” and that the “[r]esults are available at the counter in the clerk’s office” and “are posted on the website after the canvass.”¹⁶⁶⁷ Another reported that it uploads the total results received from the townships, then “[t]he unofficial results are reported to the public at the office, at the counter,” and the results “are also posted on the web.”¹⁶⁶⁸

Recommendation: Michigan requires three of the best practices, although with respect to the requirement to reconcile the number of votes with the number of voters at the polling place, the Michigan code provides that any excess ballots are to be removed at random. Therefore, Michigan’s ballot reconciliation procedures are generally good, but need improvement in specific areas. The state has good procedures in place for accounting for and reconciling all ballots at the polling place, however, we recommend that Michigan

discontinue and outlaw the practice of removing ballots in excess of the number of voters at random, and require the practice of comparing precinct totals to composite totals. In addition, although some counties reported some memory card accounting practices, we recommend that Michigan adopt rigorous requirements mandating that any memory cards used be accounted for and reconciled. Finally, if the Michigan canvass report does not include ballot reconciliation information, we recommend that Michigan expand its publication requirements to include that.

Minnesota

Minnesota uses optical scan voting systems statewide as the standard polling place equipment. Minnesota's ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

As soon as the polls have closed and poll workers (referred to as election judges) have locked tabulators against further voting, they must open the ballot box and count and record the total number of ballots.¹⁶⁶⁹ Judges then enter all ballots into the ballot counter.¹⁶⁷⁰ The head election judge must create a printed record of the results of the election for the precinct; after the record has been printed, the head election judge may transmit accumulated totals to a central county report location using a telephone, modem, Internet or other means of electronic communication.¹⁶⁷¹ These returns remain unofficial until the canvassing board has examined and reconciled all results.¹⁶⁷²

Where ballots are tabulated at a central count location, judges seal all voted, defective and damaged ballots, along with all unused ballots, for delivery to the counting center.¹⁶⁷³ Counting center judges conduct a preliminary tabulation of ballots using an automatic tabulator before returning ballot cards to the judges designated to examine the ballots for physical defects and prepare them for final tabulation.¹⁶⁷⁴ After judges replace any damaged or defective cards, they must obtain a final tabulation from the automatic tabulating equipment.¹⁶⁷⁵

In precincts where ballots are counted by hand, as soon as the polls close election judges immediately open the ballot boxes, count the votes, and declare the totals.¹⁶⁷⁶ They then enter numbers onto summary sheets, which are not considered final until all ballots have been properly sorted and counted.¹⁶⁷⁷ Election judges then deliver the summary statements either to the municipal clerk for delivery to the county auditor, or directly to the county auditor.¹⁶⁷⁸ None of the counties surveyed currently have any hand-count precincts.¹⁶⁷⁹

The election judges in every precinct must prepare a statement that details the number of ballots delivered to the precinct "as adjusted by the actual count made by the election judges;" the number unofficial ballots made (if any); the number of votes for each candidate or question; the number of under-voted or over-voted ballots; the number of blank, defective, spoiled or unused ballots; the number of duplicate ballots made; the number of absentee ballots sent to the precinct; the number of absentee ballots rejected; the total number of individuals who voted in the precinct; and the total number of voters registered in the precinct.¹⁶⁸⁰ This, together with the final tabulation and including the returns of write-in and absentee votes, constitutes the official returns for the precinct.¹⁶⁸¹ These returns must include a complete report from the tabulating equipment of all ballots processed.¹⁶⁸²

All of the counties surveyed confirmed that the foregoing accurately describes actual practice,¹⁶⁸³ except that two of them clarified that absentee ballots are no longer sent to the precincts and instead are delivered to and processed by an Absentee Ballot Board, and that the Absentee Ballot Board completes a statement that includes the same type of information as is included in a precinct statement.¹⁶⁸⁴ One of the counties surveyed also reported that it

prepares an “election summary sheet which includes an incident log in which any troubles or problems that arise are recorded.”¹⁶⁸⁵

Reconcile vote and ballot totals and address discrepancies at the polling place

After the close of the polls, election judges must count the total number of ballot cards in the ballot box to determine whether this total matches the number of voters who signed in the election register.¹⁶⁸⁶ One of the counties surveyed reported that, “[i]n addition, all voters, after voting, receive a voting receipt from the voting machine which is then returned to the precinct officials. At the close of polls, the voter receipts are checked against the number recorded on the voting machine, and the number of voters who signed the voter rosters.”¹⁶⁸⁷ If there is an excess of ballots as compared to voters, the Minnesota code provides that election judges must seal the ballots and transport them to the county auditor or municipal clerk, who will examine all ballots to ensure that they are properly initialed by election judges.¹⁶⁸⁸ The election judges will set aside any ballots folded together or not properly initialed; if there is still an excess, an election judge will withdraw a number of ballots equal to the excess at random.¹⁶⁸⁹ Because this practice lends itself to ballot box stuffing, it is unsatisfactory as a reconciliation measure, and we recommend discontinuing and outlawing this practice.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county canvassing board canvasses the precinct returns and files a report stating the total number of voters in each precinct, the total number of voters registered before Election Day and on Election Day in each precinct, and the total votes for each candidate or question in each precinct.¹⁶⁹⁰ The county canvassing board then certifies the results of the canvass and transmits those results to the Secretary of State.¹⁶⁹¹ While there is no explicit legal requirement that county officials compare precinct results to composite totals, a representative of the Secretary of State’s office reports that this reconciliation is done in practice,¹⁶⁹² and two of the three counties surveyed for this report state that they do reconcile precinct results with countywide results.¹⁶⁹³ The third essentially confirmed the same thing, reporting that “[a] tape is run off of each voting machine, and the vote count [is] transferred on to [an] election summary and from there into the election database,” and then “[e]verything is balanced against the election summary.”¹⁶⁹⁴ We recommend legally mandating a comparison of precinct totals to countywide totals during the county canvass.

Similarly, while Minnesota has no procedures for memory card reconciliation in place, a representative of the Secretary of State’s office reports that tabulator tapes are compared against tally server totals as a best practice.¹⁶⁹⁵ The practices of the counties surveyed varied. One reported that it does not reconcile memory cards, but it “manually uploads [its] results based on the results tapes,” and then “[t]he results tapes are compared with the summary statements provided by the precincts.”¹⁶⁹⁶ Another reported that it does verify that each precinct’s memory cards have been properly uploaded to the server before the end of election night, and it compares results tapes to tally server reports; “[a]ll precinct totals are transferred to the State and are verified” and “[i]f there is a discrepancy, it is reconciled against the incident log.”¹⁶⁹⁷ The third county reported that it “verifies that all precinct memory cards have been properly uploaded to the state before the end of election night”

and that “[p]recinct tapes from both the polling place results and absentee results are compared with the results uploaded to the state as well as with the final election abstract report.”¹⁶⁹⁸ We recommend codifying rigorous memory card accounting and reconciliation practices as a matter of law.

Make all results public

Whether ballots are counted at the polling place or at a counting center, the process of counting them is required to be open to the public.¹⁶⁹⁹ All of the counties surveyed confirmed this,¹⁷⁰⁰ and one clarified that it “only has six precincts with polling places, [and] the rest vote by mail and [the ballots] are centrally counted at the court house,” but “[b]oth places are open to the public.”¹⁷⁰¹ The results of the preliminary tabulation of precinct results at a counting center may be released to the public if they are clearly marked as unofficial.¹⁷⁰² County results are uploaded to the Secretary of State’s website.¹⁷⁰³ The county auditor in each county must also provide a certified copy of the county canvassing board report to anyone who requests it.¹⁷⁰⁴

Recommendation: Minnesota requires three of the best practices summarized above, although with respect to the requirement to reconcile votes to votes, the code provides that excess ballots shall be removed at random, a practice we recommend outlawing. Minnesota conducts the other two best practices although they are not required by law, therefore Minnesota’s ballot reconciliation procedures are good. The state has good procedures in place for accounting for all ballots at the polling place and making all results public. However, we recommend legally mandating the practices of comparing precinct totals to composite totals and reviewing status reports from the tally server to ensure that all memory cards have been properly loaded onto the tally server.

Mississippi

Mississippi uses VVPAT-equipped DREs statewide as the standard polling equipment, except that four counties use optical scan voting systems and three counties use paperless DREs. Mississippi's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

Immediately at the close of the polls, in jurisdictions using DREs (most of the state), the poll manager is required to obtain the results tape from each DRE unit, verify that the number of ballots cast as recorded on the tape matches the public count number displayed on the DRE, transmit the election results extracted from each DRE unit by modem to the central tabulating center for the county (where the Secretary of State has provided a procedure therefore), and extract the memory cards from each DRE.¹⁷⁰⁵ The poll manager then completes and signs a ballot recap form listing the number of valid, spoiled or invalid, and affidavit and unused affidavit ballots, and any other unused ballots, and places a copy of the recap form and any unused, defective, spoiled or invalid ballots in an envelope.¹⁷⁰⁶ The poll manager also places the zero tape, results tape and memory card for each DRE into an envelope, and the return manager brings the envelopes to the tabulating center designated for the county or municipality.¹⁷⁰⁷ The DRE county surveyed reported that results are not transmitted by modem but rather "the poll workers take the memory cards back to the courthouse, and we do all the counting here at the courthouse," but otherwise confirmed the foregoing.¹⁷⁰⁸ The Secretary of State reported that the foregoing summary was incomplete and did not include all the precinct-level ballot accounting requirements, which are substantial.¹⁷⁰⁹

Where optical scanners are used (a handful of counties), as soon as the polls close the "ballots shall be sealed against further voting" and all unused ballots shall be sealed in a container.¹⁷¹⁰ The poll manager then prepares a report of the number of voters who voted, as indicated by the poll list, places it in the ballot box, and seals the ballot box.¹⁷¹¹ The returning manager then delivers the ballot box to the designated counting center, and the poll list, register of voters, unused ballots, spoiled ballots, and other records and supplies, are delivered as directed by the officials in charge of the election.¹⁷¹² The optical scan county surveyed reported that poll workers "bring it all to us and we seal it into a room."¹⁷¹³ The Secretary of State again reported that the foregoing summary is incomplete and that ballot accounting procedures in optical scan counties are more rigorous than described.¹⁷¹⁴

Poll closing procedures in general provide that, once votes have been completely and correctly tallied, the managers are to publicly announce the results, certify in duplicate a statement of the result, and enclose one copy of the statement in the ballot box.¹⁷¹⁵ Officials then lock all voted, spoiled, or unused ballots in the ballot box, along with a copy of the ballot receipt, the tally list and the poll books.¹⁷¹⁶ After tabulation, all elections materials are delivered to the clerk of the county circuit court.¹⁷¹⁷ Both of the counties surveyed confirmed the foregoing,¹⁷¹⁸ and the Secretary of State responded approximately as noted above.¹⁷¹⁹

Reconcile vote and ballot totals and address discrepancies at the polling place

Election officials must reconcile the number of ballots voted with the number of voters who signed in; that is “the number of ballots voted must correspond with the number of names signed in [the voter] receipt booklet.”¹⁷²⁰ Additionally, the number of voted, spoiled, and unused ballots must correspond with the total number of ballots received by the polling place as listed on the ballot receipt.¹⁷²¹ If there is a discrepancy, it must be “perfectly accounted for” by a sworn statement signed by the elections managers and included with other elections materials sealed in the ballot box.¹⁷²² Both of the counties surveyed confirmed the foregoing¹⁷²³ and the Secretary of State reiterated some of the foregoing and generally confirmed the rest.¹⁷²⁴

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

According to the Mississippi code, the county executive committee receives and canvasses the returns from each precinct.¹⁷²⁵ The Secretary of State clarified that “[t]he County Executive Committee in primary elections and the Election Commission (inclusive of county and municipal) in general and special elections receives and canvasses the returns from each precinct.”¹⁷²⁶ County officials transmit the certified vote totals for the whole county and for each precinct within the county to the Secretary of State, but there is no explicit legal requirement that the sum of precinct-level totals be reconciled with vote totals for the county.¹⁷²⁷ The Secretary of State did not confirm the foregoing and reported that the “Election Commissions and Executive Committees are obligated to file a separate report with the Secretary of State which must include the total voter turnout for each election, determined by totaling the number of persons signing the receipt book at each precinct, absentee voters and persons who voted by affidavit ballot and persons whose ballots were challenged and rejected, and an explanation or suspected cause for any difference between the amount of total voter turnout and the number of counted votes for candidates for various offices.”¹⁷²⁸ We recommend explicitly adopting a requirement that precinct totals be reconciled with county totals as a part of the county canvass. After the county canvass is complete and the results of the election are certified, county officials must submit a report of residual votes, which includes undervoted and overvoted ballots, and any other vote not counted for any other reason, to the Secretary of State.¹⁷²⁹

The state uses a server system that prompts officials to enter memory cards that have not been loaded.¹⁷³⁰ The optical scan county surveyed could not comment on state procedures, and reported only that “[o]ur machines tabulate and give us precinct by precinct.”¹⁷³¹ The DRE county surveyed did not explicitly confirm the foregoing, but reported that “[i]f there is a memory card out there [election officials] have to open and close that machine. If you have three machines out there, you open and close every machine.”¹⁷³² The Secretary of State reported that Mississippi “does provide a check and balance system to ensure all memory cards have been loaded. These prompts show visually on the download screen and the system also provides warning messages to alert county election officials. In addition, the system provides reporting to indicate the number of ballots read on each memory card, along with the number of ballots downloaded to the server for each memory card. This report allows the county election officials to verify that all cards were completely loaded to

the server.” We recommend that the state enact or enforce rigorous accounting and reconciliation procedures to ensure that all memory cards have been read.

Make all results public

Whether DREs or optical scanners are used, all vote tabulation or ballot-counting proceedings at the polling place are required to be conducted publicly.¹⁷³³ A statement of the result of each election is required by law to be kept by one of the elections managers to be examined by any voter who requests the opportunity to do so.¹⁷³⁴ Both counties surveyed confirmed the foregoing,¹⁷³⁵ and the DRE county reiterated that “[n]o doors are closed and anybody can be there” and “once its over, the totals are posted on the wall.”¹⁷³⁶

Recommendation: Mississippi requires three of the best practices (although, despite the requirement that counting be conducted publicly, limits publication to results posting) and appears to conduct a third (memory card reconciliation) in practice, therefore Mississippi’s ballot reconciliation procedures are generally good, but need improvement in specific areas. While the state has good procedures in place for polling place reconciliation and elements of its county canvass are quite rigorous, we recommend that Mississippi enact requirements that election officials reconcile precinct totals with county totals as a part of the county canvass, and adopt rigorous procedures requiring that election officials review status reports from the tally server to ensure that all memory cards have been read. In addition, we recommend that Mississippi expand its publication requirements to include ballot reconciliation information.

Missouri

Missouri uses optical scan voting systems statewide as the standard polling place equipment, with the exception of St. Louis City, St. Louis County and Boone County, which use both DREs and paper ballots in many or a majority of precincts. Missouri's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

At the close of polls, election judges generate at least one tally tape from each precinct counter (optical scanning device) or DRE.¹⁷³⁷ Judges then accumulate the votes recorded on each unit.¹⁷³⁸ According to the Missouri Secretary of State's office, DREs, optical scanners or memory cards, are sent to a central count location on election night, and there is no longer any hand-counting at the polls, although laws applicable to this practice remain on the books.¹⁷³⁹ All of the counties surveyed confirmed this,¹⁷⁴⁰ although one noted that the hand-count laws remain on the books "just in case a hand-count becomes necessary."¹⁷⁴¹ Memory cards are removed from any unit that will not be delivered to a central count location and sealed in any unit that will be delivered to the count location.¹⁷⁴² Election officials seal and preserve all paper cast vote records, memory components, and provisional, optical scan and spoiled ballots.¹⁷⁴³ Audit trail tapes, voter access cards, voter lists, recap sheets and other election materials are transported to the election authority.¹⁷⁴⁴

Reconcile vote and ballot totals and address discrepancies at the polling place

After judges print totals tapes from each machine, they are required to compare the totals shown on the tape with the counter shown on the unit and the number of voters who signed in on the precinct register.¹⁷⁴⁵ In the case of precinct counters, the judges will compare the number on the tapes with the number on the machine counter and the number of ballots marked.¹⁷⁴⁶ Judges must document any discrepancy.¹⁷⁴⁷

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

At the central count location, the election authority transfers the vote totals from the memory components of each DRE or precinct counter into the election management system for official tabulation and consolidation.¹⁷⁴⁸ Logs are maintained, tracking each event related to each voting machine, memory component, paper cast vote record and ballot, and the log is to "include a statement that no election material was added, subtracted or altered except as provided by statute or rule and that no irregularities were noticed unless otherwise noted."¹⁷⁴⁹ All of the counties surveyed confirmed this practice, and further clarified that the required log include the reconciliation of memory cards loaded into tally servers.¹⁷⁵⁰ However, one clarified that the voting machines will record errors on "[their] own interior paper log, but they do not record events beyond that. Occasionally hand-written notes are made, and those would be filed in the election folder for that year. There is a log for the memory packs [indicating] which goes out to what precinct, and the tally server will indicate if any are missing."¹⁷⁵¹

Prior to certification of the results, accuracy certification teams run a set of votes identical to that used in a pre-election logic and accuracy test on each memory component used to tabulate votes at the precincts.¹⁷⁵² In the event of a discrepancy, the program will be corrected or paper cast vote records will be hand-counted.¹⁷⁵³ This is in addition to manual audit requirements, discussed later in the report.

As soon as possible after each election, the county convenes a verification board to verify the results of the tally and certify the results of the election.¹⁷⁵⁴ The verification board's corrections supersede any returns reported by judges on Election Day.¹⁷⁵⁵ The verification board examines all voting machines and prints returns from these machines.¹⁷⁵⁶ The board compares machine returns with the returns furnished by elections judges on Election Day; if there is any discrepancy, the verification board corrects the judges' returns.¹⁷⁵⁷ The verification board prepares an abstract, which includes the votes for each candidate or question broken down by political subdivision within its jurisdiction.¹⁷⁵⁸ The Secretary of State's office points out that the foregoing requirements are set forth in a statute enacted when Missouri was voting on lever machines, and have not been amended to "take into account modern voting equipment."¹⁷⁵⁹ However, all of the counties surveyed confirmed that the foregoing description accurately describes current practice.¹⁷⁶⁰

Make all results public

The tabulation and consolidation of vote totals are required to be performed in public.¹⁷⁶¹ The statutory requirement that printed returns from voting machines be posted outside the polling place¹⁷⁶² was, according to the Secretary of State's office, applicable only to lever machines; the respondent clarified that "[e]lection results are tabulated at and released from the local election authority's office. No results are certified or posted by 'precinct election officers' or election judges."¹⁷⁶³ All of the counties surveyed confirmed that they do not post results at the precinct,¹⁷⁶⁴ but one noted that unofficial results are posted in the clerk's office and the clerk's office "will also post the official return after certification which is broken down by precinct."¹⁷⁶⁵

Recommendation: Missouri requires three of the best practices, and a fourth (reconciling precinct totals to county totals) may be done in practice; however, a requirement to post results at the polling place has either lapsed as a result of the change in voting equipment or is not being carried out. Therefore, Missouri's ballot reconciliation procedures are generally good but need improvement in specific areas. Its precinct-level accounting and reconciliations and many elements of its county canvass are quite rigorous. However, Missouri should enact a requirement mandating that election officials reconcile precinct results with county results, and should update and expand its previous requirements that election results be posted at the polls and require publication of ballot reconciliation information.

Montana

Montana uses optical scan voting systems statewide as the standard polling place equipment. Montana's ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

Votes are counted at the polling place and recorded on return forms.¹⁷⁶⁶ Optical scan voting systems are used to count ballots in most precincts.¹⁷⁶⁷ In any precincts using manual counts, two election judges must each keep a tally of the vote on separate tally sheets; after the tally is complete, the judges must compare their tally sheets.¹⁷⁶⁸ If there is a discrepancy, the count must be conducted again until the tallies match.¹⁷⁶⁹

The county election administrator provides a ballot reconciliation form along with ballots delivered to each polling place; polling place officials are required to verify the beginning and ending ballot numbers and sign the form indicating that they received the number of ballots as stated on the form.¹⁷⁷⁰ They are also required to enter the name of each voter appearing at the polling place in the poll book alongside the corresponding ballot number, and ensure that the number on the ballot (including any replacement for a spoiled ballot) being given to an elector corresponds to the number in the poll book for that voter.¹⁷⁷¹

After counting is complete, election judges seal the ballots and sign and certify the poll book.¹⁷⁷² All of the counties surveyed reported that the number of spoiled, unused and overvoted and undervoted ballots are counted and compared to the total number of ballots delivered to the precinct.¹⁷⁷³ Election judges then seal the precinct register, lists of individuals challenged, the poll book, the two tally sheets, all unused ballots and all ballots voted (including those not counted or allowed), and detach stubs from all counted or rejected absentee ballots, and deliver these items to the election administrator.¹⁷⁷⁴

Reconcile vote and ballot totals and address discrepancies at the polling place

Before counting the votes, the counting board is required by law to count all ballots cast to ensure that the total number of ballots corresponds with the total number of voters who signed the poll book.¹⁷⁷⁵ At the end of Election Day, or when early counting begins, the poll book and the number of ballots in the ballot container are reconciled on the ballot reconciliation form.¹⁷⁷⁶ If there is a discrepancy that cannot be reconciled, the counting board must submit a report of the number of ballots missing or in excess and any known reason for the discrepancy.¹⁷⁷⁷

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county canvassing board meets to canvass the returns from each precinct.¹⁷⁷⁸ During this process, the canvassing board publicly opens the returns, audits the tally books or other records of votes cast, determines the precinct-wide vote for each candidate or question, compiles totals, and declares the result.¹⁷⁷⁹ If the canvassing board finds an error in precinct documents affecting vote totals, the board can petition for a recount or for an inspection of the ballots.¹⁷⁸⁰ The canvassing board then compiles a report of the total number of people

who voted in each precinct and in the county, the votes in each precinct for each candidate or question, and the total votes in the county for each candidate or question.¹⁷⁸¹

Although no information is currently available regarding Montana's policies toward memory card reconciliation, one county official reported that it has a "security log" for memory cards,¹⁷⁸² another reported that it reconciles "ballots against the poll book and the print log,"¹⁷⁸³ and another reported that memory cards are "downloaded and tallied" on a computer in the clerk's office.¹⁷⁸⁴

Make all results public

Immediately after all votes are counted and recorded in the precincts, election judges must post a copy of the return form at the precinct or other counting location.¹⁷⁸⁵ In addition, the county canvass "must be public."¹⁷⁸⁶ County election officials also enter precinct level results into a statewide system, and those results populate to a public website as the counties enter them.¹⁷⁸⁷ One county official confirmed that "[vote] totals are posted on the courthouse door,"¹⁷⁸⁸ and another confirmed that it follows the state's regulations on the subject.¹⁷⁸⁹ A third county reported that its election results "are posted on the county website, and updated throughout the night in the case of local elections," and that the results for statewide elections are posted on the Secretary of State's website.¹⁷⁹⁰ Another reported that for local races, election results are posted in the local paper, and for major races, the Billings Gazette calls in to get the results.¹⁷⁹¹

Recommendation: Montana requires three of the best practices, and in addition, some counties reported some memory card reconciliation procedures. Therefore, Montana's ballot reconciliation procedures are good. While its precinct-level accounting and reconciliation and publication practices are strong, and reconciliation of precinct totals to county totals may be done in practice even if not explicitly required, we recommend that Montana enact requirements mandating that election officials reconcile precinct totals with county totals, and account for and reconcile any memory cards.

Nebraska

Nebraska uses optical scan voting systems statewide as the standard polling place equipment. Nebraska's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

The Secretary of State's office reports that "[p]oll workers are instructed to perform an audit prior to opening the polls to insure the polling place received the correct number and style of ballots shown to be issued to that polling place by the election official."¹⁷⁹² After the polls close, poll workers count and record the number of registered voters and sign the precinct voter list and sign-in register.¹⁷⁹³ "Poll workers are instructed to account for all ballots issued to their polling place as soon as the polls close to include voted, not voted, spoiled and rejected ballots."¹⁷⁹⁴ Then election officials deliver the ballot box and all other election materials to a central count location.¹⁷⁹⁵

The initial vote count takes place at a central count location determined by each county.¹⁷⁹⁶ The counting board staffing these central count locations counts the ballots using optical scanners unless it becomes impossible to do so, in which case the ballots may be counted manually.¹⁷⁹⁷ According to the Nebraska Secretary of State's office, the central counting board also tallies the number of spoiled and unused ballots and reconciles that tally with the number of ballots delivered to and returned from each precinct.¹⁷⁹⁸ This practice is not mandated by law but is the endorsed procedure.¹⁷⁹⁹ The counting board seals voted and rejected ballots, generates a report summarizing the votes cast for each candidate or question, and returns these materials to the county clerk¹⁸⁰⁰ for locked and secured storage until the county canvassing board meets.¹⁸⁰¹

Reconcile vote and ballot totals and address discrepancies at the polling place

Voted ballots are delivered to the central count location in sealed ballot boxes or sealed transfer cases that poll workers at the precinct are not authorized to open.¹⁸⁰² When poll workers count the number of ballots at the precinct prior to their transfer to the county, this count is for chain of custody verification and not for the purpose of reconciling the number of voters with the number of ballots.¹⁸⁰³ While no statute requires election officials at the county level to compare poll lists to the number of ballots cast in each precinct, the Nebraska Secretary of State's office reports that the central counting board and county canvassing board makes this comparison.¹⁸⁰⁴

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

After ballots are counted at the central count location, county canvassing boards meet to canvass the vote for all precincts within their jurisdiction.¹⁸⁰⁵ Although this practice is not required by law, state officials report that the county canvass includes reconciling and verifying the number of spoiled, unused and overvoted and undervoted ballots with the total number of ballots sent to each precinct.¹⁸⁰⁶ If there is an obvious error in the vote tallies as reported, the board may open the ballot container and review the ballots or other materials

as needed to correct the error.¹⁸⁰⁷ In such cases, the county canvassing board “shall make the correction entry in the precinct sign-in register, the precinct list of registered voters, and the official summary or summaries of votes cast and shall attach a letter of explanation to each book where the correction was made.”¹⁸⁰⁸ Once all precinct totals are determined to be correct, the canvassing board records the results in a permanent ledger¹⁸⁰⁹ and prepares an abstract of votes, which the board delivers to the Secretary of State.¹⁸¹⁰

The system used to generate county abstracts requires county canvassing boards to enter precinct-by-precinct totals, and Nebraska counties compare precinct totals with their countywide total in certifying county canvass results.¹⁸¹¹ While Nebraska appears to have adequate extralegal safeguards in place with respect to reconciling precinct totals, we strongly recommend legally mandating a comparison of precinct totals with county totals to ensure that each precinct tally is accurately reflected in the state canvass. Very few counties in Nebraska use a voting system server, but those that do compare totals tapes to data loaded onto the server to ensure that all memory cards have loaded properly.¹⁸¹²

Make all results public

The Nebraska Secretary of State’s office makes its state abstract, which is created through the examination and compilation of county abstracts,¹⁸¹³ available to the public.¹⁸¹⁴ We recommend legally mandating the practice of releasing full precinct and county totals so that the public has the opportunity to review all totals and tabulations.

Recommendation: Nebraska requires two of the best practices, and conducts two more in practice; therefore, Nebraska’s ballot reconciliation procedures are generally good but need improvement in specific areas. While the state performs relatively well in the county canvass and has comprehensive publication procedures, its precinct-level canvass is insufficient. We recommend adopting ballot reconciliation procedures upon the initial count to ensure that the number of voters signed in is reconciled with the number of ballots cast at the precinct level. Additionally, we recommend legally mandating that election officials reconcile precinct totals with county totals, and reconcile any memory cards used, and also the practice of releasing full precinct and county canvass reports so that the public has the opportunity to review all totals and tabulations.

Nevada

Nevada uses VVPAT-equipped DREs as the standard polling place equipment. Nevada's ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

As soon as the polls close, the election board secures all devices against further voting.¹⁸¹⁵ The election board then ensures that the device provides for a record printed on paper of the total number of votes recorded on the device for each candidate and for or against each measure, counts the number of ballots voted at the polling place, and accounts for all ballots on the statement of ballots.¹⁸¹⁶ The board then seals all records printed on paper, all storage devices which store the ballots voted on the devices, and any other records, reports, and materials as directed by the county clerk into a container and delivers those items to a central counting place.¹⁸¹⁷ Next the board records the number of votes on a form provided by the county clerk,¹⁸¹⁸ and if a difference exists between the number of voters and the number of ballots voted, the board is required to report the difference and any known reasons for the difference, in writing, to the county clerk.¹⁸¹⁹ Finally, the board is required to compare the quantity of supplies furnished by the county clerk with the inventory of those supplies, and note any shortages.¹⁸²⁰

A central ballot inspection board receives sealed ballots (in this case, VVPAT rolls and any paper ballots used in the election) at a central counting location, removes the DRE memory storage devices, and registers the numbers of ballots by precinct.¹⁸²¹ The ballot processing and packaging board verifies the accuracy of the testing equipment,¹⁸²² runs an electronic tally of the ballots by precinct,¹⁸²³ maintains a log to ensure that every precinct is accounted for,¹⁸²⁴ records an explanation of any irregularities,¹⁸²⁵ and returns all election materials to the county clerk.¹⁸²⁶

Reconcile vote and ballot totals and address discrepancies at the polling place

If a discrepancy exists between the number of voters and the number of ballots voted, the counting board is required to make a note of the discrepancy and any known cause in writing.¹⁸²⁷ The counting board is also required by law to "account for all ballots, used and unused" before counting any votes.¹⁸²⁸

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county board of commissioners begins the countywide canvass as soon as all returns are received.¹⁸²⁹ The commissioners review the returns from each precinct, note and correct any clerical error, "[taking] account of the changes resulting from the discovery, so that the result declared represents the true vote cast," and then create an abstract of the votes for each contest and question, which they deliver to the Secretary of State.¹⁸³⁰ While this does not explicitly call for a comparison of votes to voters, all of the Nevada counties surveyed reported reconciling vote, elector, and ballot totals in each precinct and countywide.¹⁸³¹ One county reported that "every effort is made to reconcile the number of signatures received in the Roster Book with the count per precinct in the polling place at the end of Election Day,"

and that in addition a reconciliation team at the Registrar of Voters' Office "starts immediately after the count on Election Day to reconcile where the poll workers were unable to do so in their polling places."¹⁸³² In his experience, in general, any errors found tend to be attributable to human error because "the poll workers . . . are doing this at the end of a 16 hour day."¹⁸³³ We recommend explicitly mandating the practice of precinct totals with county totals by law.

All of the counties surveyed also report accounting for and reconciling memory cards and tally server totals to ensure that each cartridge was properly loaded and recorded.¹⁸³⁴ One county reported that "[w]e confirm (many times) election night which cartridges have been read. . . . If you don't read a cartridge, it becomes immediately apparent during the post election audit," as the respondent experienced in 2001 and subsequent to which procedures were "significantly changed" to prevent it from happening again.¹⁸³⁵ Another reported that every memory card has a bar code on it, and they are all scanned at every point during the process so election officials know where every card is from the time it is delivered to the precinct to the time it is returned to storage, "and our tabulation software will not let us close the system to print a final cumulative report unless every cartridge from every [voting machine] has reported all its totals."¹⁸³⁶ A third reported that the memory card reconciliation process "is part of the software, and it's all double checked," and that each cartridge is assigned to the type of cast votes, stored on it, such as absentee or early votes, and "the computer won't allow [the cartridges] to be read as [reporting totals for] any other type [of ballot] than that which they were assigned."¹⁸³⁷

Make all results public

According to Nevada law, "each counting board, before it adjourns, shall post a copy of the voting results in a conspicuous place on the outside of the place where the votes were counted."¹⁸³⁸ According to the Secretary of State, counties will transmit unofficial results to the Secretary of State's office throughout the night of the election for public posting of updates on the Secretary of State's website.¹⁸³⁹ Each county counting board is required to post a copy of the voting results in a conspicuous place on the outside of the counting center before it adjourns on the night of the election.¹⁸⁴⁰ County clerks are also required to make voting rosters available to the public and tally lists except for voted ballots available to any contestant in the election in question.¹⁸⁴¹

Recommendation: Nevada requires three of the best practices, although its publication requirements appear to be limited to results posting, and conducts the other two in practice; therefore, Nevada's ballot reconciliation procedures are good. The state has good procedures in place for ballot accounting and reconciliation at the precinct level. However, we recommend that Nevada mandate the practice of reconciling precinct totals with county totals and reconciling memory cards by law, and expand its publication requirements to include ballot reconciliation information.

New Hampshire

New Hampshire uses optical scan voting systems statewide as the standard polling place equipment. New Hampshire's ballot reconciliation procedures are **excellent**.

Account for all ballots, votes, and voters at the polling place

The number of ballots delivered to the polling place is counted at or prior to the opening of the polls.¹⁸⁴² After the polls close, the moderator at each precinct oversees the counting of all ballots.¹⁸⁴³ The moderator also completes a "Moderator's Certificate" stating how many standard Election Day ballots were received from the Secretary of State.¹⁸⁴⁴ After votes are tabulated and totaled, the moderator announces the final count for each office.¹⁸⁴⁵ The town or ward clerk then prepares a return based on the totals announced,¹⁸⁴⁶ which includes vote totals for each candidate or question.¹⁸⁴⁷ As of January 1, 2012, within 48 hours of the closing of the polls, the moderator completes a "Moderator's Worksheet" that repeats the number of ballots originally received from the Secretary of State, and also shows the number of ballots cancelled (spoiled) and not used, the number of ballots cast set forth by reference to the method of casting (standard Election Day ballots, accessible ballots, absentee ballots, substitute additional ballots copied or cast on absentee ballots if the standard Election Day ballots run out), a comparison of the different methods of tallying ballots, the number of voters checked in and out as having voted in person, and the number of absentee voters checked in and out as having voted by absentee ballot.¹⁸⁴⁸ Moderators are also required to complete a "Ballot Accounting" form, which "requires them to add the total votes for candidates on the ballot, write-in votes, undervotes and overvotes and to compare this total with the number of ballots cast in [the election], and the number of voters marked on the checklist as having voted."¹⁸⁴⁹

After the return and worksheet are created, the moderator places all ballots in a sealed container and labels the seal with the number of cast, cancelled (spoiled), and uncast ballots contained therein.¹⁸⁵⁰ The town clerk holds all ballots unless a recount is ordered, in which case the clerk forwards the ballots to the Secretary of State.¹⁸⁵¹ The clerk forwards the election return, in both paper and electronic form and no later than 8:00 a.m. on the day following the election, to the Secretary of State's office.¹⁸⁵²

Reconcile vote and ballot totals and address discrepancies at the polling place

Moderators are legally required to include information about the number of voters and the number and types of ballots on the returns they furnish to the Secretary of State.¹⁸⁵³ To facilitate compliance with this law, the Secretary of State requires all moderators to complete the Moderator's Worksheet referenced above, on which poll workers are required to total and reconcile the number and type of ballots cast, the number of voters marked as having checked in at the polling place, and either the number of voters marked as having checked out (where ballots are hand-counted) or the total number of ballots counted by the tabulator plus any ballots counted by hand (where ballots are machine-counted).¹⁸⁵⁴

The Moderator's Worksheet explicitly calls for four distinct but duplicative tallies: "(A) Ballot Inventory [described above, it starts with the number of ballots provided by the Secretary of State, subtracts the number of uncast and spoiled ballots, and adds net absentee ballots cast],

(B) Voter Participation Tallied at Check-In, (C) Voter Participation Tallied at Check-Out, and (D) Hand count of ballots cast” and states that “[i]deally, these four counts should result in the same number of ballots cast and voters participating (that is, Total A = Total B = Total C = Total D)” and should also match the fifth duplicative total produced by the Ballot Accounting form.¹⁸⁵⁵ The Moderator’s Worksheet also explicitly provides that “[i]f there are any significant discrepancies” between any of the duplicative counts, Moderators should have their teams “carefully review their tallies” and “resolve discrepancies on election night before announcing results and avoid errors which, for example, may indicate more votes tallied in a particular contest than total ballots cast.”¹⁸⁵⁶

The New Hampshire Secretary of State’s office also extensively trains local elections officials on ballot accounting and verifying results.¹⁸⁵⁷

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

There is no county canvass in New Hampshire; the Secretary of State reviews all results during the state canvass. As required by the New Hampshire Constitution, the Secretary of State receives, examines, records, and totals the returns from each polling place.¹⁸⁵⁸ During the canvas, the Secretary of State’s office reviews and checks the work done by the moderators at the polling place.¹⁸⁵⁹ The Secretary of State’s office also examines the Return of Votes form, Moderator’s Certificate, Moderator’s Worksheet, and Ballot Accounting forms for discrepancies, and follows up with town clerks or polling place moderators as necessary to explain and resolve discrepancies.¹⁸⁶⁰

Make all results public

The Return of Votes is public, both at the local election administration level and at the Secretary of State level, and includes the ballot accounting forms, worksheets and certificates described above.¹⁸⁶¹ Local election officials are required to announce results at each polling place on election night, and are encouraged to post a copy of the results.¹⁸⁶² Town clerks are required by law to preserve all poll lists as public record for at least seven years.¹⁸⁶³ According to the Secretary of State’s office, the public can also request to view the election reports submitted to the Secretary of State.¹⁸⁶⁴ Detailed election returns are available on the Secretary of State’s website.¹⁸⁶⁵

Recommendation: New Hampshire requires four of the best practices summarized above, and does not use a tally server, making the fifth (reconciliation of memory cards) unnecessary. Therefore, New Hampshire’s ballot reconciliation procedures are excellent. In locations that count ballots by hand, however, New Hampshire could require by law that moderators follow the state’s best practices for hand counting rather than authorize moderators to adopt their own tally method.¹⁸⁶⁶

New Jersey

New Jersey uses paperless DREs statewide as the standard polling place equipment. New Jersey's ballot accounting and reconciliation procedures **need improvement**.

Account for all ballots, votes, and voters at the polling place

As soon as the polls close, election officials close the voting machines in accordance with instructions provided by the County Board of Elections, and print a results tape from each machine for all districts.¹⁸⁶⁷ Election officials then inventory the zero-proof tape for each machine, the election results tapes, the memory cartridges from each machine, and the keys for each machine, and place them into the proper containers for return to county election officials.¹⁸⁶⁸ Election officials then inventory provisional ballots by recording the number of "invalid," used, unused and "missing" provisional ballots, signing the inventory form, then sealing all of the provisional ballots into the bag provided for that purpose.¹⁸⁶⁹ If emergency ballots were used during the election, election officials count them by hand at the polling place, recording the total on a tally sheet, and keeping "void" or "spoiled" emergency ballots aside.¹⁸⁷⁰ Election officials then add the emergency ballot total to the voting machine totals on the return sheet.¹⁸⁷¹ The tally sheet and all voted, unvoted, void and spoiled emergency ballots are then sealed into the emergency ballot box, and all election materials including poll book and voting authority slips are secured for return delivery to the County Board of Elections.¹⁸⁷² The Secretary of State's office and the county surveyed for the report stated that statutory requirements are followed,¹⁸⁷³ but Rutgers Law School has observed, over the years, that accounting for these items is not completed, is done in a sloppy fashion, or not at all. Rutgers Law School has observed that election officials, on multiple occasions, failed to even sign off that all of the items they are supposed to collect are actually accounted for. They hastily put the items in a bag without first inspecting them or keeping track of items.

Reconcile vote and ballot totals and address discrepancies at the polling place

While precincts are required to report both the number of votes counted and the number of people who signed in on the poll lists,¹⁸⁷⁴ there is no legal requirement that election district boards reconcile the number of votes with the number of voters at each polling place. The Secretary of State's office and the county surveyed for the report confirmed the foregoing.¹⁸⁷⁵ This is a fundamental element of the ballot reconciliation process, and we recommend legally mandating a comparison of the number of ballots cast and reported with the number of voters.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county canvassing board convenes to determine the results of the election.¹⁸⁷⁶ The canvassing board examines the statements made by each district board to make its determination.¹⁸⁷⁷ The canvassing board must produce a statement of the number of voters who signed in, the number of voters on the poll books, the number of ballots rejected, and the number of votes cast for each candidate or question, broken down by election district.¹⁸⁷⁸ There is no explicit requirement for comparing precinct totals to county totals. We recommend reconciling these totals as a part of the county canvass. The state offers no

statutory guidance on memory card reconciliation. The Secretary of State's office reported that "[b]asically what counties will do is they will compare the printed tape from the machine to what was reported election night which would come off of the memory cartridge. It is not in the law but all or at least most counties will reconcile that to make sure everything matches."¹⁸⁷⁹ The county surveyed did not specifically confirm or modify the Secretary of State's assertions, but reported similarly that printouts are produced at the end of the evening on Election Day, and then "everything is sent to the County Clerk where the unofficial results are tallied" and "[t]he election is certified within a week."¹⁸⁸⁰

Indeed there is strong evidence that hardly any reconciliation occurs. In the 2008 presidential primary election the Union County Clerk discovered that vote totals from DRE printouts did not match the totals from DRE printouts the totals recorded on the voting machine cartridges. Some of the DRE manufacturers blamed it on human error. But, during the course of litigation acknowledged that its software was flawed. The Union County Clerk's findings exposed that only a handful of counties actually practice any reconciliation procedures. As a result of the flawed software, ten voters that we know of were disenfranchised.

Make all results public

Upon the closing of the polls, "[e]lection tapes for all districts must be printed," and "[a] district board member shall announce the final results of the election, post the results on the wall of the polling place, or provide copies of the results as directed by the County Board of Election."¹⁸⁸¹ County canvassing boards are required to file their statement of results with the county clerk, who is required to preserve these records for five years.¹⁸⁸² The Secretary of State's office acknowledged the statutory requirements,¹⁸⁸³ but the county surveyed reported that "no results are announced or posted at [the] polling place, it all goes to county Board of Elections and then to [the] County Clerk."¹⁸⁸⁴

Recommendation: New Jersey only requires two of the best practices, and its publication requirement appears to be limited to results posting and may not be carried out in practice. Therefore, New Jersey's ballot reconciliation procedures need improvement. We strongly recommend legally mandating poll closing and ballot reconciliation procedures applicable to the equipment currently in use, and requiring a comparison of the number of ballots cast and reported with the number of voters signed in at the polls. In addition, we recommend reconciling precinct totals with composite totals, and checking tally server reports to ensure that all memory cards have been read. In addition, we recommend that New Jersey enforce its results posting requirement and expand its publication requirements to include ballot accounting information.

New Mexico

New Mexico uses optical scan voting systems statewide as the standard polling place equipment. New Mexico's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

Immediately after the close of polls, poll workers certify that voting is complete “with the voting of voting machine number [X] by voter number [Y] on the signature roster.”¹⁸⁸⁵ The counties surveyed elaborated on this variously. Two reported that when the polls close, an election official stands at the end of the lines of voters, to prevent further voters from entering the line;¹⁸⁸⁶ one of those then reported that when the last voter finishes, the election official announces that the polls are closed,¹⁸⁸⁷ and another reported that even though the election official prevents additional voters from getting in line, everyone already in the line will be able to vote no matter how long it takes.¹⁸⁸⁸

Each precinct then mails the checklist of registered voters and one copy of the machine-printed returns to the Secretary of State.¹⁸⁸⁹ The signature roster, the machine-printed returns, the removable media storage device, one tally sheet, all ballots, all unused election materials and all returns are returned to the county clerk.¹⁸⁹⁰

Reconcile vote and ballot totals and address discrepancies at the polling place

New Mexico officials at the precinct are required to certify the signature rosters,¹⁸⁹¹ but not required to reconcile, the number of ballots cast with the number of voters who signed in at the precinct, although as discussed below this reconciliation is required at the county level. Notwithstanding the lack of an official requirement, all of the counties surveyed confirmed that this reconciliation is performed at the precinct level. One reported that “[a]t the end of the night [election officials] run a results tape” and “[t]hey do reconcile them with the signatures” in the poll book.¹⁸⁹² Another reported that “poll workers are trained to reconcile the machine count to the number ballots and the poll list,” although they “do not open the ballot boxes to confirm the ballots” but rather send those to the clerks office.¹⁸⁹³ A third reported that “[w]e tell our [poll] workers [the number of votes and voters] should match” and that “[i]f it does not, we want an explanation as to why,” for example, a voter signed in but had to leave before voting.¹⁸⁹⁴ That county qualified, however, that while poll workers “are trained to make the explanations, to watch the numbers all day long, and to keep their permit slips in a particular order so that they can go back and see mistakes,” “[t]hey are not trained to ‘make it balance.’”¹⁸⁹⁵ These practices are good, but we recommend requiring precinct-level reconciliations by law.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

County clerks compare the votes for each office and for each question appearing on the ballot, and enter the totals into the canvassing program.¹⁸⁹⁶ Two of the counties surveyed confirmed that,¹⁸⁹⁷ but one reported that it had converted to “an automatic voting tabulator”

through which the cast vote information is sent to the Secretary of State electronically, and adjusted thereafter to reflect provisional ballots counted.”¹⁸⁹⁸

The county canvassing board meets within three days of the election and examines the returns for any prima facie discrepancy, omission or error.¹⁸⁹⁹ A machine recheck is made if necessary due to a defect in returns or if any candidate or 25 voters request a recheck.¹⁹⁰⁰ The board certifies to the state canvassing board the number of votes for each candidate and for and against each issue.¹⁹⁰¹

County canvassing boards are required by state statute to compare the sign-in count against the number of votes cast. In the course of its canvass, the county canvassing board shall immediately summon the precinct board to appear and make necessary corrections or supply omissions if: (1) any certificate has not been properly executed; (2) there is a discrepancy within the election returns; (3) there is a discrepancy between the number of votes set forth in the certificate for any candidate and the number of electors voting as shown by the election returns; or (4) it appears that there is any omission, informality, ambiguity, error or uncertainty on the face of the returns.¹⁹⁰²

The state canvassing board’s canvass is based on returns transmitted to the Secretary of State directly from each precinct board and certificates transmitted by the county canvassing boards.¹⁹⁰³ The board examines all election returns and certificates issued by county canvassing boards. If there is any discrepancy, a district judge will summon the precinct board or county canvassing board to complete or correct such returns or certificates.¹⁹⁰⁴

Make all results public

One copy of the returns from each tabulator must be posted outside each polling place.¹⁹⁰⁵ Additionally, all returns and certificates of results are public documents that may be accessed by any concerned party.¹⁹⁰⁶ All of the counties surveyed confirmed this,¹⁹⁰⁷ but one qualified that (for example) an affidavit from a UOCAVA voter waiving his or her right to privacy would not be disclosed.¹⁹⁰⁸

Recommendation: New Mexico requires two of the best practices, although how detailed the precinct-level tally sheet is is not specified, and conducts a third in practice, therefore New Mexico’s ballot reconciliation procedures are generally good but need improvement in specific areas. While the procedures in place for reconciling redundancies at the county level and making results public are quite good, we recommend that New Mexico require detailed precinct-level ballot accounting and require reconciliation of the number of votes to the number of voters as a matter of law, and that New Mexico explicitly require county-level reconciliations of precinct totals to county totals, and reconciliations of any memory cards used.

New York

New York uses optical scan voting systems statewide as the standard polling place equipment. New York's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes and voters at the polling place

Upon the close of the polls, election inspectors follow written procedures and complete corresponding certificates to account for ballots cast and public counter numbers.¹⁹⁰⁹ First, election officials place an inspector at the ballot scanner to prevent further voting, account for and reconcile on a form the cast, unused, cancelled, spoiled, provisional and emergency ballots against the number of ballots delivered to the poll site, scan the ballots contained in the emergency box or other secure storage container, and hand count and secure ballots that cannot be scanned.¹⁹¹⁰ Officials then canvass the vote on each machine by printing the totaled ballot scanner results on each machine, and reading aloud the public office or party position, candidate name, political party, and the totaled result for each of these categories on each machine, and then repeating this process for ballot proposals.¹⁹¹¹ The results for any hand-counted ballots are then added to these individual machine totals to produce a single total result for each candidate and ballot proposal.¹⁹¹² An inspector will record these results for a return of the canvass, then inspectors will sign the return showing the number of votes cast for each candidate or question, the number of write-in votes, and the total number of ballots cast on each machine.¹⁹¹³ The signed certificates are returned in sealed, secure containers provided by the Board of Elections.¹⁹¹⁴

All of the counties surveyed confirmed that the foregoing is generally accurate,¹⁹¹⁵ although one reported that inspectors are not posted at the machines because the doors are locked when the polls close,¹⁹¹⁶ and another reported that instead of reading the results aloud election officials "print them out . . . If anyone is there and wants info, we give them a duplicate copy of the tape" because its "more accurate."¹⁹¹⁷ A third clarified that precinct officials only account for all of the ballots, used, unused, spoiled or write-in, but that if any hand counting is required, it is handled by the Board of Elections.¹⁹¹⁸

Reconcile vote and ballot totals and address discrepancies at the polling place

Before canvassing voted ballots, officials at the polls account for all paper ballots furnished to the polling place by counting the number of used and unused ballots of each type and using the additions and subtractions required on the return to reconcile the ballot totals.¹⁹¹⁹ Officials must also reconcile paper records with the poll books to ensure that the number of voters equals the number of ballots cast.¹⁹²⁰ According to the New York Elections Code, if a discrepancy exists, the inspectors are required to remove a number of ballots equal to the excess, and those ballots will be set aside and not counted.¹⁹²¹ In other words, the number of ballots counted would be equal to the number of voters on the poll lists, but exactly which ballots are counted would be left to random chance. Notwithstanding the foregoing, all of the election officials surveyed reported that they've either never done this or that it is not done.¹⁹²² All of the counties reported that they do not remove "excess" ballots and that

discrepancies would be referred to or handled by the Board of Elections for resolution, and that they've never experienced an excess.¹⁹²³

Because this practice would lend itself to ballot box stuffing, it is unsatisfactory as a reconciliation measure, and we recommend that it be removed from the elections code and outlawed.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county canvassing board reviews the return from each precinct for the number of voters, the number of votes for each candidate or question, and the number of unrecorded or undervoted ballots.¹⁹²⁴ If the precinct returns show any omission or error, the canvassing board may summon the election officials from the precinct in question to correct the error.¹⁹²⁵ During the re-canvass, if “it shall be found that a discrepancy exists between the number of voters who cast a vote in an election district and the number of votes recorded on the tabulated results tape plus any Election Day paper ballots counted by hand the board of elections, or the committee thereof, shall proceed thoroughly to examine all the election day paper ballots in that election district to determine the result from such election district.”¹⁹²⁶ If a discrepancy cannot be resolved by recanvassing, officials will reexamine all the Election Day paper ballots on which the votes for the precinct in question were cast in order to determine the result for that precinct.¹⁹²⁷ The canvass and recanvass are conducted to ensure the accountability and accuracy of each election,¹⁹²⁸ and the result of the reexamination supersedes the original canvass return provided by the election district.¹⁹²⁹

Make all results public

As noted above, election results are announced at the polling place after the close of polls. Results are then either phoned in to the county board of elections, or extracted directly from scanner memory cards, but either way, the county boards then post unofficial results to their respective websites, on white boards in their local offices, “and distribute their election night results by any number of other means, to ensure that interested persons can access the unofficial election night results as quickly as possible.”¹⁹³⁰ Certified election results are available to the public several weeks after the election, once all post-election tasks have been completed and certified.¹⁹³¹

The counties surveyed reported varying publication practices. One confirmed the process above, and added that “[w]e print out extra copies of the result tape and provide them to any poll watchers present at the closing of the polls” but since there is “no place to securely post the results at most polling places . . . there is no posting there.”¹⁹³² Another reported that, unlike his colleague quoted above, results are read aloud in the precinct, but not posted at the polls, and that results are posted on the Board of elections’ website as they come in.¹⁹³³ The third reported that one copy of each memory card is delivered to the Board of Elections and results are published on line after being uploaded from the memory cards.¹⁹³⁴

Recommendation: New York requires three of the best practices, although its publication requirement appears to be limited to results posting; therefore, New York’s ballot

reconciliation procedures are generally good but need improvement in specific areas. While the state has good procedures in place for ballot accounting and reconciliation at the polling place, we recommend adopting formal procedures requiring the reconciliation of precinct totals with composite totals and the reconciliation of any memory cards used at the county level. In addition, although no longer implemented or enforced, we recommend outlawing the practice of randomly discarding ballots in excess of the number of voters. Finally, we recommend that New York expand its publication requirements to include ballot reconciliation information.

North Carolina

North Carolina uses a combination of optical scan voting systems and VVPAT-equipped DREs as the standard polling place equipment. North Carolina's ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

At the close of the polls, precinct officials conduct a publicly-viewable preliminary count of all ballots, following procedures specified by the manufacturer of the voting system in use at each precinct.¹⁹³⁵ The chief judge at each precinct must print a return sheet from each voting system unit and place it in an envelope.¹⁹³⁶ Then the election judges count all ballots or votes and fill out a certified statement of returns.¹⁹³⁷ "If an official ballot is rejected by a scanner or other counting machine, but human counters can clearly determine the voter's choice, the official ballot shall be counted by hand and eye."¹⁹³⁸ One of the DRE counties surveyed reported that, thereafter, "the information is entered into our Election Reporting System manually."¹⁹³⁹ An optical scan county surveyed reported that the scanners alert voters when there is an error on the ballot, and what the error is, and if the ballot hasn't already been cast, the voter then has the opportunity to spoil that ballot and complete another.¹⁹⁴⁰

Judges must also keep consolidation and accounting sheets, which they must sign and include in the envelope with all results tapes from voting devices.¹⁹⁴¹ After this initial tally is complete, poll workers must announce and transmit the results to the county board of elections, which conducts an official canvass.¹⁹⁴² Officials in all precincts must also complete a ballot accounting form that details the number of blank ballots received and the number of voted, provisional, spoiled, and unused ballots returned.¹⁹⁴³ All of the counties surveyed confirmed this practice,¹⁹⁴⁴ and one of the DRE counties reported in addition that "and these ballots are audited a second time by [Board of Elections] staff before they are packed away with election materials for a particular election."¹⁹⁴⁵ The optical scan county survey reported that, in addition, "[a]ll machines are brought back to the County office, where memory cards are pulled and uploaded," and "[a]n audit is done and all ballots are reconciled."¹⁹⁴⁶

Reconcile vote and ballot totals and address discrepancies at the polling place

The county conducts an "election audit" before its official canvass in which election officials reconcile vote and ballot totals by precinct.¹⁹⁴⁷ Officials compare authorization to vote (ATV) form totals used by voters to obtain ballots to the machine tapes from each precinct and compare the total number of votes cast to the total number of ATVs tendered to voters in the precinct.¹⁹⁴⁸ County officials also count spoiled, unused, voted, challenged, and provisional ballots by precinct and compare those totals to the ballot accounting sheet returned by each precinct.¹⁹⁴⁹ Both DRE counties surveyed confirmed that foregoing accurately describes actual practice,¹⁹⁵⁰ while the optical scan county reported that "[t]he poll book is not part of the process" and instead "[t]he total number of registered voters is input into the tally server by precinct" and "[t]he server will notify if there is an overage."¹⁹⁵¹ County officials then "reconcile the tapes to ballot reports provided by the precinct," and the precinct is required to "reconcile all ballots against [the number] which was received."

Any discrepancies must be explained and documented.¹⁹⁵² Finally, machine counter numbers must be reconciled with the Chain of Custody form, which includes information for precinct ballot accounting.¹⁹⁵³ All of the counties surveyed confirmed this practice,¹⁹⁵⁴ although the optical scan county surveyed refers to the form as a “Ballot Control Form.”¹⁹⁵⁵ One of the DRE counties also reported that it “recommend[s] that precinct officials check these numbers periodically throughout the day against the number of ATV forms,” and that this allows for a “much more efficient closing of the precinct.”¹⁹⁵⁶

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county board of elections examines the returns from each precinct, absentee and provisional ballot totals, and the totals of the county’s “hand-to-eye paper ballot counts” to ascertain the countywide election results.¹⁹⁵⁷ All of the counties surveyed confirmed this practice,¹⁹⁵⁸ although the optical scan county clarified that “initially, absentee, provisional and one-stop ballots are each treated as [having been cast in] their own precinct. Within 60 days of the election, those ballots must be reconciled with their original precinct and included in the count for that precinct.”¹⁹⁵⁹

The county board of elections must create abstracts that include the total votes for each candidate or ballot proposal, the votes for each candidate or ballot proposal by precinct, the votes for each candidate or ballot proposal countywide, the number of votes on absentee ballots in the county, the number of votes on provisional ballots in the county, and the number of votes in any other category of official ballots not otherwise reported.¹⁹⁶⁰ The county board of elections may order a recount “when necessary to complete the canvass.”¹⁹⁶¹ County officials must audit poll books against precinct registers again after the canvass.¹⁹⁶² During the election audit, officials must compare precinct totals to the results logged on the Election Night Reporting System server.¹⁹⁶³

Make all results public

As soon as the unofficial precinct count is complete, election judges may release the results of the unofficial canvass to the media.¹⁹⁶⁴ Regardless, the State Board of Elections reports that precinct totals are added to the Election Night Return (ENR) system operated by the State Board, where county and state totals are reported as soon as they are received by the county board from the precincts. The ENR is accessed by the public and media on the State Board of Elections’ website. All of the counties surveyed confirmed that poll closing procedures are publicly-viewable.¹⁹⁶⁵ Some counties report detailed precinct results on their websites.¹⁹⁶⁶

Other than required entry of precinct returns into the ENR system, additional publication practices appear to differ from county to county. One of the DRE counties surveyed reported that it “place[s] a monitor in our hallway so that anyone that wants to [can] see the results as they are uploaded into election night reporting,” and that “[m]edia, candidates and others gather there and watch for returns.”¹⁹⁶⁷ Another reported that “precincts may post their unofficial results, but it is the [County Board of Elections] that contacts the media with

the unofficial results,” and that “[t]hose results are detailed by precinct.”¹⁹⁶⁸ The optical scan county surveyed reported that “[t]here is no posting of results at the precinct,” but rather that the Board of Elections posts results on its website.¹⁹⁶⁹ “Initially, the results are only posted as county totals, although they do indicate which precincts have reported in. Detailed results are posted at the conclusion of the unofficial tally.”¹⁹⁷⁰

Recommendation: North Carolina requires four of the best practices, although its publication requirements appear to be limited to results posting; therefore, North Carolina’s ballot reconciliation procedures are good. The state has good procedures in place for all categories and is one of only a handful of states to have formal regulations in place for memory card reconciliation. Although the county level reconciliation process includes the preparation of precinct-by-precinct and countywide results, we recommend that North Carolina enact an explicit requirement mandating that election officials reconcile precinct totals to county totals. In addition, we recommend that North Carolina expand its publication requirements to include ballot accounting information.

North Dakota

North Dakota uses optical scan voting systems statewide as the standard polling place equipment. North Dakota's ballot reconciliation procedures are **excellent**.

Account for all ballots, votes, and voters

As soon as polls close, the inspector of elections and the judges must generate a canvass report from the optical scan voting system.¹⁹⁷¹ County election officials count spoiled and unused ballots to ensure that all ballots are accounted for.¹⁹⁷² After election officials reconcile machine totals with the number of voters who signed the poll books and the number of ballots received by the precinct, the canvass reports are signed and certified and delivered to each judge¹⁹⁷³ and the county auditor.¹⁹⁷⁴ Election officials then wrap the ballots, separating them into labeled bundles of valid ballots, void ballots and spoiled ballots, and seal the wrappers.¹⁹⁷⁵

Reconcile vote and ballot totals and address discrepancies at the polling place

The number of ballots counted must be equal to the number of voters signed in on the poll list.¹⁹⁷⁶ If the number of votes on the system does not match the number of voters who signed in, election officials will examine the poll books to determine the reason for the discrepancy.¹⁹⁷⁷ One of the counties surveyed reported that election officials “count [and] recount,” and that poll books are exchanged between clerks or judges and then recounted.¹⁹⁷⁸ Another reported that, throughout the day, “[a]t the precinct level the election workers verify that the number of people registered in the electronic poll books agree[s] with the number of votes cast in the precinct level scanner.”¹⁹⁷⁹ On the “very rare occasion” that they differ, “the ballots in the scanner at the end of the night would be physically counted to agree with the scanner total and the electronic poll book total.”¹⁹⁸⁰ That official further reported that “[w]e try to resolve all discrepancies at the precinct level, if they cannot be, we try to resolve them at the canvassing board.”¹⁹⁸¹ A third county reported that the poll books “are recounted” in case, for example, “they forgot to mark someone in the poll book.”¹⁹⁸² However, it is not clear how it would be determined that that is what had occurred and was (as opposed to something else) the cause of a discrepancy.

The number of total ballots counted by the voting machine, added to the number of otherwise spoiled, void and unused ballots, is also compared against the number of ballots received by the precinct before the polls open.¹⁹⁸³ All of the counties surveyed confirmed that this accurately describes actual practice.¹⁹⁸⁴

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county canvassing board publicly reviews the results from each precinct and compares them with aggregated county totals.¹⁹⁸⁵ If the board notes any discrepancies, it may summon precinct election boards to explain and correct the problem.¹⁹⁸⁶ Once the county canvassing board has reviewed all precinct canvass reports and reconciled any discrepancies, the board prepares an abstract of results.¹⁹⁸⁷ The state canvassing board reviews the counties' certified

abstracts and may summon the county auditor if any errors, omissions or discrepancies are noted.¹⁹⁸⁸ The state canvassing board prepares a statement of votes,¹⁹⁸⁹ and the Secretary of State then records the state canvassing board's statements for each race and certifies the election.¹⁹⁹⁰ North Dakota does not use a tally server to determine official results, and no reconciliation of memory cards is necessary.¹⁹⁹¹ One county, not suggesting that tally servers are used, reported with respect to reconciliation procedures that it “get[s] totals from our Electronic Poll Books and compare[s] those to the total votes cast on the memory cards for each precinct.”¹⁹⁹²

Make results public

The process of canvassing votes in North Dakota is extremely transparent. When the polls close, the inspector of elections and the judges must generate a canvass report from the optical scan voting system in a manner that is “open to the public.”¹⁹⁹³ Ballots are to be counted at “public places” designated by the county auditor¹⁹⁹⁴ and the county canvassing board is required to “publicly canvass the returns.”¹⁹⁹⁵ The county auditor is required to publish “in tabular form in the official county newspaper the vote by precincts for each officer and each proposition voted for at any primary, special, or general election.”¹⁹⁹⁶ The state canvassing board’s preparation of a statement of the votes must be done “publicly,”¹⁹⁹⁷ and the Secretary of State must publish a copy of the certified abstract of votes in the Bismarck Tribune.¹⁹⁹⁸ All of the counties surveyed reported that the foregoing accurately describes actual practice.¹⁹⁹⁹ Counties also release canvass results which are posted by the Secretary of State on the Web and in the media.²⁰⁰⁰

Recommendation: North Dakota requires all five of the best practices summarized above; therefore, North Dakota’s ballot reconciliation procedures are excellent.

Ohio

Ohio uses a combination of optical scan voting systems and VVPAT-equipped DREs statewide as the standard polling place equipment. Ohio's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

Immediately after polls close, poll workers must count the number of electors who voted as shown on the poll books and account for all voted, spoiled and unused ballots.²⁰⁰¹ The poll workers also must cause each DRE voting machine or precinct count optical scanner, whichever is used in that precinct, to print results tapes of votes cast on that device.²⁰⁰²

After the precinct election judges complete the reconciliation process described below and certify the results, they must place all ballots, memory cards or cartridges, poll books and signature lists in containers provided by the board of elections and seal each container.²⁰⁰³ They must transmit at least one copy of the certified summary report along with the containers returned to the board of elections.²⁰⁰⁴

Reconcile vote and ballot totals and address discrepancies at the polling place

Immediately after polls close in precincts that use paper ballots, the poll workers must count the number of electors who voted as shown on the poll books and account for all voted, provisional, spoiled and unused ballots, then reconcile the number of votes cast with the number of voters who voted.²⁰⁰⁵ If there is a discrepancy, the poll workers must record an explanation on the report forms.²⁰⁰⁶ The optical scan county surveyed confirmed comparing the number of ballots to the number of voters who signed in.²⁰⁰⁷

While the statutes currently in effect do not explicitly require a comparison between vote totals recorded on direct recording equipment and voters who signed in at the polls, the Secretary of State's office considers such a comparison "useful" and "recommends that DRE counties follow this same, or similar, procedure for reconciliation."²⁰⁰⁸ A 2008 Directive from the Secretary of State addressed to all county boards of elections advocates for such a comparison,²⁰⁰⁹ and all of the counties surveyed confirmed that it was still in force for 2012.²⁰¹⁰ However, neither one of the DRE counties surveyed reported comparing votes cast to voters who signed in,²⁰¹¹ but both confirmed reconciling all voted, provisional and unused ballots.²⁰¹² One noted, however, that election officials "do not count the total [number of ballots] received initially, nor do they count spoiled ballots."²⁰¹³ We recommend legally mandating a comparison between the voters signed in at the polls and the number of all types of ballots cast for all voting systems.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The board of elections for each county conducts two canvasses of the election results. The "unofficial canvass" is conducted on election night; it is a compilation of the precinct results as shown on the summary reports certified by the precinct election judges.²⁰¹⁴ During the

official canvass, county officials count the number of ballots and reconcile that information with poll books, poll lists, tally sheets and the precinct summary reports.²⁰¹⁵ If the board observes an error, omission or discrepancy, it has the authority to make the necessary corrections, including corrections “to the pollbook, poll list, or tally sheet.”²⁰¹⁶ County officials also have the authority to subpoena precinct election officials when investigating any irregularities or omissions in precinct returns.²⁰¹⁷

The optical scan county surveyed reported that changes to a poll book might be made if, for example, “a voter didn't sign in, or . . . put their name in the wrong book,” and that other ballot accounting corrections might be made if, for example, it appears the a voter or voters left with a ballot.²⁰¹⁸ One of the DRE counties surveyed reported that “the statutory authority of the board [to correct poll books] is not used in practice” and is “unnecessary.”²⁰¹⁹ The other DRE county reported that it does not make changes to the poll books, but that other ballot accounting corrections might be made if, for example, “poll workers . . . list the total off of the machines incorrectly, or . . . added [the total] up incorrectly,” or if “the provisional ballots [were] counted along with (not separate from) the regular ballots.”²⁰²⁰

The Secretary of State’s office has issued no formal directives specifically outlining the procedures for memory card reconciliation, and the counties surveyed reported varying practices. The optical scan county reported that memory cards are uploaded and tallied, and that the number of ballots is compared against the ballot reconciliation sheet.²⁰²¹ One of the DRE counties surveyed reported that memory cards are “checked in” so the GEMS server has a record of how many are issued before any are sent to the precincts, and the number of cards assigned to each precinct is recorded; “[a]s they are returned election night, they are reconciled,” the GEMS server “records them as they come in,” and “[i]f any are missing it is clearly indicated” and they are tracked down.²⁰²² The other DRE county reported that the total number of memory cards delivered to the polls and returned is recorded, and that when the cards are returned they are run through the GEMS server; “[t]he totals are then lifted and compared with those gathered at the poll.”²⁰²³

County officials must then certify and return abstracts of results for each office and question on the ballot.²⁰²⁴ We recommend mandating a comparison of totals tapes to tally server totals in all jurisdictions that use memory cards.

Make all results public

One copy of the election results from each precinct must be posted outside the polling place at the completion of vote-counting.²⁰²⁵ After the county officials determined the result of the official canvass, they must post the certified declaration of the results in a conspicuous place in the board office for at least five days.²⁰²⁶

The optical scan county surveyed reported that “[t]he election report is printed and given to everyone who wants it” and that “all pages of the report are posted on the front window of the Election Office.”²⁰²⁷ One of the DRE counties surveyed reported that the unofficial statement of votes cast is posted on line on election night, and can be picked up in hard copy the next day, and that official results are posted on the website 10 days later and are

similarly available in hard copy.²⁰²⁸ The other DRE county reported that the canvass report and machine totals are posted “outside [the] office before they leave” and that the results are also posted on line.²⁰²⁹

Recommendation: Ohio requires two of the best practices, although its publication requirements appear to be limited to results posting, and conducts a third in practice; with respect to a fourth best practice (requiring a comparison of votes to votes at the polling place), Ohio requires it for optical scan counties. Therefore, Ohio’s ballot reconciliation procedures are generally good but need improvement in specific areas. The state has good procedures in place for ballot accounting and reconciliation at the precinct level and some good reconciliation procedures at the county level. However, we recommend making explicitly clear requirements for the reconciliation of the number of voters with the number of ballots cast for all voting systems, for reconciling precinct totals with county totals, and for the reconciliation of memory cards with tally server totals. In addition, we recommend that Ohio expand its publication requirements to include ballot reconciliation information.

Oklahoma

Oklahoma uses optical scanners statewide as the standard polling place equipment. Oklahoma's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

After the close of the polls, the inspector at each polling place must run a number of printouts predetermined by the State Election Board from each "voting device,"²⁰³⁰ defined as "an optical scanning apparatus that electronically counts votes marked on ballots and produces printed results."²⁰³¹ The inspector, elections judge and clerk each sign all printouts and certify that they are correct.²⁰³² This constitutes the official return from the precinct, one copy of which will be forwarded to the State Election Board.²⁰³³ Officials then remove the election results storage medium from the voting device,²⁰³⁴ open the ballot box, and place all ballots and a copy of the signed certificate of vote in a transfer case.²⁰³⁵ All of these materials are forwarded to the county election board.²⁰³⁶

One county surveyed reported that officials "bring in the entire [optical scan] voting device and we remove the storage medium," but that "[t]he ballots and certificate of vote are sealed in a transfer box and brought in" as described above.²⁰³⁷ Another confirmed that "the certificate is the tape off of the machine,"²⁰³⁸ also as described above.

Reconcile vote and ballot totals and address discrepancies at the polling place

Oklahoma law does not require precinct officials to compare the number of ballots cast in each precinct to the number of voters who signed in, nor does the state informally require this practice.²⁰³⁹ Officials do, however, reconcile the number of ballots received with the number of ballots returned to the county.²⁰⁴⁰ After the polls close, precinct officials in every precinct complete a ballot accounting form, which includes that reconciliation and documents the number of ballots that were received, issued, spoiled and remaining for each style of ballot within that precinct.²⁰⁴¹

One county surveyed reported that the referenced accounting is "done for each ballot style" and that county officials conduct "additional checks and balances."²⁰⁴² Another also confirmed the practice, and explained that it was necessary because "depending on the election, voters may have multiple ballots" (for school, city or state elections), and, therefore, "voter totals might not match ballot totals, since they may have two eligible ballots to return."²⁰⁴³

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county elections board convenes to canvass the vote, accumulating and listing the results of each election based on precinct returns.²⁰⁴⁴ Oklahoma law requires the county elections board to use precinct returns to certify the composite county totals²⁰⁴⁵ by comparing these returns to tally server totals shown after each memory pack is uploaded.²⁰⁴⁶ Once the county elections board ascertains the results, it certifies the vote totals for each

candidate or question.²⁰⁴⁷ The Oklahoma State Election Board confirms that there are procedures in place to ensure that all memory packs are correctly read by the tally server.²⁰⁴⁸ In particular, the county election board verifies the accumulated county results against the precinct results, and precinct totals are confirmed to match uploaded results by the board.²⁰⁴⁹ Uploaded results are considered “unofficial”²⁰⁵⁰ until precinct results are used by the county election board to certify county election results after 5 p.m. on the Friday following the election, and county results are used by the state election board to certify state results after 5 p.m. on the Tuesday following the election.²⁰⁵¹ Two of the counties surveyed clarified that results are not certified until after all provisional ballots deemed legitimate have been counted.²⁰⁵²

Make all results public

After election officials generate totals sheets from each machine, they are required by law to post one copy outside the polling place.²⁰⁵³

Recommendation: Oklahoma requires three of the best practices, although its precinct-level ballot accounting appears to be limited to gathering and returning materials to the central office, and its publication requirement appears to be limited to results posting; Oklahoma appears to conduct a fourth best practice in practice; therefore, Oklahoma’s ballot reconciliation procedures are generally good but need improvement in specific areas. We recommend that Oklahoma enact a requirement mandating that election officials conduct detailed ballot accounting at the precinct level and reconcile the number of votes cast to the numbers of voters signed in at the polls, and explicitly require that precinct totals be compared to county totals. In addition, we recommend that Oklahoma expand its publication requirements to include ballot reconciliation information.

Oregon

Oregon conducts elections by mail statewide and uses central count optical scanners. Oregon's ballot reconciliation procedures are **good**.

Account for all ballots, votes and voters at the polling place

Oregon votes entirely by mail. Immediately after 8 p.m. on Election Day, the county clerk must account for and destroy all unused absentee and regular ballots.²⁰⁵⁴ All of the counties surveyed confirmed that this is an accurate statement,²⁰⁵⁵ but one of them pointed out that "it is important to note that this language is rooted in the prior practice of polling place elections and was inadvertently left in the statutes," and that in practice there are exceptions.²⁰⁵⁶ Voted ballots are then tabulated by precinct.²⁰⁵⁷

If ballots are counted on a tally machine, the machine must be publicly tested and certified by the county clerk,²⁰⁵⁸ "in accordance with statutes and administrative rule[s]."²⁰⁵⁹ If ballots are counted by a counting board, the county clerk is present during the tally process. Statutes allow certain party officials to be present,²⁰⁶⁰ and current Secretary of State procedures allow any member of the public to be present as well.²⁰⁶¹ Ballots may be tabulated by a counting board at the precinct, or in the county clerk's office.²⁰⁶² One county surveyed reported that "it depends on the precinct," but that county counts ballots "at the office,"²⁰⁶³ and another county reported that its counting board "meets in the court room."²⁰⁶⁴

In Oregon's vote-by-mail system, a "precinct" is defined as a contiguous geographic area (to the extent possible or practical²⁰⁶⁵) in a single legislative district, with a maximum of 5,000 electors,²⁰⁶⁶ which is created by the county clerk in order to separate ballots into batches.²⁰⁶⁷

Reconcile vote and ballot totals and address discrepancies at the polling place

Election officials count all ballots received by 8 p.m. on Election Day from the post office, over the counter at the county clerk's office and at drop sites, and account for ballots forwarded to other counties, ballots returned unsigned and ballots returned undeliverable.²⁰⁶⁸ County clerks are also encouraged to maintain an audit trail, which "may include" number of ballots issued, received, counted, rejected, challenged, etc.²⁰⁶⁹ Oregon's vote-by-mail system does not lend itself to reconciliation of the number of voters signed in with the number of ballots cast, given that this reconciliation is conducted in other states using poll books. Officials must, however, compare the number of ballots tabulated to the number of return identification ballot envelopes or the voter history log for each precinct.²⁰⁷⁰ County officials must address any discrepancies before certifying the results of the election.²⁰⁷¹

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

As soon as possible after any election, but no later than the 20th day after the election, the county clerk must prepare an abstract of the votes and record a summary of votes for each office, candidate and ballot question.²⁰⁷² The Secretary of State canvasses votes for all offices no later than the 30th day after the election.²⁰⁷³

A tally server is not employed in a statewide canvass; the Secretary of State's office reports that those counties whose vote tabulation systems require them to transfer memory card data to a tally server "have control and reconciliation procedures in place," for tracking memory cards.²⁰⁷⁴ One county surveyed reported that it loads memory cards into a tally server, and conducts a reconciliation of the cards, and that it also "reconcile[s] voted ballots with those that have been mailed out."²⁰⁷⁵ Another county reported that it "reconcile[s] its] vote tabulation system counts against [its] processing counts for incoming ballot[s] via several check and balance systems."²⁰⁷⁶ A third county, which is small, reported that it does not load memory cards into a tally server but rather that "[t]he voting machine prints a report" and "[t]he only reconciliation is between ballots cast and the electronic report."²⁰⁷⁷

There is no statutory requirement for counties or the state to compare precinct totals with composite totals, but Oregon now requires all counties to send electronically the results of any election in each precinct to the Secretary of State.²⁰⁷⁸ We recommend reconciling precinct totals to county totals as an element of the county canvass.

Make all results public

Each tally sheet, return sheet and ballot return envelope used in the unofficial precinct-level canvass must be kept on record for two years after any election.²⁰⁷⁹ According to the Secretary of State, the public (space permitting) may observe all processes of an election "as long as they have made prior arrangements with the county elections official and it does not interfere with the elections processes."²⁰⁸⁰ In addition, the Secretary of State posts election results on its website.²⁰⁸¹ One county surveyed reported that it "publicizes results as soon as possible" after eight o'clock on election night.²⁰⁸² Another reported that "[w]atchers, observers and guests are welcome to tour our facility and observe our process throughout each election cycle" and that the county "post[s] the local election results on [its] website first and then send[s] them to the State."²⁰⁸³ A third reported that its counting board, which meets in a court room, meets "under camera" and that "there is ample room for observers."²⁰⁸⁴

Recommendation: Oregon's vote-by-mail system of conducting elections makes the best practices recommended in this report at the polling place level unnecessary; however, Oregon requires three of the best practices, some of which are carried out at the county level rather than the precinct level, and some counties conduct another in practice. Therefore, Oregon's ballot reconciliation procedures are good. While the state has some good procedures in place for ballot accounting and making results public, we recommend that Oregon require election officials to reconcile precinct totals to county totals as an element of the county canvass, and enact rigorous and mandatory memory card reconciliation procedures for all counties that use memory cards.

Although Oregon's ballot accounting and reconciliation procedures are good, and although vote-by-mail makes the precinct-based best practices unnecessary, vote-by-mail systems have a higher risk of voter coercion than in-precinct voting, and states should take that into account if considering conducting elections entirely by mail.

Pennsylvania

Pennsylvania uses a combination of paperless DREs and optical scanners as the standard polling equipment statewide. Pennsylvania's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters

At the close of the polls in precincts where paper ballots are used, officials total, announce and record the number of ballots given to electors, cast, and spoiled, and unused.²⁰⁸⁵ Officials then count them one by one, and record their total number.²⁰⁸⁶ Then the judge or minority inspector reads aloud the votes for each candidate, and/or question on each ballot as clerks record what is read.²⁰⁸⁷ A separate tally is kept for straight party ticket votes.²⁰⁸⁸ The optical scan county surveyed did not confirm keeping a separate tally but indicated that other jurisdictions may do so.²⁰⁸⁹

In districts where electronic voting systems are used, which employ paper ballots and provide for in-district tabulation, the number of ballots issued to voters and the number of ballots spoiled or returned by voters and canceled shall be announced to all present in the polling place and entered on the general returns.²⁰⁹⁰ Officials then compare the number of names marked as voting in the district register to the numbered lists of voters, announce the result of that comparison, and enter on the general returns the number of voters who have voted.²⁰⁹¹ The officials use "the automatic tabulation equipment to tabulate the ballots cast during the election and shall prepare duplicate records of the total number of voters whose ballots have been tabulated."²⁰⁹² If "district tabulation of votes is not provided for by the voting system, the Judge of Elections" prepares a report of the number of people who have voted, as well as the number of spoiled and unused ballots.²⁰⁹³ The optical scan county surveyed confirmed the foregoing, but clarified that whether or not the announcement referred to above was made, the ballots "are all accounted for in the final count."²⁰⁹⁴

Where electronic voting systems that do not employ paper ballots are used, immediately upon the closing of the polls election officials are required to "[c]ause the automatic tabulating equipment to tabulate all ballots cast during the election."²⁰⁹⁵ Both of the DRE counties surveyed confirmed the foregoing, and one added that "[w]e close the machines, print reports, tally absentee ballots, return supplies back to courthouse."²⁰⁹⁶ Election officials then prepare duplicate records of the total number of voters whose votes were tabulated, voters for each candidate and for and against each question, and write-in votes, and then post the return as noted below.²⁰⁹⁷

In precincts using either system, the Pennsylvania elections code provides that code election officials shall sign the returns and deliver them to the county board once the count is complete.²⁰⁹⁸ Officials then lock and seal the district register and the voting checklist.²⁰⁹⁹

Reconcile vote and ballot totals and address discrepancies at the polling place

After the polls have closed, election officials must count the total number of ballots and compare that total to the number of voters who signed in on the checklist.²¹⁰⁰ If any discrepancies exist, they must be reconciled, if possible, and if not they are noted on the

general return as unresolved.²¹⁰¹ In precincts that use voting machines, officials must compare the number of votes cast on the machine – as shown on the public counter – with the check list.²¹⁰² One of the DRE counties confirmed the foregoing,²¹⁰³ and the other reported that “[t]hroughout the day, poll workers check the poll books and the counters, but there is no reconciliation required at the close of polls. Such reconciliation is done during the canvas as part of the audit.”²¹⁰⁴ The optical scan county reported that the foregoing procedure results in a “first signature, which leads into a five day challenge period, [after which] a second signature actually certifies the election.”²¹⁰⁵

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county board of elections receives precinct returns and compares the number of votes cast with registration in the precinct, and if the number of ballots cast for each party or total exceeds the number of party registrants or total number of voters, respectively, in a particular precinct, the board will investigate the discrepancy.²¹⁰⁶

Officials read the recorded number of cast, spoiled and unused ballots and compare those totals with returns from each precinct, where voting machines are used, officials read the counter numbers and compare them with the returns.²¹⁰⁷ All of the counties surveyed confirmed this.²¹⁰⁸ Again, if there appear to be any discrepancies, the board shall investigate the matter to its satisfaction.²¹⁰⁹

Pennsylvania has no formal procedures in place to ensure that memory cards are properly loaded onto the tally server. The counties surveyed reported various memory card reconciliation practices. The optical scan county reported that “[e]verything is checked and everything balanced” and that that county “goes above and beyond what is required by the state.”²¹¹⁰ One of the DRE counties surveyed reported that “[t]he cartridges are sent to eight locations, and sent upline to the Central [Board of Elections] office,” and that “[t]he tapes and the uploaded data are compared during the audit.”²¹¹¹ The other DRE county described a procedure that appears to be more of a ballot reconciliation procedure than a memory card reconciliation procedure.²¹¹² While it appears that some counties informally conduct memory card reconciliation, we recommend adopting standardized, statewide procedures for the reconciliation of memory cards with totals logged on tally servers.

Make all results public

After votes are tallied in each precinct, officials must post one copy of the certified return outside the polling place.²¹¹³ In the event that district tabulation of votes is not provided for by the voting system, it is “the responsibility of the county board of elections to make available to the public at the central tabulating center, the election results for each election district.”²¹¹⁴ The board must also post the returns in each precinct “no later than 5 p.m. on the second day following the election.”²¹¹⁵ All of the counties confirmed posting results at the precincts after the election.²¹¹⁶

Recommendation: Pennsylvania requires three of the best practices, although its publication requirement appears to be limited to results posting, and conducts a fourth in practice; therefore, Pennsylvania’s ballot accounting and reconciliation procedures are

generally good but need improvement in specific areas. The state performs well on precinct level ballot accounting and reconciliation; however, we do recommend that Pennsylvania explicitly require that election officials reconcile precinct totals with county totals at the county level, and that Pennsylvania adopt standardized, statewide procedures for the reconciliation of memory cards with totals logged on tally servers. In addition, we recommend that Pennsylvania expand its publication requirements to include ballot reconciliation information.

Rhode Island

Rhode Island uses optical scanners statewide as the standard polling place equipment. Rhode Island's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

The precinct warden prints out and signs vote totals from each voting machine in the precinct and reads the results aloud.²¹¹⁷ Write-in ballots are sent immediately to local boards of canvassers, who will count and record all such ballots.²¹¹⁸ Machine-result printouts are attached to return forms (which include a record of the number of voters on the poll list and the number of votes cast on each machine) and sent to both local board of canvassers as well as state board of elections.²¹¹⁹ In addition, poll workers are required to “balance” the number of ballots cast with the number of ballots used, and if those numbers cannot be reconciled, they must complete a “Discrepancy Report” and transmit it to the board of elections.²¹²⁰ The Discrepancy Report may be reviewed during audits and recounts.²¹²¹

Reconcile ballot totals and address discrepancies at the polling place

State statutes require that each precinct must record the numbers of names checked on the voting list in the precinct as well as the number of votes cast in the precinct's optical scan machine.²¹²² While Rhode Island law does not explicitly require the comparison of these two totals, a representative of the state board of elections reports that poll workers are required to reconcile these totals on the official election certificate.²¹²³ Both of the election officials surveyed confirmed that they do this in practice.²¹²⁴ We recommend explicitly requiring the comparison of the number of ballots cast to the total number of voters as a matter of law or regulation.

The Secretary of State's office ultimately keeps track of spoiled and unused ballots.²¹²⁵ The state board of elections audits all precincts after an election, and part of this audit involves a comparison of the number of unused/voided ballots and the number of voted ballots.²¹²⁶ The audit is designed to ensure that the number of voted ballots added to the total number of unused/voided ballots equals the number of ballots originally sent to the precinct.²¹²⁷ While this procedure is quite thorough, we recommend requiring poll workers to account for all ballots during the precinct canvass.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The local canvassing board meets the day after the election to tabulate the local returns, and after the time period to contest results has passed, certifies local elections.²¹²⁸ The local board of canvassers certifies the local elections with a statement of the number of votes cast in the city or town for each candidate and for and against any proposition.²¹²⁹ The state board of elections, in turn, certifies statewide elections and sends a statement of vote to the Secretary of State, which includes total numbers of votes by district, town, and city for any candidate or proposition.²¹³⁰

The board of elections verifies the precinct totals by comparing the election tape with the total number of ballot applications, and with the results electronically transmitted from the local boards to the board of elections on election night.²¹³¹

Make all results public

At the close of the polls, a copy of the results tape from each optical scanner is required to be posted at the polling place.²¹³² The board of elections and local election official surveyed confirmed they do this in practice.²¹³³

The board of elections must keep record books of votes cast for each office.²¹³⁴ Each book must contain a record of the total votes cast for each candidate in each district according to the board, the total number of votes cast in each district according to the certification, the number of votes cast for each candidate in each town and city, the total number of votes cast for each candidate in the state or congressional district, and any other pertinent facts.²¹³⁵ Election results are posted on the Secretary of State's website.²¹³⁶

Recommendation: Rhode Island requires three of the best practices; therefore, Rhode Island's ballot reconciliation procedures are generally good, but need improvement in specific areas. While the state's procedures in place for ballot accounting and reconciliation at the precinct-level are good, and its publication requirements appear to be more comprehensive than simply requiring results posting, we recommend that Rhode Island enact an explicit requirement that election officials reconcile the number of ballots cast to the total number of voters at the polling place and require poll workers to account for all ballots during the precinct canvass. In addition, we recommend that Rhode Island require election officials to compare precinct totals to county totals, and to that extent that memory cards are used, that Rhode Island enact rigorous memory card reconciliation procedures.

South Carolina

South Carolina uses paperless DREs as the standard polling place equipment statewide. South Carolina's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters

After locking machines against further voting at the close of the polls, election managers print and post a results tape on the wall of the polling place showing the precinct tally from each DRE.²¹³⁷ Although the law states that “[n]o tally sheets or return blanks . . . need be furnished or used when voting machines are used, and no ballots need to be returned with the machine results except the provisional and failsafe ballots,”²¹³⁸ according to the State Election Commission, tally sheets and return blanks “*are* required to be returned by the managers” along with all emergency, failsafe, and provisional ballots.²¹³⁹ In addition, the State Election Commission “recently implemented new opening and closing checklists for poll managers, which document among other things the number of signatures on the poll list and the number of ballots cast by each type of ballot (emergency, provisional, failsafe, and DRE).”²¹⁴⁰ Poll managers must endorse a certificate that includes the number on the protective counter of each machine and return this certificate to the county election officials,²¹⁴¹ along with the poll list, the boxes containing the ballots and a written return of the election.²¹⁴²

One of the counties surveyed reported that the certificate “includes the zero count on the machine in the morning, and the final total at the close of polls.”²¹⁴³ Another reported that “every ballot is reconciled by way of [a] numbering system on the bottom of the ballot which is included on the certificate,”²¹⁴⁴ and a third reported that the poll lists are returned to ensure that each voter is credited with voting.²¹⁴⁵

We recommend that South Carolina update its elections code to make it clear that all election records must be retained and returned after the close of polls.

Reconcile vote and ballot totals and address discrepancies at the polling place

All of the counties surveyed reported comparing the number of signatures in the poll books with the number of votes cast in each precinct.²¹⁴⁶ If the number of votes tabulated on voting machines exceeds the number of voters on the poll list, vote totals for each candidate will be reduced proportionately to the fraction of the votes he or she received to reconcile the totals (unless the excess is 10% or more, in which case a new election may be ordered).²¹⁴⁷ According to the State Election Commission, the “primary method of addressing discrepancies is to investigate the cause and resolve the discrepancies,” and the “[r]eduction of vote totals under the procedures described in this section is very rare.”²¹⁴⁸ Doing so is essentially an electronic version of removing excess ballots from the ballot box at random, and it is an unsatisfactory method of reconciliation. We recommend outlawing the practice, and officially requiring the practice of investigating the cause of any discrepancies and seeking to resolve or at least explain them.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county board of canvassers reviews the results provided by the precincts.²¹⁴⁹ Although this process is not required by law, county election commissions are required to compare paper voting machine total tapes to electronic precinct-level totals, and all of the counties surveyed confirmed doing so.²¹⁵⁰ If they discover a discrepancy during this comparison, they must locate the error and correct it before certifying the results. One of the counties surveyed reported that it “does an audit and reconciliation before certification.”²¹⁵¹ Another reported that although it conducts the comparison, it “[does] not change any votes;” rather, it “call[s] the polling place in question to establish what the error was, and this query must be answered before the results can be certified.”²¹⁵²

The board of canvassers must make a certified statement of the results from each precinct, which it forwards to the state board of canvassers;²¹⁵³ results are separated by candidate and the votes for each.²¹⁵⁴ The state board of canvassers receives these canvassed precinct returns and makes a statement of the total number of votes received by each candidate or question.²¹⁵⁵ According to the counties surveyed, this statement is broken down by precinct.²¹⁵⁶

There are no formal laws or procedures in place governing reconciliation of memory cards with tally server totals. In addition, a recent investigation into the 2010 primary election in South Carolina revealed significant problems with memory card usage, including cards still in terminals and some that were never returned to county officials.²¹⁵⁷ The report also stated that South Carolina reuses these cards, without being required to save the data that is erased before secondary use.²¹⁵⁸ However, the State Election Commission reports that the data from memory cards used in general elections is saved for approximately two years as required by law, and that it recently introduced a polling place supply checklist to help county election commissions track and account for polling place supplies, including flash cards.²¹⁵⁹ State Election Commission “guidance for the treatment of flash cards is that they should be removed on election night and secured” and that “[o]nly after insuring the data on the flash cards has been downloaded and properly saved, should the cards be used again.”²¹⁶⁰ Finally, the State Election Commission recently developed a pre-certification audit process, which is mandatory after every state-level election and required to take place before certification, and through which the information on the flash cards in all machines used in the election is analyzed and compared against the vote totals reported by each machine in an effort to detect errors in the canvassing process from the poll manager level to the county and state levels.²¹⁶¹

All of the counties surveyed confirmed conducting the audit and reconciliation process described above.²¹⁶² One reported that memory cards are entered “[o]ne by one” and then “saved before being cleared and tested before being used in the next election.”²¹⁶³ Another reported that “[a] the precinct level, they gather the audit data with a PEB [personal electronic ballot] which will notice if any machine has been missed,”²¹⁶⁴ and a third reported that “[i]f any memory cards were missing, the numbers would be incorrect.”²¹⁶⁵

Make all results public

County canvassing boards are required by law to file duplicate statements of the canvass with the office of the clerk of the county or, if there is no clerk duly qualified according to law, in the office of the State Election Commission.²¹⁶⁶ The State Election Commission also publishes its certified statement of the results of the election in at least one of the public newspapers in the state.²¹⁶⁷ Detailed precinct results for each county are posted on the State Election Commission website.²¹⁶⁸

Recommendation: South Carolina requires four of the best practices, although with respect to the requirement to reconcile votes cast to voters at the polling place, in the rare instance in which there is an excess, excess ballots are removed at random; therefore, South Carolina's ballot reconciliation procedures are generally good, but need improvement in specific areas. While the state has good procedures in place for ballot accounting at the precinct-level, memory card reconciliations at the county-level, and making results public, its precinct-level reconciliations are unsatisfactory. We recommend discontinuing and outlawing the practice of reducing vote totals to resolve discrepancies and replacing it with an official requirement to investigate the cause of any discrepancies between the number of voters and the number of votes cast and seek to resolve or at least explain them. We also recommend that South Carolina codify its good procedures for ballot accounting at the precinct-level and memory card reconciliation at the county-level, and that it implement explicit, statewide requirements to reconcile precinct totals to county totals.

South Dakota

South Dakota uses optical scan voting systems as the standard polling place equipment statewide. South Dakota's ballot reconciliation procedures **need improvement**.

Account for all ballots, votes, and voters at the polling place

At the close of the polls, poll workers seal the ballot box and transport it to a central count location.²¹⁶⁹ If automatic tabulation is used, the printed results are made available to the public and are presented to the canvassing board for certification.²¹⁷⁰ All election materials, including the "sealed ballot box, together with the pollbook and duplicate tally sheet, registration lists, and the envelope containing the unofficial returns" must not be tampered with and must be returned to the officer in charge of the election; violating this requirement constitutes a felony.²¹⁷¹

Reconcile vote and ballot totals and address discrepancies at the polling place

The number of voters who signed the poll books is compared to precinct returns at the county level, not at the precinct or at central count locations.²¹⁷² We recommend comparing the number of ballots cast to the number of voters signed in during the initial ballot count.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county canvassing board considers the poll books²¹⁷³ and the returns from each precinct to make an abstract of the votes cast for each candidate or question.²¹⁷⁴ County officials reported comparing the poll books to the recap sheets and the optical scanner tape.²¹⁷⁵ Two of the counties surveyed confirmed that this reflects actual practice,²¹⁷⁶ and one added that "[o]ur optical scan ballot counter generates a report that we compare to the poll books and recap sheets."²¹⁷⁷

The county auditor enters the returns "into the central election reporting system by using any computer located in a county office which is properly configured and linked to the central state computer"²¹⁷⁸ and, according to the Secretary of State's office, the canvassing board compares them to paper returns from each precinct.²¹⁷⁹ The county auditor immediately sends a copy of the county canvass to the Secretary of State.²¹⁸⁰ In addition, "if the copy is faxed or sent by electronic means, the original certified copy shall also be mailed or hand delivered."²¹⁸¹ During the state canvass, officials compare the county canvass to county totals reported in the central election reporting system.²¹⁸² We recommend comparing precinct totals to county totals as an element of the county or state canvass.

Make all results public

The results printed from each automatic tabulator constitute the unofficial return, and these returns are made available to the public.²¹⁸³ The county auditor tabulates election returns as they are received from the precincts, entering the information into the state's central election reporting system and making the results available to the public.²¹⁸⁴ All of the counties surveyed confirmed that the foregoing reflects actual practice.²¹⁸⁵

Recommendation: South Dakota requires three of the best practices, however, its precinct-level ballot accounting procedures appear to be limited to gathering and returning materials to the central office, its requirement to reconcile the number of votes to the number of voters is conducted at the county level rather than at the precinct, and its publication requirement appears to be limited to results posting. Therefore, South Dakota's ballot accounting and reconciliation procedures need improvement. We recommend that South Dakota enhance its precinct-level ballot accounting requirements, require the reconciliation of votes to voters at the polling place, require the reconciliation of precinct totals to county totals as an element of the county or state canvass, and, to the extent used, require the reconciliation of memory cards. In addition, we recommend that South Dakota expand its publication requirements to include ballot reconciliation information.

Tennessee

Tennessee uses paperless DRES as the standard polling place equipment statewide except that two counties use optical scanners. Tennessee's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

In precincts where electronic voting machines are used, after the polls have closed judges (a term Tennessee uses to refer to "poll workers") lock machines against further voting and sign a certificate that includes the number of voters as shown on the public counters and the number of voters on the protective counters.²¹⁸⁶ Officials also print out three totals tapes, two of which are sent to the county at the conclusion of election night. Then, judges open the counter compartment in full view of all watchers and one judge under the scrutiny of another of a different political party reads aloud the designation for each candidate or question and the votes for each as registered by the counters.²¹⁸⁷ Registrars record these votes on duplicate tally sheets and read aloud what they have recorded.²¹⁸⁸ The Secretary of State confirmed all of the foregoing.²¹⁸⁹

In precincts where ballots and scanners are used (three counties in Tennessee currently use optical scanners),²¹⁹⁰ immediately after the polls close and before any ballot box or voting machine is opened to count votes, precinct officers tear in half all unused ballots and keep only the numbered stubs.²¹⁹¹ Officials deliver locked ballot boxes, poll books, returns and all remaining election supplies or equipment (except voting machines) to the county election commission.²¹⁹² The Secretary of State confirmed all of the foregoing.²¹⁹³

Reconcile vote and ballot totals and address discrepancies at the polling place

After the election, the commission is required to send poll books to the Secretary of State,²¹⁹⁴ but there are no legal requirements that poll workers reconcile the number of votes cast with the number of voters who signed the poll books. However, the Secretary of State reports that "county election offices have a reconciliation process" through which they reconcile the number of votes cast with the number of voters signed into the poll books.²¹⁹⁵ We recommend adopting formal procedures for vote and ballot reconciliation at each precinct prior to the county canvass.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county election commission meets to examine precinct returns and certify the results of the election.²¹⁹⁶ According the Secretary of State, county officials compare returns from each DRE to the total number of votes recorded in the county, and it is recommended that they compare precinct totals to county totals as an element of the canvass, and reconcile server totals with printed totals to ensure that all memory cards have been read.²¹⁹⁷ While these are good reconciliation measures, we recommend formally requiring these comparisons by law.

We encourage standardizing this procedure at the state level. Finally, officials prepare and certify an official tabulation that shows both precinct and county totals.²¹⁹⁸

Make all results public

According to the Secretary of State, one copy of the totals tapes printed out from each DRE is posted outside or inside the polling place on election night.²¹⁹⁹ Additionally, the returns from the county canvass are kept on file with the county clerk.²²⁰⁰

Recommendation: Tennessee requires only one of the best practices, ballot accounting at the precinct level, and that mostly appears to involve gathering and returning materials to the central office; however, Tennessee reportedly carries out the other four best practices in practice; therefore, Tennessee's ballot accounting and reconciliation procedures are generally good but need improvement in specific areas. While the state's procedures for reconciliation at the county level are relatively sound, precinct officials are not required to account for all ballots or reconcile the number of voters with the number of votes cast at the polling place. We recommend adopting formal procedures for vote and ballot reconciliation at each precinct prior to the county canvass. We also recommend formally requiring the reconciliation practices reported at the county level, including reconciling precinct totals with county totals, reconciling memory cards and comparing totals tapes to tally server totals. In addition, if the canvas reports filed with the county clerk are not public, we recommend that Tennessee expand its publication requirements to include ballot reconciliation information.

Texas

Texas uses a combination of optical scan voting systems and paperless DREs statewide except that eight counties use a combination of optical scanners and paperless DREs. Texas' ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

Where optical scanners are used, and in precincts whose ballots are tabulated at a central count location, after the polls have closed precinct officials seal ballot boxes and elections records for delivery to the central counting station.²²⁰¹ Officials at the central counting station examine ballots for irregularities and approve those ballots that can be machine counted.²²⁰² The counting location manager then delivers the ballots to the tabulation supervisor,²²⁰³ who oversees the tabulation of ballots by precinct.²²⁰⁴ Undervoted and overvoted ballots must be separately tallied, tabulated and reported by race and by precinct.²²⁰⁵ After all ballots are tabulated by precinct, the presiding judge at the central counting station prepares returns for each precinct that include automatically and manually counted votes.²²⁰⁶ The presiding judge then returns "the voted ballots, election returns, poll list, tally lists for manually counted votes, and other election records" to the county authorities.²²⁰⁷

In optical scan precincts where ballots are counted at the polls, election officials remove the ballots from the automatic tabulator to examine for irregularly marked ballots.²²⁰⁸ These ballots will be delivered to a central count location for tabulation.²²⁰⁹ The precinct judge signs the tape produced by the automatic tabulating equipment.²²¹⁰ The presiding judge then returns the voted ballots, election returns, poll list and tally lists for manually counted votes, and other election records to the county authorities.²²¹¹ If there is a discrepancy of more than three between the recorded total number of ballots and the total reported by the machine total tape, the central counting station will count the ballots, and that will be the official tabulation.²²¹²

In precincts where DREs are the standard polling place equipment, according to one county surveyed, election judges call their results into a central location, and reports are printed off of the voting machines.²²¹³ Election judges then "reconcile how many voters signed in, how many access codes were issued, how many expired/[were] canceled, and how many [were] completed."²²¹⁴ If there are any discrepancies, the election judges "do not leave until they can ascertain the nature of the discrepancy."²²¹⁵ Most often, according to this county, discrepancies result from voters checking in, but leaving "before they vote" and "[not telling] the judge they're leaving."²²¹⁶

Another county surveyed reported that it could not "summarize the entire process for closing the DREs" and recommended that the authors contact the voting system vendor "for the exact procedures."²²¹⁷ However, the respondent went on to explain that "[o]nce the polls have closed, the Presiding Judge records the number of ballots that have been cast on both the paper ballot counter as well as the DRE," and then "verifies [that] the number of ballots cast on the machines matches the number of names on the poll list."²²¹⁸ The Presiding Judge then also accounts for "all spoiled or cancelled ballots," and "[i]f there are

any discrepancies, the Judge notes these on the election forms,” which are returned to the elections office for examination and identification of “any problems.”²²¹⁹ Finally, “all media from the equipment is tallied.”²²²⁰

The Texas Elections Code does not appear to have been updated to include rigorous poll closing procedures where DREs are used, and we recommend that it be updated to include such procedures.

Reconcile vote and ballot totals and address discrepancies at the polling place

The precinct returns must state the number of voters on the poll list and the total number of votes counted.²²²¹ According to the Secretary of State, Texas requires a comparison of these two totals.²²²² The ballot register lends itself more readily to reconciliation, requiring the presiding official to report the total number of ballots received and the total number of defective, voted, spoiled and unused ballots returned.²²²³

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The canvassing authority prepares a tabulation of the total votes in each precinct, the sum total of votes in the county for each candidate or question, and the total number of voters in each precinct.²²²⁴ The canvassing authority may, though it does not appear to be required to, compare the precinct returns to the corresponding tally list.²²²⁵ If this comparison reveals a discrepancy, “the presiding judge of the precinct shall... make the necessary corrections on the returns.”²²²⁶ Upon completion of the canvass, the canvassing authority will return “the precinct returns, tally lists and early voting precinct report . . . to the general custodian of election records.”²²²⁷

During early voting, for precincts in which DREs are used, the early voting clerk conducts “a daily audit of the [DRE] machines used in the election to ensure proper correspondence among the numbers of ballots provided on the machines, names on the poll list, and ballots cast on the machines.”²²²⁸ For precincts in which paper ballots have been tabulated at the polling place or at a central count location, the general custodian of elections must conduct a manual recount of at least 1% of precincts or in three precincts, whichever is greater.²²²⁹ The general custodian of elections must present a report of this recount to the Secretary of State.²²³⁰

Prior to the canvass, county elections officials must reconcile vote totals printed at one percent of the precincts within their jurisdiction or three election precincts, whichever is greater, to totals recorded on the tally server.²²³¹ While this is a strong reconciliation practice, the requirement that this comparison must be made for the greater of 1% of or three precincts renders it insufficient to determine whether all precinct totals are properly logged and that their sum equals the county total as recorded. The canvassing authority is not otherwise required to compare precinct totals to county totals. We recommend reconciling vote and ballot totals countywide.

Make all results public

Any documents produced by automatic tabulators or other electronic voting system equipment must be made available for public inspection at the office of the general custodian of election records.²²³²

Recommendation: Texas requires three of the best practices, although its publication requirement appears to be limited to results posting; therefore, Texas' ballot reconciliation procedures are generally good but need improvement in specific areas. While the state has good procedures in place for ballot accounting and reconciliation at the precinct level where optical scan machines are used, it lacks analogous procedures for DRE jurisdictions, and its county-level reconciliation procedures are also unsatisfactory. We recommend that the Texas Elections Code be updated to include rigorous poll closing procedures where DREs are used, including explicit requirements to reconcile vote totals with the number of voters signed in at the polling place, and we recommend that Texas mandate that election officials reconcile precinct totals with composite totals and adopt rigorous requirements for reconciliation of memory cards at the county level. In addition, Texas should expand its publication requirements to include ballot reconciliation information.

Utah

Utah uses VVPAT-equipped DREs as the standard polling place equipment statewide. Utah's ballot reconciliation procedures **need improvement**.

Account for all ballots, votes, and voters at the polling place

At the close of polls, officials print and sign the end of the journals tape (such signatures “may follow the summary totals report”),²²³³ and retain these paper records while the election is pending.²²³⁴ Tabulation reports are to be delivered to county officials and the unofficial vote count may be transmitted by electronic means provided that reasonable security measures are in place.²²³⁵

Little information about Utah's canvassing procedures is found in statutes,²²³⁶ but one of the counties surveyed reported that it does not transmit the reports electronically, but rather “[w]e bring the memory cards that night back to the court house after polls close then we tabulate [them there] on a separate server.”²²³⁷ Another reported that “[t]abulation reports are picked up and brought back to the county officials,”²²³⁸ and a third reported similarly that it is a central count jurisdiction and that “[a]ll memory cards are returned by the poll workers to the counting center and absentee ballots are processed [there].”²²³⁹

None of the counties surveyed reported having a procedural manual in accordance with which they conduct a canvas, but all of them reported accounting for the various types of ballots used in the election.²²⁴⁰ One also reported that election officials “take the poll books and compare the names to the voter history,” that they “reconcile poll books with voter history and ballot count,” and that they “reconcile the provisional and paper ballot book[s].”²²⁴¹ Another reported that election officials prepare “detailed information of all votes cast, counted provisional ballots, provisional ballots not counted with an explanation of why they were not accepted, [and] vote totals for Election Day as well as any absentee votes that are submitted that meet postal deadlines and other criteria.”²²⁴²

Reconcile vote and ballot totals and address discrepancies at the polling place

Election officials must also provide poll workers with ballot disposition forms that have spaces for reporting the number of voted, spoiled and unused ballots and the number of voters signed in on the poll books.²²⁴³ However, there is no explicit legal requirement that poll workers must complete and return this form, and this form does not explicitly require poll workers to actively compare the number of ballots cast against the number of voters signed in at the polls.

One of the counties surveyed reported that poll workers reconcile the number of votes to the number of voters “on election night on a form on the back of the poll books” and that “98% of the time they match.”²²⁴⁴ Another confirmed using ballot dispositions forms, to ensure that “what [the polling place received in terms of ballots] is what they sent back,” and confirmed “comparing ballots cast to voters signed in.”²²⁴⁵ The third also confirmed that in all precincts, when the polls close, election officials balance “their recap sheets by

[comparing] the number of voters that have signed into the poll books with the number of votes cast on the voting machines.”²²⁴⁶

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The board of canvassers reviews the votes of each precinct for each candidate or question.²²⁴⁷ After the board determines the results, an election officer prepares a report that includes the total number of votes cast in the county, the total number of votes for each candidate or question in the county, and the total number of votes for each candidate or question in each precinct.²²⁴⁸ Two of the counties surveyed confirmed reporting all of the foregoing,²²⁴⁹ and one reported that the county report “contains the precinct count, and the final total,” and the election officials “can set it for which reports [they] want; all of the ones mentioned are available.”²²⁵⁰

With respect to memory card reconciliation, all of the counties surveyed reported doing so.²²⁵¹ One county reported that election officials make every effort to “make sure that all the memory cards have been uploaded” and also to “reconcile precinct-level totals with county totals recorded on the tabulation system.”²²⁵² Another reported that “[a]ll memory cards are checked in from each individual polling location, and that election officials “have logged in the original number given;” if the number given does not match the number returned, “we send the poll worker back to retrieve [any missing cards] from the machines.”²²⁵³ That county also reported that its “server shows how many cards were created and we verify that all cards have been uploaded in the counting process.”²²⁵⁴ While these practices are commendable, we recommend that Utah enact standard procedures for checking tally server totals to verify that all memory cards have been loaded properly, particularly because Utah uses DREs statewide.

Make all results public

The election officer must post a copy of the certified canvass report in several prominent places in the county, in a noticeable place on the county’s website and anywhere in a newspaper with general circulation in the county.²²⁵⁵

Recommendation: Utah requires only one of the best practices, publication, and it appears to be limited to results posting; however, Utah conducts three more in practice; therefore, Utah’s ballot reconciliation procedures need improvement. We recommend that Utah enact an explicit requirement mandating that election officials account for all ballots and reconcile the number of votes cast to the number of voters in the polling place. In addition, we recommend that Utah explicitly require election officials to reconcile precinct totals with county totals, and enact standard procedures for checking tally server totals to verify that all memory cards have been loaded properly. Finally, we recommend that Utah expand its publication requirements to include ballot reconciliation information.

Vermont

Vermont uses optical scanners statewide as the standard polling place equipment. Vermont's ballot reconciliation procedures are **excellent**.

Account for all ballots, votes, and voters at the polling place

At the close of the polls, election officials work in opposite-party pairs to count the ballots.²²⁵⁶ Officials keep track of votes for each candidate or question, the total number of votes, and spoiled or unused ballots on tally sheets.²²⁵⁷ After all votes are tallied, officials record the totals shown on all tally sheets and the sum of those totals²²⁵⁸ and certify a return of the grand totals of all votes cast in the polling place.²²⁵⁹ In towns that hand count paper ballots, the presiding officer "shall" publicly announce the results, and in towns that use tabulating equipment, officials "may" publicly announce the results and post a copy of the results tape.²²⁶⁰ All three of the town clerks surveyed reported that they announce results,²²⁶¹ but one clarified that "[w]e only announce results for local elections. The federal elections and that sort of thing are handled by the Secretary of State."

Officials are given 24 hours within which to transfer summary sheet data to the returns (all of the town clerks confirmed this²²⁶²), and must deliver the return²²⁶³ and the ballots, tally sheets, the "entrance" checklist and other election materials²²⁶⁴ to the town clerk, who transmits the return to the Secretary of State.²²⁶⁵

Reconcile vote and ballot totals and address discrepancies at the polling place

Before elections, the town clerk issues two checklists to the presiding officer; one to check voters before they enter and another to check voters when they leave.²²⁶⁶ After the close of the polls, precinct officials must examine both the "entrance" and "exit" checklists of voters and tally and record the number of voters checked as having voted.²²⁶⁷ The presiding officer must list and detail the reasons for any discrepancies.²²⁶⁸ If in the case of a voting machine an "exit" checklist is not used, read-out sheets and other machine materials are retained instead.²²⁶⁹ The Secretary of State's office also requires precincts to compare the checklists with the total number of ballots cast.²²⁷⁰ All of the town clerks surveyed confirmed the foregoing,²²⁷¹ and two clarified that they are hand-count towns and the voting machine provisions do not apply to them.²²⁷²

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

Canvassing in Vermont is conducted by several committees: the state representative district canvassing committees, the state senate district canvassing committees, the county officer canvassing committees and the statewide canvassing committee.²²⁷³ Canvassing committees review and tally returns to ascertain the overall votes for the district.²²⁷⁴ According to the Secretary of State, each canvassing committee collects the "Official Return of Votes Form" from each precinct, and then reconciles the precinct totals for the offices within its district.²²⁷⁵ At the state level, election administrators "data enter" the totals from each Official Return of Vote Form for each precinct.²²⁷⁶

With respect to electronic storage media, the Secretary of State reports that “Vermont has a strong chain-of-custody procedure in place for memory cards. Vermont does not use the memory cards from the 106 towns that use optical scan machines once the paper total tapes are printed. All of the rest of the tally is done by pairs of election officials. Memory cards are not used to download data into a central computerized system.” Therefore, the Secretary of State asserts, “there is no public policy reason to reconcile memory cards with totals tapes.”²²⁷⁷

Vermont has a strong chain-of-custody procedure in place for memory cards, and relies on paper totals tapes and manual reconciliation procedures in lieu of uploading vote data electronically, making memory card reconciliation unnecessary.

Make all results public

The town clerk must keep a copy of each precinct return on file to be provided for public inspection upon request.²²⁷⁸ In addition, the Secretary of State “publishes the election results for statewide elections and the general assembly on its website after the state canvassing meeting concludes around noon on the Tuesday following the election.”²²⁷⁹

Recommendation: Vermont requires four of the best practices, and (although it has strong chain-of-custody requirements for memory cards) does not use a tally server, making memory card reconciliation unnecessary. Therefore, Vermont’s ballot reconciliation procedures are excellent. We recommend only that Vermont expand its publication requirements to include ballot reconciliation information.

Virginia

Virginia uses a combination of paperless DRES and optical scanners statewide as the standard polling place equipment. Virginia's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

At the end of polling in all precincts, election officers must lock each voting device against further voting and then proceed to ascertain the number of votes.²²⁸⁰ In DRE precincts, officers announce the votes for each candidate or question as shown by machine counters or printed return sheets.²²⁸¹ Officials enter the results as read on a statement of results, which is compared with the counters or return sheets when the tally is complete.²²⁸² Officials also must count the number of names in the poll books.²²⁸³ A DRE county surveyed for the report confirmed the foregoing, but clarified that “[w]hen they finish tallying, the results are announced if there is anyone to hear them,” but “[t]he official results must be called in to our office first,” and also that it had converted to an electronic poll book from paper poll books, so the total number of voters is displayed on the poll book screen rather than obtained by counting the names in the book.²²⁸⁴

In precincts that use paper ballots, all used and unused ballots are accounted for following guidelines set by the state board of elections.²²⁸⁵ Spoiled ballots are collected in an envelope at the polls.²²⁸⁶ Elections officers must first count the total number of paper ballots and then ascertain the number of votes for each candidate or question.²²⁸⁷ Officials also must count the number of names in the poll books.²²⁸⁸ An optical scanner county surveyed similarly confirmed this, and also clarified that it had converted to an electronic poll book, which automatically updates the number of voters all day long.²²⁸⁹

After officials have determined the votes on all devices and ballots, election officers verify that all data was entered correctly and sign the statements of results.²²⁹⁰ All election materials, including voted, unused, and spoiled ballots accounted for, are sent to the clerk of court by noon on the day after the election.²²⁹¹ If devices used have the capability to print paper returns, officials must include two copies of these paper returns with the poll books and the inspection sheet, and they must forward another copy to the clerk of the circuit court.²²⁹²

Reconcile vote and ballot totals and address discrepancies at the polling place

Officials must review the number of votes cast on voting machines.²²⁹³ In jurisdictions that use DREs, if this number exceeds the number of voters who signed the poll books, “the figures recorded by the devices shall be accepted as correct,” and officials must record a statement to that effect on the statement of results.²²⁹⁴ A DRE county surveyed confirmed that “[i]f the numbers don’t match, the number on the DRE becomes the official number.”²²⁹⁵ Conducting a comparison without reconciliation or an explanation of discrepancies seems clearly to invite ballot box stuffing, and it is an unsatisfactory procedure. We recommend investigating the reason for any discrepancies and reporting any discrepancies that cannot be reconciled, and discontinuing and outlawing the current practice.

In jurisdiction that use paper ballots, after the votes have been recorded, election officers examine and count any paper ballots, and compare the total to the poll book register of individuals who voted by paper ballot.²²⁹⁶ If the comparison indicates that ballots folded together were likely cast by the same voter, these ballots are not counted.²²⁹⁷ If ballots cast still exceed the number of names on the poll books, a blindfolded elections officer must randomly withdraw ballots equal to the number of the excess.²²⁹⁸ Although an improvement over simply leaving the excess ballots in the count as is done in DRE jurisdictions, this practice too lends itself to ballot box stuffing. It is unsatisfactory as a reconciliation measure, and we recommend discontinuing and outlawing this practice. That said, an optical scan county surveyed reported that “[a]ny discrepancy between the number of voters shown in the poll book and the voters recorded on machines (DRE or optical scan) requires an explanation.”²²⁹⁹

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The electoral board determines the county results for each candidate or question and completes an abstract of votes for the county.²³⁰⁰ A DRE county surveyed reported that “[e]ach precinct fills out its own statement of results, that precinct calls in its results to the main office and the numbers are recorded in the office. The next day the electoral board takes the report, reviews the results of every precinct, double checks the numbers and those become the final results.”²³⁰¹ An optical scan county similarly reported that “[a]t precincts during Election Day [election officials] periodically check poll book and machine counts,” and if any discrepancies are discovered as of the closing of the polls, they must be explained; the next day during the canvass, the board reviews the “[statements of results], machine tapes and poll book counts for accuracy.”²³⁰² A city registrar reported that “[t]he public counter number from each voting machine that appears on the voting machine tape is entered on the statement of results and the numbers from all the machines used are totaled, and “[t]his total is compared to the official poll book count number.”²³⁰³ Next, “[t]he total number of paper ballots voted in the precinct is added to the total number of persons shown to have voted in the precinct on machines and the result is compared to the number that is recorded that was on the e-poll books at closing,” and “[i]f there is any difference between the two, then an explanation is entered on the statement of results to account for the discrepancy.”²³⁰⁴

If the electoral board finds any irregularities in the precinct returns, the board must summon the local election officials responsible for the faulty returns.²³⁰⁵ If the electoral board makes any changes to precinct results, the board must forward the change to the State Board of Elections, which will post an explanation for the change on its website.²³⁰⁶ There is no requirement that precincts compare precinct totals with composite totals; however, two of the counties surveyed reported doing so.²³⁰⁷ We recommend reconciling precinct totals with county totals as an element of the county canvass.

While Virginia has no formal memory card reconciliation procedures in place, an optical scan county reported that “[m]emory cards are not available to [the election board] at canvass” but rather that “[a]ctual machine tapes are reviewed at canvass.” The city election official surveyed, also from an optical scan jurisdiction, similarly reported that “[t]he voting equipment “does not use memory cards,” and rather that “[t]he results from the precincts

are either called into central office and verbally reported or modemed in via dedicated telephone line;” thereafter, “[t]he election results are . . . built from the hard copy results tapes printed at the polling place on election night,” making memory card reconciliation unnecessary.²³⁰⁸ The DRE county surveyed, however, simply reported that “[o]ur machines use a cartridge” and “[t]he data from each cartridge is consolidated on to a consolidation cartridge.”²³⁰⁹

Make all results public

Precinct officials must deliver copies of return sheets printed from devices that can generate paper returns to the clerk of the circuit court, who makes these records available for public inspection and transcription commencing the day after the election and for 60 days thereafter.²³¹⁰ The electoral board must deliver one copy of its county abstract to the general registrar, where it is accessible for public inspection.²³¹¹ Additionally, information is updated on the State Board of Elections website.²³¹²

Recommendation: Virginia requires three of the best practices, however, its precinct-level ballot accounting requirements appear to apply only in optical scan jurisdictions and with respect to the requirement to reconcile the number of votes to voters at the polling place, Virginia removes excess ballots at random in optical scan jurisdictions, and simply accepts the DRE total in DRE jurisdiction, both of which practices we would recommend discontinuing and outlawing. Virginia conducts a fourth best practice in practice; therefore, Virginia’s ballot reconciliation procedures are generally good but need improvement in specific areas. While the state has good procedures in place for making results public, its canvass is unsatisfactory. We recommend requiring all jurisdictions to account for all ballots at the precinct and to investigate the reason for any discrepancies and report any discrepancies that cannot be reconciled, and we recommend discontinuing and outlawing the practices of leaving in place excess votes cast on DREs and removing paper ballots in excess of the number of voters at random where paper ballots are used. We also recommend requiring all jurisdictions to reconcile precinct totals with county totals and compare totals tapes to tally server totals as an element of the county canvass.

Washington

Washington conducts elections by mail and uses central count optical scanners. Washington's ballot reconciliation procedures are **good**.

Account for all ballots, votes and voters at the polling place

Washington conducts elections by mail,²³¹³ although some voting also takes place at voting centers²³¹⁴ and voters may bring their ballots to designated deposit sites.²³¹⁵ At vote centers, at 8:00 p.m. on Election Day all ballot drop boxes must be secured.²³¹⁶ DREs may be used at voting centers,²³¹⁷ and when they are, the county auditor must directly load the results from electronic memory packs into the central accumulator.²³¹⁸ Officials must seal all drop boxes at the voting center or deposit site and deliver them to the counting center.²³¹⁹

At the counting center, county officials open ballot containers received from each vote center or deposit site, inspect and set aside damaged ballots, and tally the returns.²³²⁰ The county auditor is to tabulate ballots on a daily basis, or every three days in less populous counties, but only publishes the result when the canvass is complete.²³²¹

One of the counties surveyed confirmed that foregoing accurately reflects actual practice, except that "if there are more than 500 ballots" then the tabulation takes place "on a daily basis," and further qualified that "[w]e publish official results as counting progresses" and the results remain unofficial until certified.²³²² Another qualified that "[w]e don't have drop boxes around the county, we have one at the library and [at the county elections office]. We process them the day after the election The night of the election we take the memory card out" and "[t]he memory card is read and included into the tally."²³²³

The returns produced by the vote tallying system, which predominantly reflect absentee votes, accompanied by the total number of questioned ballots and write-in votes, constitute the official return for each county.²³²⁴

Reconcile vote and ballot totals and address discrepancies at the polling place

Because Washington conducts elections almost entirely by mail, most ballot reconciliation is conducted at the county-level. Although all registered voters are automatically mailed an absentee ballot in every election,²³²⁵ voting centers may also issue ballots, provided that officials at the voting center first confirm that the voter has not already returned a voted ballot.²³²⁶ If the voter chooses to vote on a DRE, "the voter's registration must be credited or flagged in some way as having already voted in the election [to prevent] double voting."²³²⁷ If voting center officials cannot confirm whether or not a voter already returned a voted ballot, the voter must vote by provisional ballot.²³²⁸ All of the counties surveyed either confirmed²³²⁹ or indicated generally²³³⁰ that the foregoing accurately reflects actual practice.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

Absentee ballots are opened and processed for eligibility (based on postmark date and signature matching) by the county auditor, but tabulation of absentee ballots may not commence until after 8:00 p.m. on Election Day.²³³¹

The county auditor must publish a report detailing and reconciling the number of all provisional and absentee ballots issued, received, counted and rejected against the total number of registered voters in a county, the total number of voters credited with voting, and “[a]ny other information the auditor or Secretary of State deems necessary to reconcile the number of ballots counted with the number of voters credited with voting.”²³³² Two of the counties surveyed confirmed this²³³³ and one indicated generally²³³⁴ that it accurately reflects actual practice.

The auditor is also required to issue a report of the number of absentee ballots issued and returned and the records of absentee ballot requests.²³³⁵ Two of the counties surveyed qualified this by reference to the fact that Washington votes entirely by mail; one reported that “we are not required to produce a report but we are required to track the absentee ballots,”²³³⁶ and the other reported that because all voters vote by mail, the county refers to its “complete voter list” to determine whether or not each voter that received a ballot voted.²³³⁷

The county auditor must produce cumulative and precinct returns and deliver them to the canvassing board for review,²³³⁸ “precincts” being designated areas in each county established by the county legislative authority and containing up to 1,500 active registered voters.²³³⁹ Two of the counties surveyed confirmed this²³⁴⁰ and one indicated generally²³⁴¹ that it accurately reflects actual practice, but of the two that confirmed it one reported that in that county precincts generally have only 1,000 voters²³⁴² and the other reported that its precincts generally only have 300 voters.²³⁴³

The canvassing board verifies the results from each voting center and the absentee ballots and certifies the results of the election.²³⁴⁴ If the canvassing board finds any discrepancy or inconsistency in the returns, the board may recanvass the ballots in question or voting device used, and any such recanvassing shall take place prior to certification and any errors found must be corrected.²³⁴⁵ Within two days after the election, officials are specifically required to look for any anomalies including an abnormal number of undervotes or overvotes, an odd vote distribution, or an unlikely pattern of voter turnout, and investigate the cause and correct any errors.²³⁴⁶ Two of the counties surveyed confirmed this²³⁴⁷ and one indicated generally²³⁴⁸ that it accurately reflects actual practice.

The auditor may, but is not required to, reconcile individual precinct totals with composite totals.²³⁴⁹ Two of the counties surveyed reported different practices. One reported that “[i]n a vote by mail environment, it is not the best tool because we don’t count ballots by precinct, we count them by batches,” and that “[r]econciling the individual precinct totals is not the best tool [for discovering] small scale anomalies.”²³⁵⁰ Another acknowledged that some counties sort by batches but reported that it sorts by precinct, and then goes “precinct

by precinct and compare[s] them to the totals.”²³⁵¹ We recommend requiring this reconciliation by law.

Make all results public

The precinct and cumulative returns of any primary or election are public records under Washington state law.²³⁵² The detailed county auditor’s ballot accounting and reconciliation report described above must also be made publicly available at the county auditor’s office or on the auditor’s website,²³⁵³ and the auditor’s report of absentee ballots requested, issued and returned must be made available to the public.²³⁵⁴ The auditor may also prepare a ballot accounting report for individual precincts.²³⁵⁵ Although one of the counties surveyed reported reconciling votes by batches, and one reported reconciling votes by precinct, both reported accounting for and publishing results by precinct.²³⁵⁶

Recommendation: Washington’s vote-by-mail system of conducting elections makes the best practices recommended in this report at the polling place level unnecessary; however, Washington requires three of the best practices, some of which are carried out at the county-level instead of the precinct level, and some counties conduct a fourth in practice. Therefore, Washington’s ballot reconciliation procedures are good. While the state has good procedures in place for ballot accounting and making results public, we recommend requiring the county auditor by law to reconcile precinct or at least batch totals with composite totals. In addition, to the extent they are used in the canvas, we recommend Washington enact rigorous memory card reconciliation procedures.

Although Washington’s ballot accounting and reconciliation procedures are good, and although vote-by-mail makes the precinct-based best practices unnecessary, vote-by-mail systems have a higher risk of voter coercion than in-precinct voting, and states should take that into account if considering conducting elections entirely by mail.

West Virginia

West Virginia uses optical scanners and VVPAT-equipped DREs statewide as the standard polling place equipment, except that one county uses a combination of optical scanners and VVPAT-equipped DREs. West Virginia's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

After the polls have closed in precincts that use DREs, poll workers prepare a report in quadruplicate of the number of voters who have voted.²³⁵⁷ The report shall also note the number of spoiled ballots,²³⁵⁸ referring to paper ballots spoiled or defaced by voters²³⁵⁹ and uncompleted ballots voters attempted to cast using DREs.²³⁶⁰ The election commissioners then place two copies of this report in the container provided by the clerk of the county commission, which is sealed and delivered to the clerk of the county election commission.²³⁶¹ The DRE county surveyed reported that there are four copies of the Statement of Ballots that accounts for all ballots, and that "two are hand delivered to the clerks office, one is mailed to the county clerk, and one [is] strung with the poll stubs."²³⁶² Officials also print machine results and remove the paper record from each machine for return to the county clerk along with other election materials.²³⁶³

In precincts where paper ballots are used, poll workers record the number of spoiled and unused ballots and the number of voters who signed in the poll books.²³⁶⁴ In precincts where paper ballots are hand-counted (according to the Secretary of State only two West Virginia counties are hand-count counties),²³⁶⁵ poll workers record the number of voters and the number of challenged, voted, spoiled and unused ballots²³⁶⁶ before counting all ballots, keeping a tally of votes for each candidate or question.²³⁶⁷ As soon as officials ascertain the results, they must complete and sign four certificates of return showing the number of votes in favor of every candidate and for and against each question, post one and deliver the others, along with all election materials, to the clerk of the county commission.²³⁶⁸ Precinct commissioners also prepare a ballot accounting report in quadruplicate and place two copies inside the ballot boxes and deliver the boxes to the clerk of the county election commission; according to the Secretary of State this report "refers to the Statement of Ballots which is a record of ballot totals i.e.: received, voted, spoiled, provisional, unused ballots, and not votes cast."²³⁶⁹

Where ballots are tabulated at a central counting center, in the case of votes cast on paper ballots officials remove ballots from their boxes, separate ballots with write-in votes, tabulate the regular ballots and then count the write-in votes immediately thereafter.²³⁷⁰ Both of the optical scan counties surveyed confirmed this procedure generally.²³⁷¹ Where votes have been recorded on DREs, counting center officials remove personalized electronic ballots and send them through the tabulator, with write-in votes counted contemporaneously.²³⁷² The DRE county surveyed clarified that the "personalized electronic ballot" (PEB) is "a device that records the votes from the machine, and after all machines have been closed with the PEB, it is put in a white seal bag, and hand delivered to the court house with the statement of ballots. . . . At the courthouse, all the PEBs are read into the [election reporting system], which is simply a computer, not connected to the Internet and equipped with tabulation software" and "a results report is printed out on site."²³⁷³ The returns generated

from automatic tabulating equipment, after write-in votes and provisional ballots have been added and when certified by the clerk of the county commission, constitute the official preliminary returns of that precinct's votes.²³⁷⁴

For any system, poll workers must deliver “the poll books, register of voters, unused ballots, spoiled ballots, and other records” to the clerk of the county election commission.²³⁷⁵

Reconcile vote and ballot totals and address discrepancies at the polling place

In precincts using paper ballots, officials must record the total number of voters from the poll books and compare and reconcile that total to the number of voted and challenged ballots; the number of voters and ballots are supposed to be “equal.”²³⁷⁶ One of the optical scan counties surveyed reported that “[n]othing is done at the precinct” but rather that “[a]ll reconciliation is done at the central count location.”²³⁷⁷ The other reported that “[t]he poll book slip and the ballot string are together” and that election officials “count the number of stubs and compare that with the number of unused ballots. . . . They should be balance, and they will compare if they are off.”²³⁷⁸

In precincts using optical scan ballots, officials must account for all spoiled and unused ballots and tally the number of voters who signed in the poll book and report any irregularities in the number of ballots cast or the number of unused ballots.²³⁷⁹

Where DREs are used, election officials must also “set forth in detail any and all irregularities pertaining to the . . . containers” in which election commissioners deposit reports of the number of voters who voted and the numbers of spoiled ballots.²³⁸⁰ The DRE county surveyed reported that “[p]oll workers compare poll stubs to PEB totals” and “will note and record any errors, but any discrepancies will be addressed at the canvass.”²³⁸¹

We recommend explicitly requiring corrective action in all jurisdictions whenever it is discovered that the number of voters signed in on the poll books does not match the number of ballots cast on the optical scan system or voters shown on the public counter of each DRE.

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The board of canvassers reviews the ballots, poll books, registration records, tally sheets, and certificates from each precinct.²³⁸² In precincts using paper ballots, the board recounts the number of ballots in each package as a part of the canvass.²³⁸³ In canvassing the returns from precincts using DREs, the board of canvassers must examine all vote recording devices, electronic poll books, vote tabulating equipment, and paper ballots or voter-verifiable paper records in at least 5% of the precincts within the board's jurisdiction.²³⁸⁴ If the board of canvassers suspects, or it is alleged that, a vote recorder or tabulator incorrectly recorded or tabulated the votes cast, the board must seek to determine whether such an error did occur, correct the error if found and have ballots recounted.²³⁸⁵ If the board of canvassers can't correct such errors, the vote totals must be accepted as recorded.²³⁸⁶ Once the board has determined the results of the election, they must certify the results of the election.²³⁸⁷ The

board of canvassers is not explicitly required to compare precinct totals to county totals; however, the certificate of results contains the vote totals for each candidate or question both for the county and for each precinct.²³⁸⁸

Make all results public

All returns printed by automatic tabulating equipment must be posted at the central counting center on a precinct basis, both after the initial tally and after the official canvass.²³⁸⁹ In precincts where paper ballots are hand-counted, the results are posted on the door of polling place after the initial tally.²³⁹⁰

The counties surveyed reported various practices. One of the optical scan counties confirmed that it posts returns as described above.²³⁹¹ The other reported that it “does not post precinct totals during the initial tally” but rather “posts the precinct breakdown . . . after the canvass to help protect the provisional voters privacy;” in addition, “[a] summary report is posted during the initial tally after the first 5 precincts (approximate[ly]) have reported.”²³⁹² The DRE county reported that “[u]nofficial results are available election night after election results have been downloaded and sent to the state,” and that “[o]nce it's official, results will be posted;” in addition, “[p]recinct by precinct results are available,” but there may be a copying fee.²³⁹³

Recommendation: West Virginia requires three of the best practices, but with respect to the requirement to reconcile the number of votes cast with the number of voters, some of that is done at the county-level rather than at the precinct level, and its publication requirement appears to be limited to results posting. Therefore, West Virginia’s ballot reconciliation procedures are generally good but need improvement in specific areas. While the state has relatively good procedures in place for accounting for all ballots at the polling place, we recommend that West Virginia explicitly require corrective action at the polling place, when called for, to reconcile the number of voters signed in on the poll books with the number of votes cast on any voting system. In addition, we recommend that West Virginia explicitly require that precinct totals be reconciled with county totals, and that memory cards be accounted for and reconciled, and that the state expand its publication requirements to include ballot reconciliation information.

Wisconsin

Wisconsin uses optical scanners statewide as the standard polling place equipment, with the exception of five cities or towns that use DREs but also make paper ballots available. Wisconsin's ballot reconciliation procedures are **generally good** but need improvement in specific areas.

Account for all ballots, votes, and voters at the polling place

Before tallying vote totals on tally sheets, inspectors compare and reconcile the poll lists with one another and count the total number of ballots.²³⁹⁴ According to the Government Accountability Board, all voted ballots are required to be accounted for when determining the total number of voters signed in (by reference to the number of "voter numbers issued") in comparison to the number of ballots counted, and all un-voted ballots are segregated from all voted ballots.²³⁹⁵ All of the counties surveyed confirmed that election officials compare the number of voters signed in on the poll list with the number of votes cast on the voting machines, and that voters are issued numbers when they sign the poll book.²³⁹⁶

In polling places that use automatic tabulators, officials examine the ballots for write-in votes or damage and process these ballots separately.²³⁹⁷ Inspectors must keep a written statement of the number of ballots set aside as well as the number of defective, damaged and challenged ballots, which is recorded by the election inspectors on the Inspectors' Statement.²³⁹⁸ When tallying is complete, they attach this statement to the tally sheets.²³⁹⁹ Tally sheets state the total number of votes for each candidate or question (referendum), and election inspectors shall document on the Inspectors' Statement the number of ballots cast in excess, if any, of the number of electors voting as shown by the poll list.²⁴⁰⁰ Two of the counties surveyed referred to the process of documenting excess ballots as "required,"²⁴⁰¹ and the third referred to it as "highly recommended" and reported that "it happens the vast majority of the time."²⁴⁰² Inspectors then attach the paper return from the tabulating equipment to the official tally sheet.²⁴⁰³ Inspectors then deliver all ballots, statements, lists, tally sheets, and envelopes and any other election materials to the municipal clerk,²⁴⁰⁴ who is responsible for delivering election materials including, at a minimum, tally sheets, Inspectors' Statements and one of the poll lists, to the county clerk and school district clerk.²⁴⁰⁵

Reconcile vote and ballot totals and address discrepancies at the polling place

Election Inspectors are required to verify the number of ballots cast in comparison to the number of voters signed in.²⁴⁰⁶ When the number of ballots exceeds the number of voters signed in on the poll list, officials must first check for blank ballots mixed in among the voted ballots.²⁴⁰⁷ If the number of ballots still exceeds the total number of voters, inspectors are required to mark, lay aside and preserve any ballot not bearing the initials of two inspectors or any absentee ballot not bearing the initials of the municipal clerk.²⁴⁰⁸ If the number of ballots still exceeds the total number of voters, inspectors separate absentee and regular ballots, and reconcile these numbers separately.²⁴⁰⁹ Inspectors then randomly remove a number of whichever type of ballot is in excess so that the number of voters equals the number of ballots cast,²⁴¹⁰ but according to the Government Accountability Board, this happens "[o]nly in situations where all explanations have been exhausted." Even so, because

this practice lends itself to ballot box stuffing, it is unsatisfactory as a reconciliation measure, and we recommend discontinuing and outlawing this practice.

Where ballots are counted at central counting locations, officials must compare the number of ballots delivered against the number voters signed in as reported by the polling place, note any discrepancies,²⁴¹¹ and proceed accordingly as described above.²⁴¹²

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

The county board of canvassers opens and publicly examines the returns from each municipality²⁴¹³ and reporting unit therein.²⁴¹⁴ All of the county officials surveyed reported that vote totals from each precinct are compared to the composite totals in the county, and that totals on precinct tapes are compared to results compiled centrally.²⁴¹⁵ The board of canvassers must review each precinct's tally sheet and Inspector's Statement and shall append to each statement a tabulation of the total county votes for each office and for each candidate.²⁴¹⁶ The board of canvassers makes separate statements for the numbers of the total number of votes cast in the county and in each reporting unit therein, for every office and all referenda.²⁴¹⁷

Make all results public

When the tally is complete, the inspectors are required to publicly announce the results from the statement.²⁴¹⁸ The chief inspector in each precinct reports returns to the municipal clerk, who relays this information to the county clerk, and both election officials make the results public.²⁴¹⁹ The counties surveyed reported various publication practices. One reported that "only the county clerk makes the results public."²⁴²⁰ Another reported that "[t]he municipal clerk publishes the results in their municipality . . . then the county clerk publishes the countywide results . . . [and] [t]hen the county clerk sends those to the state."²⁴²¹ The third reported that "both the county and municipal clerk make the results public."²⁴²²

Recommendation: Wisconsin requires three of the best practices, but with respect to the requirement that the number of votes be reconciled with the number of voters at the polling place, excess ballots are removed at random, a practice we recommend be discontinued and outlawed, and Wisconsin's publication requirement appears to be limited to results posting. Wisconsin conducts the other two best practices in practice; therefore, Wisconsin's ballot reconciliation procedures are generally good but need improvement in specific areas. While the procedures in place for ballot accounting are good, we recommend that Wisconsin explicitly mandate that precinct totals be reconciled with county totals, that memory cards be accounted for and reconciled, and that the state expand its publication requirements to include ballot reconciliation information.

Wyoming

Twenty-two Wyoming counties use optical scanners as the standard polling place equipment and the authors were advised as this report was being finalized for publication that one uses only DREs. Wyoming's ballot reconciliation procedures are **good**.

Account for all ballots, votes, and voters at the polling place

Election judges are required to inventory the ballots they receive and mark the total in the poll book.²⁴²³ After polls have closed at each polling place, poll books in the precinct “shall first be made to agree,” then election judges shall commence to count votes and shall continue without adjournment until counting is completed.²⁴²⁴ Election officials then cast all remaining absentee ballots on the voting machine, determine the total number of votes cast on the machine by printing a return sheet, then clearly announce the votes for each candidate and question,²⁴²⁵ however, two counties surveyed clarified that all absentee ballots are processed by an absentee ballot counting board, which runs them through voting machines throughout the day and which operates like its own precinct.²⁴²⁶ When the votes are tabulated, officials then record and certify the number of electors voting in person and absentee, the votes cast for each candidate or question, and the number of provisional ballots cast.²⁴²⁷ They are also required to “count the unused and spoiled ballots to balance the inventory of ballots they received.”²⁴²⁸ Precinct officials then transfer these unofficial tabulations to the Secretary of State,²⁴²⁹ and then transfer the sealed poll books, a sealed copy from each electronic voting system printer pack, all ballots cast, spoiled or rejected ballots, unused ballots, tally sheets and other documents to the county clerk.²⁴³⁰

Reconcile vote and ballot totals and address discrepancies at the polling place

Election judges are required to “continually verify the number of voters by checking the poll book numbering with the number of voted ballots displayed on the voting machine” and “document any discrepancies during the day by recording the discrepancy, the time, and any possible problems encountered.”²⁴³¹ Where absentee ballots are counted at the polls, if the voter has voted in person the absentee ballot will be rejected; if an absentee ballot has been processed for a voter, the voter may not vote in person.²⁴³² In either case, the first ballot processed for a voter will be the only official ballot.²⁴³³ If the number of ballots cast does not equal the number of voters recorded in the poll books as having voted, election judges must attempt to determine the cause of the discrepancy; if the election judges cannot do so, resolving the discrepancy becomes the responsibility of the county clerk and county canvassing board.²⁴³⁴

Reconcile precinct totals to county totals, and reconcile memory cards at the county level

Prior to the county canvass, the county clerk must examine the poll books, tally sheets, precinct certifications and other materials, summarize the votes cast in each precinct for every candidate or question, and count the write-in votes.²⁴³⁵ With respect to absentee ballots counted at counting centers, election officials are required to attempt to verify with the county clerk whether or not a voter has already submitted an absentee ballot before issuing a

ballot at the polls, and if the determination cannot be made, the voter will be offered a provisional ballot and the canvassing board will determine whether or not to count it.²⁴³⁶

The county canvassing board then meets and performs or reviews a reconciliation of ballots by precinct,²⁴³⁷ reviews and counts eligible provisional ballots²⁴³⁸ and reviews and certifies the county clerk's abstracts.²⁴³⁹ The Secretary of State then prepares a statewide abstract of votes by county, which it reconciles to the official abstracts of the county canvassing boards,²⁴⁴⁰ and then sends to the state canvassing board to review and certify.²⁴⁴¹ Wyoming does not use a tally server,²⁴⁴² and one of the counties surveyed clarified that "[t]he memory cards are taken from the [optical scanners] to the County Office where they are downloaded," after which the results are printed and sent to the Secretary of State.²⁴⁴³

Make all results public

While the tabulation of votes at the precinct level is conducted privately, with only election judges authorized to be present,²⁴⁴⁴ the county clerk is required by law to post copies of the certified results of the county canvass and to make copies of the canvass available to the public.²⁴⁴⁵

Recommendation: Wyoming requires three of the best practices, although its publication requirements are not particularly transparent, and does not use a tally server, making a fourth (memory card reconciliation) unnecessary; therefore, Wyoming's ballot reconciliation procedures are good. The state's procedures for ballot and vote reconciliation at the precinct and county level are strong, although we would recommend that Wyoming explicitly require election officials to reconcile precinct totals with county totals. The state's procedures for making results public at the county level are also strong, but increased transparency of the tabulation process at the precinct level would be an improvement.

CONCLUSION

For the past few years, Common Cause and Verified Voting have worked closely with election officials across the country to improve their voting system procedures, and the Rutgers Law School Newark Constitutional Litigation Clinic has fought tirelessly to discontinue the use of paperless DRE voting machines in New Jersey. There is no question that, in that time, states and counties have made dramatic improvements that make it much less likely that voting system failures will disenfranchise voters. As evidenced by this report, however, there is still much work to be done.

We urge states to do what they can to improve their voting procedures in the remaining weeks before the election. In the longer term, states should enact laws that will allow election officials to adequately deal with potential voting system failures.

- For states with paperless DREs, that means discontinuing their use and replacing them as soon as possible so that every voter can either cast a voter-marked paper ballot or at least review and confirm their vote on a contemporaneous paper record independent of a voting machine's software. If states continue to use DREs (with or without voter verifiable paper audit trails), it means mandating that emergency paper ballots be available in all polling places in the event that machines fail or an inadequate supply of machines causes long lines, and distributing them if *any* voting machines fail. For states that already use paper ballots and/or voter verifiable paper records at the precincts, and for domestic absentee voters, it means ensuring that military and overseas voters are also ensured the accuracy, integrity, security and privacy of casting a vote by paper ballot.
- In all jurisdictions with paper ballots or records for every vote cast, it means passing laws that require officials to audit their electronic vote tallies using those paper ballots and records (including military and overseas ballots) after every election to ensure that the machine counts are accurate. For all states, and although this is not a substitute and cannot substitute for using paper ballots and records in audits to confirm the accuracy of electronic tallies, it means strengthening voting system security and requiring ballot accounting and reconciliation procedures that will give us greater confidence that all votes have been counted and only counted once.

Every national election since 2000 has shown us the same thing: voting systems frequently fail. When they fail, votes are lost. Voters in jurisdictions without paper ballots or records for every vote cast, including military and overseas votes, do not have the same protections for the accuracy and integrity of the vote count as states that use paper ballot systems. This is not acceptable. The right to vote is the most fundamental of all of our constitutional rights. As this report makes clear, laws, practices and the technology exists that can ensure that every vote is counted as intended by the voters. Those laws, practices and technology should be implemented in every state and every county in the nation.

GLOSSARY OF TERMS

Absentee ballots: Historically, absentee ballots have been, simply, ballots cast by voters who are not able to vote in regular polling places due to travel or to some circumstance that makes it difficult for them to come to the polls. This definition is still true but incomplete. A number of states have adopted no-excuse absentee balloting, which allows any voter to vote by absentee ballot. In some states with no-excuse absentee voting, so-called “early voting” is really just the period during which voters can request and submit an absentee ballot. Because most absentee ballots are mailed to the election office, voter turnout campaigns sometimes call no-excuse absentee balloting “vote by mail,” even if the state does not have a formal vote by mail system.

Ballot accounting: The practice of tallying the number of voted, spoiled, damaged, provisional, emergency, unused and any other ballots and making sure that tally equals the number of ballots received.

Ballot marking device: a device that assists voters, through various accessible interfaces including audio guidance and tactile features, in marking a paper ballot. Ballot marking devices equipped with audio read-back of the voter’s choices from the printed or marked ballot enable visually impaired to verify that their marked ballots accurately reflect their votes.

Ballot recap form: A form which shows the number of voted, spoiled, damaged, provisional, emergency, unused, and any other ballots from a polling place.

Canvassing: Compiling the results from an election for the purpose of validating and officially certifying the results. Canvassing may include counting of ballots as well as review of the statements of the vote prepared by poll workers and of results tapes printed from DREs and optical scanners.

Central counting center: A facility where ballots and/or results from multiple polling places are tallied. In jurisdictions which do not use equipment that tallies votes at the polling places, the central counting center is the only place where votes are counted. In jurisdictions which use equipment that tallies votes at the polling places, the central counting center may be the facility where tallies from all the polling places are compiled, and where absentee or other mail-in ballots are counted.

Central tabulator: A central tabulator may be a high-speed optical scanner that is used to count large numbers of optical scan paper ballots. The term “central tabulator” is also used sometimes to describe a jurisdiction’s election management system, which aggregates vote tallies from all the polling places following the election and which is often also used to program all the jurisdiction’s polling-place machines before the election.

DRE (Direct Recording Electronic) voting machine: A direct recording electronic (DRE) voting machine directly records the voter’s selections in each race or contest. It does so via the image of a ballot that appears on an electronic display screen. Typical DRE machines have flat panel display screens with touch screen or keypad input, although other technologies have been used (including paper and push button displays). The defining

characteristic of these machines is that votes are exclusively captured and stored electronically, and that after the voter leaves, no tangible hard copy record of the voters selections remains. Some DREs, however, are equipped with printers capable of printing voter-verifiable paper records that sighted voters can review to verify that a hard copy record of their selections is accurate.

Election system: The equipment (including hardware, software and firmware) that is used by a jurisdiction to record and tabulate votes, including equipment used to program voting machines and tabulators, transmit election data and aggregate tallies from different polling places.

Electronic tally: The electronic count of votes recorded on individual voting machines, or as aggregated by precinct or polling place, or at the central or county level.

Emergency paper ballots: Paper ballots that should be on hand in polling places where DRE voting machines are the standard method of voting. Emergency paper ballots should be used when DREs are inoperable, or when long lines form at the polling place.

ETS (Electronic Transmission Service): ETS refers to a program developed by FVAP in 2007 to expand the use of e-mail and fax voting for military and overseas voters after the cancellation of the SERVE Project in 2004. Security and privacy concerns about ETS were raised by the same authors whose security analysis had resulted in the cancellation of the SERVE project. The ETS is in use today by voters from an unknown number of states, and voters using the service are asked to sign a statement waiving their right to a secret ballot.

FVAP (Federal Voting Assistance Program): The Federal Voting Assistance Program refers to a program of the U.S. Department of Defense through which the Uniformed Overseas and Citizens Absentee Voting Act (UOCAVA) is administered. The Director of FVAP administers the program on behalf of the Secretary of Defense, and provides absent U.S. military personnel and citizens worldwide with state-by-state guidelines describing voting procedures and a broad range of other non-partisan information and assistance to facilitate their participation in the democratic process.

Internet voting: Internet voting refers to voting by returning a marked ballot through the use of a web portal, but also includes e-mailing voted ballots. With the proliferation of Internet fax services, we can presume that many voted ballots returned to election officials via fax have also in fact been transmitted through the Internet. Internet voting thus can mean voting from a web portal accessed through an Internet browser on one's personal computer, or by email attachment, or electronic fax, as well as voting via a remote kiosk, or other means of remote electronic transmission.

Kiosk-based Internet voting: Kiosk-based Internet voting refers to Internet voting conducted from a voting platform provided by public or private sponsor, somewhat like a bank ATM is provided by a bank, and in contrast to voting from one's own personal computer or from a computer in an Internet cafe.

Logic and accuracy (pre-election) test: A means of determining that voting systems will function properly for the election by recording test votes on each machine, verifying that it is

possible to vote for each candidate on the ballot and that these votes are tabulated correctly all the way through to the canvass. This can be done, for example, by casting a different number of votes for each candidate or issue position in each race or contest on the ballot. Different testing requirements apply to different types of voting systems (e.g., optical scan sensor calibration, touch screen calibration, etc.). After testing, officials clear the voting machinery, set vote totals to zero and empty the physical or electronic ballot boxes, sealing the systems prior to their official use for the election.

Optical scan ballots: These are paper ballots, marked by voters, either manually with (typically) pens or through the use of a ballot marking device, which can be counted by optical scanners or by hand. Voters then carry or have carried their ballots (sleeved or otherwise protected so that others cannot see their ballot selections) to a scanner. At the scanner, the ballot is unsleeved and insert it into the scanner, which detects the voters' marks with an optical scanning element and records the votes electronically. The paper ballots are deposited into the scanner and preserved for audits and recounts. They are sometimes called "mark-sense" ballots, these are used widely for absentee voting and vote-by-mail, and also for emergency and provisional voting.

Overvote: An overvote occurs when a voter makes more selections than she is entitled to make. For example, voting for two candidates for a particular contest when the voter is entitled to vote for only one candidate in that contest is an overvote.

Poll books: Documents that contain a list of registered voters within a jurisdiction, which poll workers use to verify voters' registration status. Voters typically must enter their signatures into a poll book before they begin voting. Poll books may be in paper or electronic form.

Poll workers: People who staff and operate polling places. Duties of poll workers include setting up the polling place, including placing voting equipment in operation; checking in voters; maintaining order in the polling place, including maintaining strict custody of election materials such as ballots and equipment; recording and reporting election results; and in some cases transporting ballots and voting system media (such as memory cards) to the jurisdiction's central election office. Poll workers typically are not full-time employees of a jurisdiction's election authority, and usually serve as temporary employees or, in some cases, as volunteers. (Depending on the jurisdiction, a poll worker may be called an election judge, a clerk, an election inspector or other similar title.)

Post-election audit: A procedure that takes place after an election in which a sample of ballots from the election is recounted by hand in order to check the electronic vote tallies reported on election night. A sample of ballots is chosen by randomly choosing *audit units*. Audit units may be entire precincts, individual voting machines, or batches of absentee ballots that were subtotaled on election night. Some advocates and voting experts argue that in addition to the randomly chosen audit units, post-election audits should also include a number of audit units chosen by candidates for office. Post-election audit practices vary considerably among the states that will conduct them in 2012.

Provisional ballots: Ballots cast by voters whose eligibility to vote is disputed by an election official. Standards for counting provisional ballots vary significantly among the states.

SERVE Project: The Secure Electronic Registration and Voting Experiment (SERVE) Project was developed by FVAP as a pilot project intended to be implemented in the 2004 general election to facilitate military and overseas voting through the use of the Internet. It was targeted at all military and overseas voters, and seven states agreed to participate. It used SSL to encrypt communications between the voter's web browser and the central computer running the voting application, and required a user name and password. SERVE was cancelled after a group of leading computer scientists with particular expertise in electronic voting systems published a report in January 2004 documenting risks, vulnerabilities and security concerns raised by the project.

Spoiled ballot: A spoiled ballot will not count in an election. It is a ballot (optical scan, absentee, emergency or provisional) that a voter returns to election officials to cancel after he or she has made an error. The concepts of “cancellation” and “spoiled ballot” are often linked, in that statutory limits on the number of ballots a voter may spoil are sometimes interpreted as applying to the number of cancellations a voter can make on a DRE, and especially, a DRE equipped with a VVPAT.

SSL (Secured Sockets Layer): SSL refers to a protocol for transmitting private or security-sensitive documents via the Internet. It uses a cryptographic system that uses a public key which encrypts data for transmission and is known to everyone and a private key which decrypts data and is known only to the recipient of the message. Election jurisdictions may use this protocol in an effort to protect the confidentiality of voter information. Web sites using the SSL protocol generally start with *https://* instead of *http://*.

Summary tape: A tape that is printed by an electronic voting machine or optical scanner at the closing of the polls, which shows the number of votes cast for each candidate and for and against each measure on the ballot.

TLS (Transport Layer Security): TLS refers to another cryptographic protocol designed for the purpose of providing security and confidentiality of information transmitted over the Internet. It was based on SSL, which it is meant to replace. The objectives of the TLS protocol are to allow client/server applications to communicate in a way that prevents eavesdropping, tampering, or message forgery, and election jurisdictions may use it in an effort to protect the privacy and security of Internet-based communications with voters.

Touch screen voting machines: These are a type of Direct Recording Electronic (DRE) voting machine in which the voter makes selections on her ballot by touching specified areas on an electronic display screen.

Undervote: An undervote occurs when a voter makes fewer selections than she is entitled to make. For example, voting for only two candidates when the voter is entitled to vote for three out of seven candidates is an undervote.

VPN (Virtual Private Network): A VPN is a private network that uses a public network such as the Internet to connect remote sites or users. In the examples in this report, the VPNs were secured at both ends by digital certificates (mechanisms that enable the recipient of a message to verify that the sender is who he or she claims to be, and to respond to the

message with an encoded reply). Election jurisdictions may use VPNs in an effort to ensure the security of electronically transmitted balloting materials.

VOI (Voting Over the Internet) Pilot Project: The VOI Pilot Project was a small-scale project implemented cooperatively during the 2000 General election by FVAP and a handful of election jurisdictions: South Carolina (statewide), Okaloosa and Orange counties in Florida, Dallas County in Texas, and Weber County in Utah. The purpose of the program was to examine the feasibility of using the Internet for remote registration and voting in an effort to overcome the time and distance obstacles faced by UOCAVA voters. Eighty-four voters participated.

Vote reconciliation: The practice of comparing the number of voters who signed the polling books to the number of ballots cast.

Vote total tape: A tape that is printed by an electronic voting machine or optical scanner at the closing of the polls, which shows the number of votes cast for each candidate and for and against each measure on the ballot. It's the same thing as a summary tape.

Voter-verifiable paper audit trail (VVPAT): Voter-verifiable paper audit trails or records are the paper trails contemporaneously printed by DRE voting machines that display to the voter a hard copy record of the voter's selections. Sighted voters may use the paper records to verify that the machine correctly recorded a hard copy of his or her selections before casting the ballot. In some states, the voter-verifiable paper record is the legal ballot in a recount situation (e.g., California), taking precedence over electronic counts. Visually impaired voters currently cannot verify a hard copy of their votes when VVPATs are used. VVPAT printers do not currently include optical character recognition (OCR) readouts or other means of non-visual verification of the information printed on the VVPAT. The only way a visually impaired voter can currently verify a paper copy of the ballot through the use of technology, which allows such a voter to vote privately and independently, is by using an accessible ballot marking device to mark the ballot that also enables audio read-back of the voter's choices from the printed or marked ballot.

Voting machines: Devices that voters use to cast their votes and that tabulate the number of votes cast for candidates and for and against the measures on the ballot

Web portal: In the context of elections, web portal refers to a gateway available on an election division's webpage that enables voters to have access to services such as obtaining or downloading a blank ballot application or a blank ballot, and in some cases marking and returning that ballot. To the extent that such portals are used, they should at a minimum include requirements for users to have authorized access to the portal in the form of login credentials, passwords or other proprietary access codes in order to use the portal.

Zero tape: A tape that is printed by an electronic voting machine or electronic ballot tabulator before the machine or tabulator is to begin accepting ballots. The zero tape verifies that zero votes have been tallied by the machine before the election begins.

ENDNOTES

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- ² See, e.g., Cameron W. Barr, *Md. Election Problems Fuel Push for Paper Records*, WASH. POST, Sept. 17, 2006, at A4; Michael Scherer, *Electronic Voting Machine Problems in Myrtle Beach*, TIME, SWAMPLAND BLOG, (Jan. 19, 2008), http://swampland.time.com/2008/01/19/electronic_voting_machine_prob/.
- ³ See, e.g., Brian C. Mooney, *Voting Errors Tallied Nationwide*, BOS. GLOBE, Dec. 1, 2004; Mary Pat Flaherty, *Ohio Voting Machines Contained Programming Error That Dropped Votes*, WASH. POST, Aug. 23, 2008. See also Josh Sweigart, *Ohio Officials Prepare for Voting-Machine Breakdowns*, HAMILTON JOURNAL-NEWS, Aug. 28, 2008.
- ⁴ See, e.g., John Archibald & Brett J. Blackenridge, *Early Printout Was Only Source of Wrong Tally*, BIRMINGHAM NEWS, Nov. 10, 2002; Nedra Linsey, *McComish's District 20 2nd-place Finish Confirmed*, ARIZ. REPUBLIC, Sept. 24, 2004; Ben Cunningham, *Malfunction Delays Hasting Results*, GRAND RAPIDS PRESS, May 4, 2006.
- ⁵ See, e.g., *More than 4,500 North Carolina Votes Lost Because of Mistake in Voting Machine Capacity*, USA TODAY, Nov. 4, 2004; Tim O'Meilia, *State Faults Elections Office for Lost Votes*, PALM BEACH POST, July 2, 2008.
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- ⁷ Mark Halvorson & Sarah Martyn Crowell, *Eyes on the Vote Count: Non-partisan Observer Reports of Minnesota's 2008 Post-Election Audit and Recount*, Citizens for Election Integrity Minnesota, May 26, 2009, *available at* http://www.ceimn.org/files/ceimn.report_color.pdf.
- ⁸ Domenico Montanaro, *SC Voting Problems*, FIRST READ, Jan. 19, 2008, <http://firstread.msnbc.msn.com/archive/2008/01/19/592019.aspx>.
- ⁹ Paul J. Nyden, *Voting Machine Complaints Continue*, CHARLESTON GAZETTE-MAIL, Oct. 27, 2008, *available at* <http://www.votersunite.org/article.asp?id=8062>.
- ¹⁰ *Id.*
- ¹¹ Gregory Kotre, *Butler County Missing 105 Votes*, CINCINNATI ENQUIRER, Apr. 4, 2008, *available at* <http://www.votersunite.org/article.asp?id=7628>.
- ¹² Lauren Pack, *County Settles Voting Machine Lawsuit*, MIDDLETOWN J., Sept. 29, 2011, <http://www.middletownjournal.com/news/election/county-settles-voting-machine-lawsuit-1261628.html>.
- ¹³ *Id.*
- ¹⁴ *Id.*
- ¹⁵ Kim Zetter, *Premier/Diebold Tabulation Software Drops More Votes This Time in Ohio*, WIRED, Dec. 13, 2008, *available at* <http://www.votersunite.org/article.asp?id=8265>.
- ¹⁶ *Id.*
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- ¹⁹ Emilie Rusch, *Scanner Glitch Blamed for Election Miscounts*, RAPID CITY J., June 3, 2009, http://rapidcityjournal.com/news/local/scanner-glitch-blamed-for-election-miscounts/article_02049da8-257a-51d4-a6c3-295fa0ec0da6.html.
- ²⁰ *Id.*
- ²¹ *Id.*
- ²² Rodger Whitney, *Voting Machine Error in Craven County*, EXAMINER.COM (Oct. 25, 2010), <http://www.examiner.com/craven-county-elections-2010-in-raleigh/voting-machine-error-craven-county>
- ²³ *Computer Glitch Causes Problems for Voters in Utah County*, KSL.COM, Nov. 2, 2010, <http://www.ksl.com/?nid=148&sid=13117151>.
- ²⁴ *Id.*
- ²⁵ Brief of Appellants, *Gusciora v. Christie* No. A-005608-10T3 (N.J. Super. Ct. App. Div., Dec. 5, 2011).
- ²⁶ Jaikumar Vijayan, *E-voting System Awards Election to Wrong Candidates in Florida Village*, COMPUTERWORLD, (Apr. 4, 2012), http://www.computerworld.com.au/article/420523/e-voting-system_awards_election_wrong_candidates_florida_village/?fp=4&fpid=18

²⁷ Ronald Rivest & John P. Wack, *On the Notion of "Software Independence" in Voting Systems* (Draft, July 28, 2006), available at <http://vote.nist.gov/SI-in-voting.pdf>.

²⁸ The 35 states are AL, AK, AZ, CA, CT, DC, FL, HI, ID, IA, IL, MA, ME, MI, MO, MN, MT, NC, ND, NE, NH, NM, NV, NY, OH, OK, OR, RI, SD, UT, VT, WA, WV, WI and WY (but see footnotes to charts regarding MO, WI and WY).

²⁹ The Brennan Ctr. Task Force on Voting Sys. Sec., Brennan Ctr. For Justice at NYU School of Law, *THE MACHINERY OF DEMOCRACY: PROTECTING ELECTIONS IN AN ELECTRONIC WORLD* (Lawrence Norden ed., 2006) [hereinafter *THE MACHINERY OF DEMOCRACY: PROTECTING ELECTIONS IN AN ELECTRONIC WORLD*], available at http://www.brennancenter.org/dynamic/subpages/download_file_39288.pdf.

³⁰ Keesha Gaskins and Sundeep Iyer, *THE CHALLENGE OF OBTAINING VOTER IDENTIFICATION*; available at http://www.brennancenter.org/content/resource/the_challenge_of_obtaining_voter_identification/; Myrna Perez, *VOTER PURGES* (Brennan Center for Justice ed., 2008), available at http://www.brennancenter.org/content/resource/voter_purges; Lawrence Norden *et al.*, *Better Ballots* (Brennan Center for Justice ed., 2008), available at http://www.brennancenter.org/content/resource/better_ballots/; *THE MACHINERY OF DEMOCRACY: PROTECTING ELECTIONS IN AN ELECTRONIC WORLD*, *supra* note 29; Lawrence Norden *et al.*, *THE MACHINERY OF DEMOCRACY: VOTING SYSTEM SECURITY, ACCESSIBILITY, USABILITY, AND COST* (Brennan Center for Justice ed., 2006), available at http://www.brennancenter.org/content/section/category/voting_technology/

³¹ Douglas W. Jones, Dep't of Computer Sci., Univ. of Iowa, *Voting and Elections*, <http://www.cs.uiowa.edu/~jones/voting/> (last visited Oct. 15, 2008); John Washburn, *Guidelines for Creating a Deck of Test Ballots* (200), available at <http://www.washburnresearch.org/archive/TestingGuidelines/GuidelinesForCreatingTestBallots.pdf>.

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³³ Help America Vote Act of 2002, 42 USC §§ 15301 - 15545.

³⁴ *Brief of Appellants, Gusciora v. Christie*, *supra* note 25.

³⁵ *Id.*

³⁶ Lynn Bonner, *Two Weeks Later, No Final Count in N.C. Race*, Nov. 16, 2004, NEWS AND OBSERVER, available at <http://www.verifiedvotingfoundation.org/article.php?id=5289>.

³⁷ *Verified Voting Verifier, North Carolina*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?&ec=all&year=2012&state=North%20Carolina> (last visited June 28, 2012).

³⁸ See Nikita Stewart & Elissa Silverman, *D.C. Election Glitch Blamed On Equipment*, WASH. POST, Sept. 11, 2008, at A1.

³⁹ Technical Guidelines Dev. Comm., U.S. Election Assistance Comm'n, *TGDC Recommended Guidelines*, pt. 1, ch. 2, § 7, available at http://www.eac.gov/vvsg/part_1_equipment_requirements/chapter_2_conformance_clause.aspx.

⁴⁰ While no voting system is perfect, the authors believe that a paper optical scan ballot system, used with an accessible ballot-marking system, offers significant advantages over DRE systems (with or without voter-verified paper audit trail printers), including reliability, auditability and ease of use for voters and poll workers alike, and that these systems should replace DREs. All three organizations agree that if DRE systems are in use, they should not be used without (1) a voter-verifiable paper audit trail printer, (2) guidance to help voters check the paper records for accuracy when voting and (3) sufficient emergency paper ballots on hand in case of machine malfunctions.

⁴¹ See, e.g., AN ANALYSIS OF THE NUMBER OF VOTERS PER VOTING MACHINE, A REPORT FOR THE BOARD OF ELECTIONS IN THE CITY OF NEW YORK at 9, (2006), http://vote.nyc.ny.us/pdf/documents/boe/rfi/2009/05_Header/NYC%20BOE%20Voters%20Per%20Machine%20Report%20v-34.2%20Final.pdf.

⁴² The 16 states are: AR, CO, DE, GA, IN, KY, KS, LA, MD, MS, NJ, PA, SC, TN, TX and VA.

⁴³ See ARK. CODE ANN. § 7-5-504(8), 532(c)(1) (West, Westlaw through 2011 Leg. sess.); *Verified Voting Verifier*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?&ec=all&year=2010&state=Arkansas> (last visited Jan. 20, 2012).

⁴⁴ See *id.*

⁴⁵ ARK. CODE ANN. § 7-5-532(c)(2) (West, Westlaw through 2011 Leg. sess.).

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- ⁴⁶ COLO. REV. STAT. ANN. §§ 1-5-802(1); 8 COLO. CODE REGS. §§ 1505-1:45.5.2.9.3(a) to :45.5.2.9.8 (West, Westlaw through 2011).
- ⁴⁷ *Verified Voting Verifier*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=all&year=2010&state=Colorado> (last visited Jan. 21, 2012); *Arapahoe County Election Day FAQ*, ARAPAHOE CNTY. COLO. ELECTIONS, <http://www.arapahoevotes.com/voter-information/frequently-asked-questions/election-day-faq/#6> (last visited Jan. 21, 2012).
- ⁴⁸ COLO. REV. STAT. ANN. § 1-5-623(1)(b)(I), -801(1) (West, Westlaw through 2011).
- ⁴⁹ FLA. STAT. ANN. § 101.56075(1) (West, Westlaw through 2011 Legis. sess.).
- ⁵⁰ *Id.* at subpara. (3).
- ⁵¹ See Fla. Div. of Elections, *2012 Voting Systems*, available at http://election.dos.state.fl.us/voting-systems/pdf/VS_Web_Display_01-13-12.pdf (last visited Jan. 25, 2012).
- ⁵² MD. CODE ANN., ELEC. LAW, § 9-102(d)(1)(vii) (LexisNexis 2011)
- ⁵³ RTI INT'L, MARYLAND VOTING SYSTEMS STUDY, PREPARED FOR MARYLAND DEPARTMENT OF LEGISLATIVE SERVICES (2010), available at <http://mlis.state.md.us/2010rs/misc/2010VotingSystemsStudyReport.pdf> (last visited Sept. 26, 2011).
- ⁵⁴ E-mail Interview with Ross Goldstein, Deputy State Admin'r, Md. State Bd. of Elections (Jan. 18, 2012) (on file with Verified Voting) [hereinafter *Ross Goldstein Interview*].
- ⁵⁵ 2005 NJ Sess. Law Serv. Ch. 137 (Assembly 33) (West).
- ⁵⁶ 2007 NJ Sess. Law Serv. Ch. 301 (Senate 2949) (West) and 2008 NJ Sess. Law Serv. Ch. 18 (Assembly 2229) (West).
- ⁵⁷ N.J. STAT. ANN. § 19:53A-3(i)(2) (West 2011)
- ⁵⁸ See *Brief of Appellants, Gusciora v. Christie*, *supra* note 25.
- ⁵⁹ Telephone Interview with Robert Giles, Director, Div. of Elections, Sec'y of State (July 3, 2012) (on file with Verified Voting) [hereinafter *Robert Giles Interview*].
- ⁶⁰ TENN. CODE ANN. § 2-20-101 (West, WestLaw through 2011 Legis. Sess.).
- ⁶¹ TENN S.B. 1552 (TN 2011)
- ⁶² TENN S.B. 1805 (TN 2011)
- ⁶³ The 23 states are: AR, CO, DE, GA, IL, IN, KY, KS, LA, MD, MO, MS, NC, NJ, NV, OH, PA, SC, TN, TX, UT, VA and WV.
- ⁶⁴ Steve Lash, *Mechanical Problems Cause Voting Delays in Suburban Maryland*, DAILY REC. (Nov. 4, 2008), available at <http://www.votersunite.org/article.asp?id=8136>
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- ⁷⁸ *Election Board Says Paper Ballot Voting Was Accurate*, VENANGO COUNTY DAILY NEWS, Nov. 16, 2011, <http://www.venangocountydailynews.com/news/viewStory.php?storyID=4599>.
- ⁷⁹ *Verified Voting Verifier, Arkansas*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Arkansas&year=2010> (last visited May 8, 2012).

- ⁸⁰ ARK. CODE ANN. § 7-5-513 (West, Westlaw through 2011 Leg. sess.).
- ⁸¹ Telephone Interview with Vickie Bishop, Cnty. Clerk (June 28, 2012) (on file with Verified Voting) [hereinafter *Vickie Bishop Interview*].
- ⁸² Telephone Interview with Alice Lowery, Deputy Clerk, Union Cnty. (July 3, 2012) (on file with Verified Voting) [hereinafter *Alice Lowery Interview*].
- ⁸³ *Id.*; *Vickie Bishop Interview*, *supra* note 81.
- ⁸⁴ *Alice Lowery Interview*, *supra* note 82.
- ⁸⁵ *Vickie Bishop Interview*, *supra* note 81.
- ⁸⁶ *Verified Voting Verifier, California*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=California&year=2010> (last visited May 8, 2012).
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- ⁸⁸ E-mail Interview with Narda Barrientos, Elections Supervisor, San Mateo Cnty. (May 22, 2012) (on file with Verified Voting) [hereinafter *Narda Barrientos Interview*]; Telephone Interview with Neal Kelley, Registrar of Voters, Orange Cnty. (May 3, 2012) (on file with Verified Voting) [hereinafter *Neal Kelley Interview*]; Telephone Interview and E-mail Follow-up Interview with Carolyn Crnich, with Clerk/Recorder/Registrar of Voters, Humboldt Cnty. (May 4, 5, 2012) (on file with Verified Voting) [hereinafter *Carolyn Crnich Interview*].
- ⁸⁹ *Neal Kelley Interview*, *supra* note 88.
- ⁹⁰ See E-mail Interview with Philly Crosby, Asst. Dep’y Sec’y of State, Office of Legislative and Constituent Affairs, Cal. Sec’y of State’s Office (Dec. 22, 2011) (on file with Verified Voting) [hereinafter *Philly Crosby Interview*]; E-mail Interview with Office of Legislative and Constituent Affairs, Cal. Sec’y of State’s Office (July 12, 2012) (on file with Verified Voting) [hereinafter *Follow-up Interview with OLC*]; *Narda Barrientos Interview*, *supra* note 88.
- ⁹¹ CAL. ELEC. CODE § 14300(a) (West, Westlaw through 2011 Leg. Sess.).
- ⁹² CAL. ELEC. CODE § 14300(b) (West, Westlaw through 2011 Leg. Sess.).
- ⁹³ CAL. ELEC. CODE § 14300(c) (West, Westlaw through 2011 Leg. Sess.); *Philly Crosby Interview*, *supra* note 90.
- ⁹⁴ CAL. ELEC. CODE § 14300(a)(1) (West, Westlaw through 2011 Leg. Sess.); *Philly Crosby Interview*, *supra* note 90.
- ⁹⁵ *Neal Kelley Interview*, *supra* note 88.
- ⁹⁶ *Philly Crosby Interview*, *supra* note 90; CAL. ELEC. CODE § 14299 (West, Westlaw through 2011 Leg. Sess.).
- ⁹⁷ Cnty. Clerk/Registrar of Voters Memorandum 10302, Cal. Sec’y of State (Oct. 22, 2010), <http://www.sos.ca.gov/elections/ccrov/pdf/2010/october/10302jl.pdf>; *Philly Crosby Interview*, *supra* note 90.
- ⁹⁸ *Narda Barrientos Interview*, *supra* note 88.
- ⁹⁹ See *Philly Crosby Interview*, *supra* note 90.
- ¹⁰⁰ CAL. ELEC. CODE § 14300(c) (West, Westlaw through 2011 Leg. Sess.).
- ¹⁰¹ Providing voters with an option to vote on paper ballots in the event of long lines makes sense: It is better to have voters vote on paper ballots than not vote at all. But giving the option to voters under *any* circumstances creates its own set of problems. First of all, election officials are forced to store and account for an extra set of votes; absent long lines, it is not clear that the benefit of giving voters this choice outweighs the potential logistical challenges associated with this extra option. Second, jurisdictions that offer voters the “paper or plastic” option generally don’t have precinct count optical machines in the polling place that will let voters know if they made an error (for instance, if the machine will read a stray mark as a second vote in a particular contest, thereby nullifying the voter’s vote). This increases the risk that voters using paper ballots will have their intended choices accurately recorded. Again, absent long lines, which could keep voters from voting at all, it is unclear that providing voters with the option of using paper ballots makes sense.
- ¹⁰² CAL. ELEC. CODE § 14300(c) (West, Westlaw through 2011 Leg. Sess.).
- ¹⁰³ *Verified Voting Verifier, Colorado*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Colorado&year=2010> (last visited May 8, 2012).
- ¹⁰⁴ 8 COLO. CODE REGS. § 1505-1(43.2.8(a)(2)) (West, Westlaw through Dec. 10, 2011).
- ¹⁰⁵ Telephone Interview with Patty Berger, Cnty. Clerk, Lake Cnty. (June 13, 2012) (on file with Verified Voting) [hereinafter *Patty Berger Interview*]; Telephone Interview with Diane Folowell, Deputy Clerk, Gunnison Cnty. (June 13, 2012) (on file with Verified Voting) [hereinafter *Diane Folowell Interview*]; Telephone Interview

with Beth Cumming, Cnty. Clerk, Phillips Cnty. (June 13, 2012) (on file with Verified Voting) [hereinafter *Beth Cumming Interview*].

¹⁰⁶ *Patty Berger Interview* and *Diane Folowell Interview*, *supra* note 105.

¹⁰⁷ 8 COLO. CODE REGS. § 1505-1(43.2.8(a)(1)) (West, Westlaw through Dec. 10, 2011).

¹⁰⁸ 8 COLO. CODE REGS. § 1505-1(43.2, .3) (West, Westlaw through Dec. 10, 2011).

¹⁰⁹ COLO. REV. STAT. ANN. § 1-5-411 (West, Westlaw through Dec. 10, 2011).

¹¹⁰ *Patty Berger Interview*, *Diane Folowell Interview*, and *Beth Cumming Interview*, *supra* note 105.

¹¹¹ *Beth Cumming Interview*, *supra* note 105.

¹¹² 8 COLO. CODE REGS. § 1505-1(43.8.8.2) (West, Westlaw through Dec. 10, 2011).

¹¹³ *Beth Cumming Interview*, *supra* note 105.

¹¹⁴ *Id.*

¹¹⁵ *Verified Voting Verifier, Delaware*, VERIFIEDVOTING.ORG,

<http://www.verifiedvoting.org/verifier/map.php?&ec=all&year=2010&state=Delaware> (last visited May 8, 2012).

¹¹⁶ DEL. CODE ANN. tit. 15, § 5010 (West 2011).

¹¹⁷ *Id.*

¹¹⁸ Elaine Manlove, Del. State Elections Comm'r (Dec. 9, 2011) (on file with Verified Voting) [hereinafter *Elaine Manlove Interview*].

¹¹⁹ Telephone Interview with Kenneth McDowell, Dir., Sussex Cnty. Bd. of Elections (Mar. 6, 2012) (on file with Verified Voting) [hereinafter *Kenneth McDowell Interview*]; Telephone Interview with Joyce Wright, Dir., Kent Cnty. Bd. of Elections, and Gary Hilderbrand, Head of Info. Tech., Kent Cnty. (Mar. 7, 2012) (on file with Verified Voting) [hereinafter *Joyce Wright and Gary Hilderbrand Interview*]; Telephone Interview with Howard Sholl, Deputy Dir. of Elections, New Castle Cnty. (Mar. 7, 2012) [hereinafter *Howard Sholl Interview*].

¹²⁰ *Joyce Wright and Gary Hilderbrand Interview*, *id.*

¹²¹ *Elaine Manlove Interview*, *supra* note 118.

¹²² *Kenneth McDowell Interview*, *Joyce Wright and Gary Hilderbrand Interview*, and *Howard Sholl Interview*, *supra* note 119.

¹²³ *Howard Sholl Interview*, *supra* note 119.

¹²⁴ *Verified Voting Verifier, Georgia*, VERIFIEDVOTING.ORG,

<http://www.verifiedvoting.org/verifier/map.php?&ec=all&year=2010&state=Georgia> (last visited May 8, 2012).

¹²⁵ GA. COMP. R. & REGS. 183-1-12-.02 (4)(k) (West, Westlaw through 2010).

¹²⁶ Telephone Interview with Judge Jeff Jones, Pulaski Cnty. Bd. of Registrars (Feb. 7 and Mar. 19, 2012) (on file with Verified Voting) [hereinafter *Jeff Jones Interview*]; Telephone Interview with Sherrail Jarrett, Registrar/Supervisor, Harris Cnty. Bd. of Elections and Voter Registration (Feb. 9, 2012) (on file with Verified Voting) [hereinafter *Sherrail Jarrett Interview*]; Telephone Interview with Samuel Westmoreland, Superintendent, Fulton Cnty. (Feb. 8, 2012) (on file with Verified Voting) [hereinafter *Samuel Westmoreland Interview*].

¹²⁷ *Jeff Jones Interview*, *id.*

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ *Sherrail Jarrett Interview*, *supra* note 126.

¹³¹ *Samuel Westmoreland Interview*, *supra* note 126.

¹³² *Id.*

¹³³ *Id.*

¹³⁴ GA. CODE ANN. § 21-2-326(b), 418(h) (West, Westlaw through 2011 Legis. sess.).

¹³⁵ GA. CODE ANN. § 21-2-281, 334 (West, Westlaw through 2011 Legis. sess.).

¹³⁶ GA. CODE ANN. § 21-2-326(b) (West, Westlaw through 2011 Legis. sess.).

¹³⁷ GA. COMP. R. & REGS. 183-1-12-.06(3) (West, Westlaw through Nov. 2010).

¹³⁸ GA. CODE ANN. § 21-2-418(h) (West, Westlaw through 2011 Legis. sess.).

¹³⁹ GA. CODE ANN. § 21-2-326(b) (West, Westlaw through 2011 Legis. sess.).

¹⁴⁰ GA. CODE ANN. § 21-2-334 (West, Westlaw through 2011 Legis. sess.).

¹⁴¹ GA. CODE ANN. § 21-2-418(h) (West, Westlaw through 2011 Legis. sess.).

¹⁴² *Sherrail Jarrett Interview*, *supra* note 126.

¹⁴³ *Samuel Westmoreland Interview*, *supra* note 126.

¹⁴⁴ Email interview with Rupert T Borgsmiller, Executive Dir., Ill. State Bd. of Elections (Feb. 1, 2012) (on file with Verified Voting) [hereinafter *Rupert Borgsmiller Interview*]; *see also Verified Voting Verifier, Illinois*, VERIFIEDVOTING.ORG,

<http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Illinois&year=2010> (last visited May 8, 2012).

¹⁴⁵ 10 ILL. COMP. STAT. 5/24-11 (LexisNexis current through Pub. Acts 97-619 of the 2011 Legis. sess.).

¹⁴⁶ *Rupert Borgsmiller Interview*, *supra* note 144.

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¹⁴⁸ *Id.*

¹⁴⁹ *Rupert Borgsmiller Interview*, *supra* note 144.

¹⁵⁰ Telephone Interview with Jill Wagner, Cnty. Clerk, Morgan Cnty. (July 3, 2012) (on file with Verified Voting) [hereinafter *Jill Wagner Interview*].

¹⁵¹ *Voting Systems by County*, ILL. ST. BOARD ELECTIONS, <http://www.elections.il.gov/votinginformation/votingequip.aspx> (last visited Jan. 28, 2012).

¹⁵² *Rupert Borgsmiller Interview*, *supra* note 144.

¹⁵³ 10 ILL. COMP. STAT. 5/24-11 (LexisNexis current through Pub. Acts 97-619 of the 2011 Legis. sess.).

¹⁵⁴ *Id.*

¹⁵⁵ *Rupert Borgsmiller Interview*, *supra* note 144.

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

¹⁵⁸ *Id.*

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ 10 ILL. COMP. STAT. 5/24-11 (LexisNexis current through Pub. Acts 97-619 of the 2011 Legis. sess.).

¹⁶⁴ *Id.*

¹⁶⁵ *Verified Voting Verifier, Indiana*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Indiana&year=2010> (last visited May 8, 2012).

¹⁶⁶ IND. CODE ANN. § 3-11-14-19 (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.).

¹⁶⁷ IND. CODE ANN. § 3-11-3-35 (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.).

¹⁶⁸ *Id.*; see also E-mail conversation with Vance Poole, Election Outreach Manager, Ind. Sec’y of State’s Office (Jan. 25, 2012) (on file with Verified Voting) [hereinafter *Vance Pool Interview*].

¹⁶⁹ *Id.*

¹⁷⁰ IND. CODE ANN. §§ 3-11-3-11(3)(B), 3-10-1-12(b) (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.); see also *Vance Pool Interview*, *supra* note 168.

¹⁷¹ IND. CODE ANN. § 3-11-3-28 (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.).

¹⁷² Telephone Interview with Jennifer Baxter, Deputy over Elections, Marion Cnty. (May 22, 2012) (on file with Verified Voting) [hereinafter *Jennifer Baxter Interview*]; Telephone Interview with Janet Hasser, Cnty. Clerk, Benton Cnty. (May 4, 2012) (on file with Verified Voting) [hereinafter *Janet Hasser Interview*]; Telephone Interview with Kathy Richardson, Election Administrator, Tipton Cnty. (May 2012) (on file with Verified Voting) [hereinafter *Kathy Richardson Interview*].

¹⁷³ *Janet Hasser Interview*, *id.*

¹⁷⁴ *Kathy Richardson Interview*, *supra* note 172.

¹⁷⁵ IND. CODE ANN. § 3-11-3-3 (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.).

¹⁷⁶ IND. CODE ANN. § 3-11-14-19 (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.); Telephone Interview with Brad King, Dir. of Elections, Sec’y of State (July 11, 2012) (on file with Verified Voting).

¹⁷⁷ *Verified Voting Verifier, Kansas*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Kansas&year=2010> (last visited May 8, 2012).

¹⁷⁸ KAN. STAT. ANN. §§ 25-4408, 4606 (2011).

¹⁷⁹ Telephone Interview with Krysta Torsen, Cnty. Clerk, Lane Cnty. (June 12, 2012) (on file with Verified Voting) [hereinafter *Krysta Torsen Interview*].

¹⁸⁰ Telephone Interview with Marcia Ashmore, Cnty. Clerk, Hamilton Cnty. (June 12, 2012) (on file with Verified Voting) [hereinafter *Marcia Ashmore Interview*].

¹⁸¹ Telephone Interview with Jenna Fager, Deputy Election Officer, Reno Cnty. (June 12, 2012) (on file with Verified Voting) [hereinafter *Jenna Fager Interview*].

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- ¹⁸² KAN. STAT. ANN. § 25-604(c) (2011).
- ¹⁸³ E-mail Interview with Brad Bryant, Elections Dir., Kan. Sec’y of State (Dec. 1, 2011) (on file with Verified Voting) [hereinafter *Brad Bryant Interview*].
- ¹⁸⁴ *Krysta Torsen Interview*, *supra* note 179; *Marcia Ashmore Interview*, *supra* note 180; *Jenna Fager Interview*, *supra* note 181.
- ¹⁸⁵ *Jenna Fager Interview*, *supra* note 181.
- ¹⁸⁶ *Brad Bryant interview*, *supra* note 183.
- ¹⁸⁷ *Id.*
- ¹⁸⁸ *Krysta Torsen Interview*, *supra* note 179; *Marcia Ashmore Interview*, *supra* note 180; *Jenna Fager Interview*, *supra* note 181.
- ¹⁸⁹ *Jenna Fager Interview*, *supra* note 181.
- ¹⁹⁰ *Krysta Torsen Interview*, *supra* note 179.
- ¹⁹¹ KAN. STAT. ANN. § 25-604(c) (2011).
- ¹⁹² *Verified Voting Verifier, Kentucky*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Kentucky&year=2010> (last visited May 8, 2012).
- ¹⁹³ KY. REV. STAT. ANN. § 117.215(2) (2011).
- ¹⁹⁴ E-mail Interview with Maryellen Allen, Gen. Counsel, Ken. State Bd. of Elections (Dec. 12, 2011) (on file with Verified Voting) [hereinafter *Maryellen Allen Interview*].
- ¹⁹⁵ KY. REV. STAT. ANN. § 117.145(2) (2011).
- ¹⁹⁶ KY. REV. STAT. ANN. § 117.215(2) (2011); *Maryellen Allen Interview*, *supra* note 194.
- ¹⁹⁷ KY. REV. STAT. ANN. § 117.145(2) (2011).
- ¹⁹⁸ Telephone Interview with Jan Mills, Deputy Clerk, Whitley Cnty. (June 12, 2012) (on file with Verified Voting) [hereinafter *Jan Mills Interview*]; Telephone Interview with Valerie Newell, Cnty. Clerk, Webster Cnty. (June 14, 2012) (on file with Verified Voting) [hereinafter *Valerie Newell Interview*]; E-mail Interview with Tracy Merriman, Elections Dep’t Manager, Fayette Cnty. (June 14, 2012) (on file with Verified Voting) [hereinafter *Tracy Merriman Interview*].
- ¹⁹⁹ *Verified Voting Verifier, Kentucky*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?&ec=all&year=2010&state=Kentucky> (last visited June 18, 2012).
- ²⁰⁰ *Maryellen Allen Interview*, *supra* note 194.
- ²⁰¹ *Tracy Merriman Interview*, *supra* note 198.
- ²⁰² *Id.*
- ²⁰³ KY. REV. STAT. ANN. § 117.215(2) (2011).
- ²⁰⁴ *Verified Voting Verifier, Louisiana*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?&ec=all&year=2010&state=Louisiana> (last visited May 8, 2012).
- ²⁰⁵ LA. REV. STAT. ANN. § 18:1353(E) (LexisNexis current through 2011 Leg. sess.).
- ²⁰⁶ LA. REV. STAT. ANN. § 18:1363(E) (LexisNexis current through 2011 Leg. sess.).
- ²⁰⁷ LA. REV. STAT. ANN. § 18:1363(F) (LexisNexis current through 2011 Leg. sess.).
- ²⁰⁸ E-mail Interview with Angie Rogers, Commissioner of Elections, La. Sec’y of State’s Office (Dec. 13, 2011) (on file with Verified Voting) [hereinafter *Angie Rogers Interview*].
- ²⁰⁹ Telephone Interview with Alaina Rung, Director of Elections, Lafayette Parish (June 27, 2012) (on file with Verified Voting) [hereinafter *Alaina Rung Interview*]; Telephone Interview with Brenda Folse, Commissioner, St. Charles Parish (June 27, 2012) (on file with Verified Voting) [hereinafter *Brenda Folse Interview*]; Telephone Interview with Marion Hopkins, Cnty. Clerk, Madison Parish (June 29, 2012) (on file with Verified Voting) [hereinafter *Marion Hopkins Interview*].
- ²¹⁰ *Alaina Rung Interview*, *id.*
- ²¹¹ *Brenda Folse Interview*, *supra* note 209.
- ²¹² *Angie Rogers Interview*, *supra* note 208.
- ²¹³ *Marion Hopkins Interview*, *supra* note 209.
- ²¹⁴ *Brenda Folse Interview*, *supra* note 209.
- ²¹⁵ *Alaina Rung Interview*, *supra* note 209.
- ²¹⁶ *Marion Hopkins Interview*, *supra* note 209.
- ²¹⁷ *Alaina Rung Interview*, *supra* note 209.
- ²¹⁸ *Brenda Folse Interview*, *supra* note 209.

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- ²¹⁹ *Alaina Rung Interview, Brenda Folse Interview, and Marion Hopkins Interview, supra* note 209.
- ²²⁰ LA. REV. STAT. ANN. § 18:1363(F) (LexisNexis current through 2011 Leg. sess.).
- ²²¹ LA. REV. STAT. ANN. § 18:1363(G) (LexisNexis current through 2011 Leg. sess.).
- ²²² *Alaina Rung Interview, supra* note 209.
- ²²³ *Marion Hopkins Interview, supra* note 209.
- ²²⁴ *Brenda Folse Interview, supra* note 209.
- ²²⁵ *Verified Voting Verifier, Maryland*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=allall&year=2010&state=Maryland> (last visited May 8, 2012).
- ²²⁶ MD. CODE ANN., ELEC. LAW § 10-302(a) (LexisNexis 2011).
- ²²⁷ Telephone Interview with Steve Fratz, Election Director, Garrett Cnty. (June 12, 2012) (on file with Verified Voting) hereinafter *Steve Fratz Interview*; Telephone Interview with Evelyn Potter, Election Director, Cecil Cnty. (June 12, 2012) (on file with Verified Voting) hereinafter *Evelyn Potter Interview*.
- ²²⁸ *Voting System FAQ*, MD. ST. BD. ELECTIONS, http://www.elections.state.md.us/voting_system/faq.html#q8 (last visited Feb. 16, 2012).
- ²²⁹ Telephone Interview with David Gareiss, Deputy Election Director, Anne Arundel Cnty. (June 12, 2012) (on file with Verified Voting) hereinafter *David Gareiss Interview*; *Steve Fratz Interview* and *Evelyn Potter Interview, supra* note 227.
- ²³⁰ *Steve Fratz Interview and Evelyn Potter Interview, supra* note 227.
- ²³¹ *David Gareiss Interview, supra* note 229.
- ²³² *David Gareiss Interview, supra* note 229; *Steve Fratz Interview and Evelyn Potter Interview, supra* note 227; Telephone Interview with Ross Goldstein, Deputy Admin., Bd. of Elections (July 11, 2012) (on file with Verified Voting).
- ²³³ *Id.*
- ²³⁴ *Verified Voting Verifier, Mississippi*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Mississippi&year=2010> (last visited May 8, 2012).
- ²³⁵ MISS. CODE ANN. §§ 23-15-427, -473 (2011); E-mail Interview with Pamela Weaver, Elections Div. Miss. Sec’y of States Office (July 3, 2012) (on file with Verified Voting) [hereinafter *Pamela Weaver Interview*].
- ²³⁶ Telephone Interview with Miss Lofton, Lee Cnty. (June 29, 2012) (on file with Verified Voting) [hereinafter *Miss Lofton Interview*]; Telephone Interview with Miss Stanford, Circuit Clerk, Union Cnty. (June 29, 2012) (on file with Verified Voting) [hereinafter *Miss Stanford Interview*].
- ²³⁷ *Miss Stanford Interview, id.*
- ²³⁸ MISS. CODE ANN. §§ 23-15-427, -473 (2011); *Pamela Weaver Interview, supra* note 235.
- ²³⁹ MISS. CODE ANN. § 23-15-531.12 (2011).
- ²⁴⁰ *Pamela Weaver Interview, supra* note 235.
- ²⁴¹ *Miss Stanford Interview, supra* note 236.
- ²⁴² *Pamela Weaver Interview, supra* note 235.
- ²⁴³ *Miss Stanford Interview, supra* note 236.
- ²⁴⁴ MISS. SEC’Y OF STATE, MISSISSIPPI POLL MANAGER GUIDE FOR USE WITH THE TSX VOTING SYSTEM, at 23 (2010) [hereinafter *MISSISSIPPI POLL MANAGER GUIDE*], http://www.sos.ms.gov/links/elections/elections_officials_center/tab2/CountyElection%20Commissioners/Train%20the%20Trainer/Materials%20Needed/POLL%20MANAGER%20GUIDE%202010%20final.pdf.
- ²⁴⁵ *Id.*
- ²⁴⁶ *Pamela Weaver Interview, supra* note 235.
- ²⁴⁷ *Miss Stanford Interview, supra* note 236.
- ²⁴⁸ *MISSISSIPPI POLL MANAGER GUIDE, supra* note 244, at 23.
- ²⁴⁹ *Verified Voting Verifier, Nevada*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Nevada&year=2010> (last visited May, 8, 2012).
- ²⁵⁰ *Verified Voting Verifier, Nevada, available at* <http://www.verifiedvoting.org/verifier/map.php?ec=allall&year=2010&state=Nevada> (last visited Mar. 21, 2012).
- ²⁵¹ NEV. ADMIN. CODE § 293B.070 (2011).
- ²⁵² NEV. ADMIN. CODE § 293B.090 (2011).
- ²⁵³ NEV. REV. STAT. § 293B.155 (2011); NEV. ADMIN. CODE §. 293B.090 (2011).

²⁵⁴ E-mail Interview with Ryan High, Deputy Sec’y for Operations, Nev. Sec’y of State’s Office (Jan. 19, 2012) (on file with Verified Voting) [hereinafter *Ryan High Interview*].

²⁵⁵ *Id.*

²⁵⁶ *Id.*

²⁵⁷ *Id.*

²⁵⁸ NEV. REV. STAT. § 293.247(3)(c) (2011).

²⁵⁹ NEV. REV. STAT. § 293.247(3)(o) (2011).

²⁶⁰ *Id.*

²⁶¹ *Ryan High Interview*, *supra* note 254.

²⁶² E-mail Interview with Harvard "Larry" Lomax, Clark Cnty. Registrar (Apr. 4, 2012) (on file with Verified Voting) [hereinafter *Larry Lomax Interview*].

²⁶³ E-mail Interview with Dan Burk, Registrar of Voters, Washoe Cnty. (Apr. 12, 2012) (on file with Verified Voting) [hereinafter *Dan Burk Interview*].

²⁶⁴ *Id.*

²⁶⁵ Telephone Interview with Lacinda "Cindy" Elgan, Cnty. Clerk and Treasurer, Esmeralda Cnty. (Apr. 12, 2012) (on file with Verified Voting) [hereinafter *Cindy Elgan Interview*].

²⁶⁶ *Id.*

²⁶⁷ *Dan Burk Interview*, *supra* note 263.

²⁶⁸ *Cindy Elgan Interview*, *supra* note 265.

²⁶⁹ *Ryan High Interview*, *supra* note 254.

²⁷⁰ *Dan Burk Interview*, *supra* note 263.

²⁷¹ *Larry Lomax Interview*, *supra* note 262.

²⁷² *Id.*

²⁷³ *Id.*

²⁷⁴ *Cindy Elgan Interview*, *supra* note 265.

²⁷⁵ *Id.*

²⁷⁶ *Verified Voting Verifier*, New Jersey, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=all&year=2010&state=New%20Jersey> (last visited May 8, 2012).

²⁷⁷ N.J. STAT. ANN. § 19:48-7 (West 2011).

²⁷⁸ *Robert Giles Interview*, *supra* note 59.

²⁷⁹ Telephone Interview with Shirley Manahan, Deputy Registrar, Election Bd., Salem Cnty. (July 2, 2012) (on file with Verified Voting) [hereinafter *Shirley Manahan Interview*].

²⁸⁰ N.J. STAT. ANN. § 19:53B-1 (West 2011); *see also Robert Giles Interview*, *supra* note 59.

²⁸¹ *Id.*

²⁸² N.J. STAT. ANN. § 19:48-7 (West 2011).

²⁸³ STATE OF N.J., NJ DISTRICT BOARD MEMBER TRAINING MANUAL 32 (Sept. 13, 2011) [hereinafter *NJ BOARD MEMBER TRAINING MANUAL*], available at <http://nj.gov/state/elections/publications/board-member-training-manual-091311.pdf>.

²⁸⁴ *Robert Giles Interview*, *supra* note 59.

²⁸⁵ *Shirley Manahan Interview*, *supra* note 279.

²⁸⁶ N.J. STAT. ANN. §§ 19:53B-3(a) (West 2011).

²⁸⁷ N.J. STAT. ANN. § 19:53B-1 (West 2011).

²⁸⁸ *Id.*

²⁸⁹ *Robert Giles Interview*, *supra* note 59; *Shirley Manahan Interview*, *supra* note 279.

²⁹⁰ N.J. STAT. ANN. §§ 19:53B-3(a), :48-3.2 (West 2011).

²⁹¹ N.J. STAT. ANN. § 19:48-7 (West 2011).

²⁹² *NJ BOARD MEMBER TRAINING MANUAL*, *supra* note 283, at 32.

²⁹³ *Robert Giles Interview*, *supra* note 59.

²⁹⁴ *Shirley Manahan Interview*, *supra* note 279.

²⁹⁵ N.J. STAT. ANN. § 19:48-3.13 (West 2011).

²⁹⁶ *NJ BOARD MEMBER TRAINING MANUAL*, *supra* note 283, at 32.

²⁹⁷ *Robert Giles Interview*, *supra* note 59; *Shirley Manahan Interview*, *supra* note 279.

²⁹⁸ N.J. STAT. ANN. § 19:48-7 (West 2011).

²⁹⁹ *Verified Voting Verifier*, North Carolina, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=North%20Carolina&year=2010> (last

visited May 8, 2012); E-mail Interview with Don Wright, Gen. Counsel, N. Car. State Bd. of Elections (July 10, 2012) (on file with Verified Voting) [hereinafter *Don Wright Interview*].

³⁰⁰ N.C. GEN. STAT. § 163-166.1(1) (2011) and N. Car. Bd. of Elections, NC Elections Uniformity Project Report, at 14-11, (Sept. 2011), (on file with Rutgers Constitutional Litigation Clinic) [hereinafter *NC Uniformity Report*].

³⁰¹ Email Interview with Deborah Formyduval, Election Dir., Warren Cnty. (Apr. 18, 2012) (on file with Verified Voting) [hereinafter *Deborah Formyduval Interview*]; Telephone Interview with Doyle Teague, Haywood Cnty. Elections Specialist (Apr. 24, 2012) (on file with Verified Voting) [hereinafter *Doyle Teague Interview*]; Telephone Interview with Michael Perry, Dir. of Elections, Durham Cnty. (Apr. 24, 2012) (on file with Verified Voting) [hereinafter *Michael Perry Interview*].

³⁰² *Deborah Formyduval Interview*, *id.*

³⁰³ *Doyle Teague Interview*, *supra* note 301.

³⁰⁴ *Michael Perry Interview*, *supra* note 301.

³⁰⁵ *Id.*

³⁰⁶ E-mail Interview with Johnnie McLean, Deputy Dir. N.C. State Bd. of Elections (Dec. 8, 2011) (on file with Verified Voting) [hereinafter *Johnnie McLean Interview*].

³⁰⁷ 8 N.C. ADMIN. CODE 6B.0102 (2011).

³⁰⁸ *Id.*; *Don Wright Interview*, *supra* note 299.

³⁰⁹ 8 N.C. ADMIN. CODE 6B.0102 (2011).

³¹⁰ *Deborah Formyduval Interview*, *supra* note 301.

³¹¹ *Doyle Teague Interview*, *supra* note 301.

³¹² *Michael Perry Interview*, *supra* note 301.

³¹³ N.C. GEN. STAT. § 163-166.1(1) (2011); 8 N.C. ADMIN. CODE 6B.0102 (2011).

³¹⁴ *Verified Voting Verifier*, Ohio, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Ohio&year=2010> (last visited May 8, 2012).

³¹⁵ OHIO REV. CODE ANN. § 3506.05(F), (G) (West 2011).

³¹⁶ OHIO REV. CODE ANN. § 3505.17 (West 2011).

³¹⁷ Telephone Interview with Linda Stutz, Dir. of Elections, Van Wert Cnty. (Apr. 12, 2012) (on file with Verified Voting) [hereinafter *Linda Stutz Interview*]; Telephone Interview with Steve Harsman, Cnty. Bd. of Elections, Montgomery Cnty. (Apr. 12, 2012) (on file with Verified Voting) [hereinafter *Steve Harsman Interview*]; Telephone Interview with Sue Donohoe, Election Specialist, Wayne Cnty. (Apr. 12, 2012) (on file with Verified Voting) [hereinafter *Sue Donohoe Interview*].

³¹⁸ *Steve Harsman Interview*, *id.*

³¹⁹ JON HUSTED, OHIO SEC'Y OF STATE, DIRECTIVE 2012-04: OPTICAL SCAN BALLOTS FOR VOTERS IN COUNTIES USING DRE VOTING MACHINES AS THEIR ELECTION DAY VOTING SYSTEM FOR THE MARCH 6, 2012 PRIMARY ELECTION (Jan. 12, 2012), [hereinafter *OHIO 2012 CONTINGENCY PLAN DIRECTIVE*], *available at* <http://www.sos.state.oh.us/SOS/Upload/elections/directives/2012/Dir2012-04.pdf> (last visited Mar. 9, 2012).

³²⁰ *Linda Stutz Interview*, *Steve Harsman Interview* and *Sue Donohoe Interview*, *supra* note 317.

³²¹ *Id.*; E-mail Interview with Matthew Masterson, Deputy Elections Adm'r, Ohio Sec'y of State's Office (Jan. 11, 2012) (on file with Verified Voting) [hereinafter *Matthew Masterson Interview*].

³²² *Linda Stutz Interview*, *supra* note 317.

³²³ *Steve Harsman Interview*, *supra* note 317.

³²⁴ *Sue Donohoe Interview*, *supra* note 317.

³²⁵ *OHIO 2012 Contingency Plan Directive*, *supra* note 319.

³²⁶ *Verified Voting Verifier*, Pennsylvania, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Pennsylvania&year=2010> (last visited May 8, 2012).

³²⁷ 25 PA. CONS. STAT. ANN. § 3031.20(b) (West, WestLaw through 2011 Legis. Sess.)

³²⁸ *Id.*

³²⁹ Telephone Interview with Cheryl Kayrol, Cnty. Clerk, Fayette Cnty. (May 5, 2012) (on file with Verified Voting) [hereinafter *Cheryl Kayrol Interview*]; Telephone Interview with Florence Ball, Supervisor, Wyoming Cnty. (May 8, 2012) (on file with Verified Voting) [hereinafter *Florence Ball Interview*]; Telephone Interviews with Stephanie Singer, Comm'r, and Greg Irving, Adm'r, Philadelphia Bd. of Elections (June 7, 2012) (on file with Verified Voting) [hereinafter *Stephanie Singer and Greg Irving Interviews*].

- ³³⁰ *Stephanie Singer and Greg Irving Interviews*, *id.*
- ³³¹ E-mail Interview with Shauna Clemmer, Asst. Counsel, Dept. of State, Commonwealth of Pa. (Mar. 9, 2012) (on file with Verified Voting) [hereinafter *Shauna Clemmer Interview*]; PA. SEC’Y OF THE COMMONWEALTH, DIRECTIVE CONCERNING THE USE, IMPLEMENTATION AND OPERATION OF ELECTRONIC VOTING SYSTEMS BY THE COUNTY BOARDS OF ELECTIONS [hereinafter *PA 2009 DIRECTIVE*], (Apr. 28, 2009), *available at* http://www.portal.state.pa.us/portal/server.pt/document/488592/evs_directive_pdf?qid=30106499&rank=3.
- ³³² *Florence Ball Interview* and *Stephanie Singer and Greg Irving Interviews*, *supra* note 329.
- ³³³ *PA 2009 Directive* and *Shauna Clemmer Interview*, *supra* note 331.
- ³³⁴ 25 PA. CONS. STAT. ANN. § 2967 (West, WestLaw through 2011 Legis. Sess.).
- ³³⁵ *Id.*
- ³³⁶ *Shauna Clemmer Interview* and *PA 2009 Directive*, *supra* note 331.
- ³³⁷ PA. SEC’Y OF THE COMMONWEALTH, DIRECTIVE CONCERNING THE USE, IMPLEMENTATION AND OPERATION OF ELECTRONIC VOTING SYSTEMS BY THE COUNTY BOARDS OF ELECTIONS hereinafter *PA 2008 DIRECTIVE*] (emphasis in original), (Sept. 3, 2008), *available at* <http://www.voteraction.org/files/EVS%20Directive%20Final%20090308.pdf> (emphasis in original); NAACP-State Conference of Pa. v. Cortes, 591 F.Supp.2d 757 (E.D. Pa. 2008).
- ³³⁸ *Federal Judge Rules that More Emergency Paper Ballots Be Made Available When Voters Face Voting Machine Breakdowns*, VOTERACTION.ORG (Oct. 29, 2008), <http://www.voteraction.org/press-release/2008/federal-judge-rules-more-emergency-paper-ballots-be-made-available>
- ³³⁹ Memorandum from Pa. Dept. of State, Emergency Paper Ballots (Mar., 2008) (emphasis omitted) (on file with Verified Voting) (emphasis removed); *see also Shauna Clemmer Interview*, *supra* note 331.
- ³⁴⁰ *Id.*
- ³⁴¹ *PA 2009 Directive* and *Shauna Clemmer Interview*, *supra* note 331.
- ³⁴² *Id.*
- ³⁴³ *PA 2009 Directive*, *supra* note 331 (emphasis and alteration in original).
- ³⁴⁴ *Cheryl Kayrol Interview*, *supra* note 329.
- ³⁴⁵ *Stephanie Singer and Greg Irving Interviews*, *supra* note 329.
- ³⁴⁶ *Florence Ball Interview*, *supra* note 329.
- ³⁴⁷ *Verified Voting Verifier, South Carolina*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=all&year=2010&state=South%20Carolina> (last visited May 8, 2012).
- ³⁴⁸ S. C. CODE ANN. § 7-13-1870 (West, WestLaw through 2011 Legis. Sess.).
- ³⁴⁹ *Id.*
- ³⁵⁰ *Id.*
- ³⁵¹ S. C. CODE ANN. § 7-13-1870 (West, WestLaw through 2011 Legis. Sess.).
- ³⁵² S. C. CODE ANN. § 7-13-430(A) (West, WestLaw through 2011 Legis. Sess.).
- ³⁵³ S. C. CODE ANN. § 7-13-430(B) (West, WestLaw through 2011 Legis. Sess.).
- ³⁵⁴ S. C. CODE ANN. § 7-13-430(C) (West, WestLaw through 2011 Legis. Sess.).
- ³⁵⁵ S. C. CODE ANN. § 7-13-430(C) (West, WestLaw through 2011 Legis. Sess.).
- ³⁵⁶ Telephone Interview with Suffie Jennings, Registration & Elections Clerk, McCormick Cnty. (Apr. 10, 2012) (on file with Verified Voting) [hereinafter *Suffie Jennings Interview*]; Telephone Interview with Joy Brooks, Registration & Elections Dir., Oconee Cnty. (Apr. 10, 2012) (on file with Verified Voting) [hereinafter *Joy Brooks Interview*]; Telephone Interview with Joseph Debney, Exec. Dir. of the Bd. of Elections (Apr. 6, 2012) (on file with Verified Voting) [hereinafter *Joseph Debney Interview*].
- ³⁵⁷ *Joy Brooks Interview*, *supra* note 356.
- ³⁵⁸ *Joseph Debney Interview*, *supra* note 356.
- ³⁵⁹ *Suffie Jennings Interview*, *supra* note 356.
- ³⁶⁰ S. C. CODE ANN. § 7-13-1870 (West, WestLaw through 2011 Legis. Sess.).
- ³⁶¹ S. C. CODE ANN. § 7-13-430(B) (West, WestLaw through 2011 Legis. Sess.).
- ³⁶² *Id.*
- ³⁶³ S. C. CODE ANN. § 7-13-1870 (West, WestLaw through 2011 Legis. Sess.).
- ³⁶⁴ *Verified Voting Verifier, Tennessee*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Tennessee&year=2010> (last visited May 8, 2012).
- ³⁶⁵ TENN. CODE ANN. § 2-7-119(a) (West, WestLaw through 2011 Legis. Sess.).
- ³⁶⁶ TENN. COMP. R. & REGS. 1360-2-12-.09(3)b (West, WestLaw through 2011 Legis. Sess.).

³⁶⁷ E-mail Interview with Tre Hargett, Sec’y of State (June 29, 2012) (on file with Verified Voting) [hereinafter *Tre Hargett Interview*].

³⁶⁸ TENN. CODE ANN. § 2-5-209(a) (West, WestLaw through 2011 Legis. Sess.).

³⁶⁹ TENN. CODE ANN. § 2-7-119(b) (West, WestLaw through 2011 Legis. Sess.).

³⁷⁰ TENN. CODE ANN. § 2-7-108(a) (West, WestLaw through 2011 Legis. Sess.).

³⁷¹ *Id.*

³⁷² *Tre Hargett Interview*, *supra* note 367.

³⁷³ *Id.*

³⁷⁴ TENN. CODE ANN. § 2-7-119(b) (West, WestLaw through 2011 Legis. Sess.) (emphasis added).

³⁷⁵ *Verified Voting Verifier*, Texas, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Texas&year=2010> (last visited May 8, 2012).

³⁷⁶ TEX. SEC’Y. OF STATE, ELECTION ADVISORY NO. 10-12, at § 6(f)(i) (2010) [hereinafter *TEXAS 2010 ADVISORY*], available at <http://www.sos.state.tx.us/elections/laws/advisory2010-12.shtml>.

³⁷⁷ TEX. ELEC. CODE ANN. § 125-006 (West, WestLaw through 2011 Legis. Sess.).

³⁷⁸ *Id.*; Telephone Interview with Patricia McGowan, Cnty. Clerk, Nolan Cnty. (Apr. 5, 2012) (on file with Verified Voting) [hereinafter *Patricia McGowan Interview*]; E-mail Interview with Glenda Denton, Elections Adm’r, Rockwall Cnty. (Apr. 5, 2012) (on file with Verified Voting) [hereinafter *Glenda Denton Interview*]; Telephone Interview with Steven Vickers, Operations Manager, Tarrant Cnty. (Apr. 5, 2012) (on file with Verified Voting) [hereinafter *Steven Vickers Interview*].

³⁷⁹ *Id.*; E-mail Interview with Elizabeth Winn, Dir. of Legal Section, Tex. Sec’y of State’s Office (Jan. 18, 2012) [hereinafter *Elizabeth Winn Interview*].

³⁸⁰ *Elizabeth Winn Interview*, *id.*

³⁸¹ *Texas 2010 Advisory*, *supra* note 376.

³⁸² *Patricia McGowan Interview*, *supra* note 378.

³⁸³ *Steven Vickers Interview*, *supra* note 378.

³⁸⁴ *Id.*

³⁸⁵ *Glenda Denton Interview*, *supra* note 378.

³⁸⁶ Letter from Ann McGeehan to Election Officials (Apr. 24, 2006) available at <http://www.bradblog.com/?p=2744>

³⁸⁷ *Texas 2010 Advisory*, *supra* note 376.

³⁸⁸ *Patricia McGowan Interview*, *supra* note 378.

³⁸⁹ *Glenda Denton Interview*, *supra* note 378.

³⁹⁰ TEX. ELEC. CODE ANN. § 125-006(a) (West, WestLaw through 2011 Legis. Sess.).

³⁹¹ TEX. ELEC. CODE ANN. § 125-006(c) (West, WestLaw through 2011 Legis. Sess.); *Patricia McGowan Interview*, *Glenda Denton Interview*, and *Steven Vickers Interview*, *supra* note 378.

³⁹² TEX. ELEC. CODE ANN. § 125-006(c)(2), (3) (West, WestLaw through 2011 Legis. Sess.).

³⁹³ *Verified Voting Verifier*, Utah, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?&ec=all&year=2010&state=Utah> (last visited May 8, 2012).

³⁹⁴ UTAH CODE ANN. § 20A-5-406(2)(b)(iv) (West, WestLaw through 2011 Legis. Sess.).

³⁹⁵ Telephone Interview with Amber Miller, Election Technician, Davis Cnty. (May 9, 2012) (on file with Verified Voting) [hereinafter *Amber Miller Interview*]; Telephone Interview with Norma Brunson, Cnty. Clerk, Millard Cnty. (May 15, 2012) (on file with Verified Voting) [hereinafter *Norma Brunson Interview*]; E-mail Interview with Marla Young, Cnty. Clerk, Box Elder (May 2, 2012) (on file with Verified Voting) [hereinafter *Marla Young Interview*].

³⁹⁶ *Norma Brunson Interview*, *id.*

³⁹⁷ *Marla Young Interview*, *supra* note 395.

³⁹⁸ *Amber Miller Interview*, *Norma Brunson Interview*, and *Marla Young Interview*, *supra* note 395.

³⁹⁹ UTAH CODE ANN. § 20A-5-406(2)(c) (West, WestLaw through 2011 Legis. Sess.) (emphasis added).

⁴⁰⁰ *Amber Miller Interview*, *Norma Brunson Interview*, and *Marla Young Interview*, *supra* note 395.

⁴⁰¹ *Norma Brunson Interview*, *supra* note 395.

⁴⁰² *Amber Miller Interview*, *Norma Brunson Interview*, and *Marla Young Interview*, *supra* note 395.

⁴⁰³ *Norma Brunson Interview*, *supra* note 395.

⁴⁰⁴ *Amber Miller Interview*, *supra* note 395.

⁴⁰⁵ *Verified Voting Verifier, Virginia*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=Virginia&year=2010> (last visited May 8, 2012).

⁴⁰⁶ VA. CODE ANN. § 24.2-642(A) (West, WestLaw through 2011 Legis. Sess.).

⁴⁰⁷ *Id.*

⁴⁰⁸ VA. CODE ANN. § 24.2-642(A) (West, WestLaw through 2011 Legis. Sess.).

⁴⁰⁹ E-mail Interview with Susan Lee, Manager, Election Uniformity, VA State Board of Elections (Jan. 13, 2012) (on file with Verified Voting) [hereinafter *Susan Lee Interview*].

⁴¹⁰ VA. CODE ANN. § 24.2-642(C) (West, WestLaw through 2011 Legis. Sess.).

⁴¹¹ VA. CODE ANN. § 24.2-642(C) (West, WestLaw through 2011 Legis. Sess.).

⁴¹² *Susan Lee Interview*, *supra* note 409.

⁴¹³ Telephone Interview with Diana Dutton, Elections Manager, Prince William Cnty. (May 9, 2012) (on file with Verified Voting) [hereinafter *Diana Dutton Interview*].

⁴¹⁴ *See id.*, confirming currency of Officer of Elections Training Standards, *available at* www.sbe.virginia.gov/.../2010-002_Officer_of_Election_Training_Stards.Doc.

⁴¹⁵ VA. CODE ANN. § 24.2-642(A) (West, WestLaw through 2011 Legis. Sess.).

⁴¹⁶ *Id.*

⁴¹⁷ E-mail Interview with Bobbi Morgan, General Registrar, Gloucester Cnty. (Apr. 17, 2012) (on file with Verified Voting) [hereinafter *Bobbi Morgan Interview*].

⁴¹⁸ VA. CODE ANN. § 24.2-642(A) (West, WestLaw through 2011 Legis. Sess.).

⁴¹⁹ VA. CODE ANN. § 24.2-642(C) (West, WestLaw through 2011 Legis. Sess.).

⁴²⁰ *Id.*

⁴²¹ *Id.*

⁴²² *Diana Dutton Interview*, *supra* note 413; *Bobbi Morgan Interview*, *supra* note 417.

⁴²³ *Verified Voting Verifier, West Virginia*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=standard&state=West%20Virginia&year=2010> (last visited May 8, 2012).

⁴²⁴ W. VA. CODE ANN. § 3-4A-18 (West, WestLaw through 2011 Legis. Sess.).

⁴²⁵ W. VA. CODE ANN. §§ 3-1-5(a), -29(a)(1) (West, WestLaw through 2011 Legis. Sess.).

⁴²⁶ W. VA. CODE ANN. § 3-4A-5 (West, WestLaw through 2011 Legis. Sess.).

⁴²⁷ Telephone Interview with Bonnie Woodfall, Chief Deputy of Elections, Berkeley Cnty. (May 17, 2012) (on file with Verified Voting) [hereinafter *Bonnie Woodfall Interview*]; Telephone Interview with Marylou Myers, Cnty. Clerk, Lewis Cnty. (May 22, 2012) (on file with Verified Voting) [hereinafter *Marylou Myers Interview*]; Telephone Interview with Brian Wood, Cnty. Clerk, Putnam Cnty. (May 22, 2012) (on file with Verified Voting) [hereinafter *Brian Wood Interview*].

⁴²⁸ *Bonnie Woodfall Interview*, *id.*

⁴²⁹ *Marylou Myers Interview* and *Brian Wood Interview*, *supra* note 427.

⁴³⁰ *Brian Wood Interview*, *supra* note 427.

⁴³¹ W. VA. CODE ANN. § 3-1-26 (West, WestLaw through 2011 Legis. Sess.); *see also* E-mail Interview with Dave Nichols, Manager of Elections, W.V. Sec’y of State’s Office (Dec. 8, 2011) (on file with Verified Voting) [hereinafter *Dave Nichols Interview*].

⁴³² W. VA. CODE ANN. § 3-1-21(d) (West, WestLaw through 2011 Legis. Sess.); *see also Dave Nichols Interview*, *supra* note 431.

⁴³³ *Dave Nichols Interview*, *supra* note 431.

⁴³⁴ *Bonnie Woodfall Interview*, *supra* note 427.

⁴³⁵ UOCAVA VOTING IN FOUR STATES, A STUDY OF ELECTION ADMINISTRATION, at 8, *available at* www.eac.gov/assets/1/AssetManager/case_study_presentation.ppt (last visited July 5, 2012).

⁴³⁶ CONFERENCE REPORT, FACILITATING UOCAVA VOTING, Sept. 24, 2007, at 13, *available at* <http://www.eac.gov/assets/1/Page/facilitating%20uocava%20voting%20conference%20report.pdf> (last visited July 5, 2012).

⁴³⁷ *See, e.g.*, MD BD. OF ELECTIONS, Technical Proposal, Online Voter Registration & Ballot Marking and Counting: An Adaptable and Open Source Solution (Apr. 2013), *available at* <http://www.fvap.gov/resources/media/maryland.pdf>.

⁴³⁸ *See, e.g.*, Technical Proposal: NJ SVRS Enhancements to Improve Service to UOCAVA Voters (2011), *available at* <http://www.fvap.gov/resources/media/newjersey.pdf> (last visited July 5, 2012).

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- ⁴³⁹ *A Survey of Internet Voting*, U.S. ELECTION ASSISTANCE COMM’N, Sept. 14, 2011, at 34, *available at* <http://www.eac.gov/assets/1/Documents/SIV-FINAL.pdf> (last visited Jan. 20, 2012) [hereinafter *EAC SIV Report*].
- ⁴⁴⁰ *Id.* at 11, 34.
- ⁴⁴¹ *Id.* at 34.
- ⁴⁴² *Id.* at 29.
- ⁴⁴³ *Id.*
- ⁴⁴⁴ *Id.*
- ⁴⁴⁵ *Id.*; David Jefferson, et al, *A Security Analysis of the Secure Electronic Registration and Voting Experiment (SERVE)*, (Jan. 20, 2004), *available at* <http://servesecurityreport.org/> (last visited Mar. 14, 2012).
- ⁴⁴⁶ David Jefferson et al., *A comment on the May 2007 DoD report on Voting Technologies for UOCAVA Citizens* (June 13, 2007), *available at* http://www.servesecurityreport.org/SERVE_jr_v5.3.pdf (last visited Mar. 26, 2012).
- ⁴⁴⁷ Letter from Under Sec’y of Def. David Chu to Carl Levin, Chairman, U.S. Senate Armed Services Committee, et al. (May 18, 2007) *available at* <http://www.servesecurityreport.org/DoDMay2007.pdf> (last visited Mar. 26, 2012).
- ⁴⁴⁸ Cover sheet for facsimile or e-mail ballot return through ETS, *available at* <http://www.fvap.gov/resources/media/coversheet.pdf> (last visited 4 July 2012)
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- ⁴⁶² FED. VOTING ASSISTANCE PROGRAM 18TH REPORT, APPENDICES, *Legislative Initiatives and State-by-State Success Index*, at p. 8, *available at* http://www.fvap.gov/resources/media/18threport_appendices.pdf
- ⁴⁶³ *Id.*
- ⁴⁶⁴ ALA. CODE § 17-11-43(a)(4) (West, Westlaw through 2011 Leg. sess.); *see also* INSTRUCTIONS TO ALABAMA UOCAVA VOTERS, *available at* <http://www.sos.state.al.us/elections/uocavavoterinstructions.aspx> (last visited Jan. 17, 2012) [hereinafter *Instructions to AL UOCAVA Voters*].
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- ⁴⁶⁶ ALA. CODE § 17-11-43(c) (West, Westlaw through 2011 Leg. sess.).

⁴⁶⁷ *Instructions to AL UOCAVA Voters*, *supra* note 464; *see also* FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Alabama UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagAL.pdf> (last visited Jan. 17, 2012).

⁴⁶⁸ *See* MILITARY & OVERSEAS VOTING TASK FORCE REPORT OF THE ALABAMA SEC'Y OF STATE, available at <http://www.sos.alabama.gov/downloads/movtf/taskforcereport.pdf> (last visited Jan. 18, 2012).

⁴⁶⁹ Telephone Interview with Ed Packard, Supervisor of Voter Registration, Liaison for UOCAVA Voters, Sec'y of State's Office (June 28, 2012) (on file with Verified Voting) [hereinafter *Ed Packard Interview*].

⁴⁷⁰ *Id.*

⁴⁷¹ *Id.*

⁴⁷² ALASKA STAT. ANN. § 15.20.081 (West, Westlaw through Sept. 8, 2011).

⁴⁷³ ALASKA STAT. ANN. § 15.20.081(a) (West, Westlaw through Sept. 8, 2011); *see also* FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Alaska UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagAK.pdf> (last visited Jan. 18, 2012) [hereinafter *AK FVAP Instructions*].

⁴⁷⁴ ALASKA ADMIN. CODE tit. 6, §25.680 (West, Westlaw through July 2011), *AK FVAP Instructions*, *id.*; E-mail Interview with Gail Fenumiai, Dir., Alaska Div. of Elections (Jan. 9, 2012) (on file with Verified Voting) [hereinafter *Gail Fenumiai Interview*].

⁴⁷⁵ ALASKA ADMIN. CODE tit. 6, § 25.680(e) (West, Westlaw through July 2011).

⁴⁷⁶ *Id.*

⁴⁷⁷ ALASKA ADMIN. CODE tit. 6, § 25.680(f) (West, Westlaw through July 2011); *Gail Fenumiai Interview*, *supra* note 474.

⁴⁷⁸ *Gail Fenumiai Interview*, *supra* note 474.

⁴⁷⁹ *Id.*

⁴⁸⁰ *EAC SIV Report*, *supra* note 439, at 14.

⁴⁸¹ *Id.*

⁴⁸² *Id.*

⁴⁸³ ARIZ. REV. STAT. ANN. § 16-543(A) (West, Westlaw through 2011); *see also* FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Arizona UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagAZ.pdf> (last visited Jan. 20, 2012) [hereinafter *AZ FVAP Instructions*].

⁴⁸⁴ *Id.*

⁴⁸⁵ *AZ FVAP Instructions*, *supra* note 483.

⁴⁸⁶ Telephone Interview with Kim Stewart, Administrative Supervisor for Voter Registration, Mohave Cnty. (Feb. 1, 2012) (on file with Verified Voting) [hereinafter *Kim Stewart Interview*]; Telephone Interview with Christina, Yuma Cnty. Recorder's Office (Jan. 30, 2012) (on file with Verified Voting).

⁴⁸⁷ *Kim Stewart Interview*, *supra* note 486.

⁴⁸⁸ *Id.*

⁴⁸⁹ *EAC SIV Report*, *supra* note 439, at 15.

⁴⁹⁰ *Id.*

⁴⁹¹ *Id.*

⁴⁹² *Id.*

⁴⁹³ *Id.* at 16.

⁴⁹⁴ *Id.*

⁴⁹⁵ FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Arkansas UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagAR.pdf> (last visited Jan. 20, 2012).

⁴⁹⁶ *Id.*, ARK. CODE ANN. § 7-5-411(a)(1) (West, Westlaw through 2011 Leg. sess.).

⁴⁹⁷ *Vickie Bishop Interview*, *supra* note 81; *Alice Lowery Interview*, *supra* note 82.

⁴⁹⁸ FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for California UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagCA.pdf> (last visited Jan. 21, 2012).

⁴⁹⁹ *Id.*

⁵⁰⁰ *Id.*, CAL. ELEC. CODE §3103.5(a) (West, Westlaw through 2011 Leg. sess.); *Philly Crosby Interview*, *supra* note 90.

⁵⁰¹ *Id.*

⁵⁰² CAL. ELEC. CODE §3103.5(b) (West, Westlaw through 2011 Leg. Sess.).

⁵⁰³ CAL. ELEC. CODE §3103.5(d) (West, Westlaw through 2011 Leg. sess.); *Philly Crosby Interview*, *supra* note 90.

⁵⁰⁴ *Narda Barrientos Interview*, *Neal Kelley Interview*, and *Carolyn Crnich Interview*, *supra* note 88.

⁵⁰⁵ *Carolyn Crnich Interview*, *supra* note 88; *Follow-up Interview with OLCA*, *supra* note 90.

⁵⁰⁶ *Neal Kelley Interview*, *supra* note 88.

⁵⁰⁷ *Narda Barrientos Interview*, *supra* note 88.

⁵⁰⁸ *Neal Kelley Interview*, *supra* note 88.

⁵⁰⁹ *Id.*

⁵¹⁰ S.A.B. 1929, available at http://www.leginfo.ca.gov/pub/11-12/bill/asm/ab_1901-1950/ab_1929_bill_20120628_amended_sen_v95.html; *Follow-up Interview with OLCA*, *supra* note 90.

⁵¹¹ COLO. REV. STAT. ANN. § 1-8.3-110(2) (West, Westlaw though 2011).

⁵¹² FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Colorado UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagCO.pdf> (last visited Jan. 22, 2012).

⁵¹³ COLO. REV. STAT. ANN. § 1-8.3-113(1) (West, Westlaw though 2011).

⁵¹⁴ E-mail Interview with J. Wayne Munster, Deputy Dir. of Elections, Colo. Sec’y of State’s Office (Dec. 13, 2011) (on file with Verified Voting) [hereinafter *Wayne Munster Interview*].

⁵¹⁵ *Id.*

⁵¹⁶ COLO. REV. STAT. ANN. § 1-5.5-101(1) (West, Westlaw though 2011).

⁵¹⁷ *Id.*

⁵¹⁸ *Patty Berger Interview*, *supra* note 105.

⁵¹⁹ *Diane Folowell Interview*, *supra* note 105.

⁵²⁰ *Beth Cumming Interview*, *supra* note 105.

⁵²¹ CONN. GEN. STAT. § 9-140(b) (West, Westlaw current through 2011 Jan. Reg. sess. and June Sp. sess.); *see also* E-mail interview with Shannon Wegele, Chief of Staff Conn. Sec’y of State (July 13, 2012) (on file with Verified Voting) [hereinafter *Shannon Wegele Interview*].

⁵²² *Id.*; *see also* Application for Absentee Ballot available at <http://www.ct.gov/sots/LIB/sots/ElectionServices/ElectForms/electforms/aabeng.pdf> (last visited Jan. 23, 2012).

⁵²³ CONN. GEN. STAT. §§ 9-140, -153(e), -153(f) (West, Westlaw current through 2011 Jan. Reg. sess. and June Sp. sess.); *Shannon Wegele Interview*, *supra* note 521; *see also* FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Connecticut UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagCT.pdf> (last visited Jan. 23, 2012) [hereinafter *CT FVAP Instructions*].

⁵²⁴ *CT FVAP Instructions*, *id.*

⁵²⁵ CONN. GEN. STAT. § 9-153(e) (West, Westlaw current through 2011 Jan. Reg. sess. and June Sp. sess.).

⁵²⁶ CONN. GEN. STAT. § 9-140b (West, Westlaw current through 2011 Jan. Reg. sess. and June Sp. sess.); *CT FVAP Instructions*, *supra* note 523; Telephone Interview with Peggy Reeves, Asst. to the Sec’y of the State for Elections, Legislative and Intergovernmental Affairs (May 10, 2012) (on file with Verified Voting) [hereinafter *Peggy Reeves Interview*].

⁵²⁷ Telephone Interview with Anne Roche, Asst. Town Clerk, Fairfield Cnty. (May 4, 2012) (on file with Verified Voting); Telephone and E-mail Interview with Carole Young-Kleinfeld, Registrar of Voters, Wilton, Conn. (May 2, 2012) (on file with Verified Voting) [hereinafter *Carole Young-Kleinfeld Interview*]; Telephone Interview with Alice Fortunado, Registrar of Voters, Stamford, Conn. (May 4, 2012) [hereinafter *Alice Fortunado Interview*].

⁵²⁸ Public Act 11-173, An Act Concerning Revisions to Election Related Statutes, available at <http://www.cga.ct.gov/2011/ACT/PA/2011PA-00173-R00SB-00939-PA.htm> (last visited Jan. 23, 2012); *Shannon Wegele Interview*, *supra* note 521.

⁵²⁹ H. B. 5556, 2012 Sess., Gen. Assemb. (Conn. 2012); *Peggy Reeves Interview*, *supra* note 526; *Shannon Wegele Interview*, *supra* note 521.

⁵³⁰ *Absentee Voting: Military and Overseas Voters*, DEPARTMENT OF ELECTIONS, http://electionsncc.delaware.gov/absentee_de/de_uocava.shtml#voters (last visited Dec. 10, 2011).

⁵³¹ *Id.*; *see also* FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Delaware UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagDE.pdf> (last visited Jan. 25, 2012) [hereinafter *DE FVAP Instructions*].

⁵³² *DE FVAP Instructions*, *id.*

⁵³³ *Military and Overseas Voters: Got My Ballot By Email*, DEPARTMENT OF ELECTIONS, http://electionsncc.delaware.gov/absentee_de/email.shtml (last visited Dec. 10, 2011); *Elaine Manlove Interview*, *supra* note 118.

⁵³⁴ *Kenneth McDowell Interview*, *Joyce Wright and Gary Hilderbrand Interview*, and *Howard Sholl Interview*, *supra* note 119.

⁵³⁵ *Id.*

536 *Id.*

537 *Id.*

538 *Id.*

539 Mark Fowser, *Delaware Ready to Facilitate 2012 Voting for Military Members and Citizens Overseas*, NEWSWORKS (Dec. 8, 2011), <http://www.newsworks.org/index.php/local/item/30998>.

540 D.C. MUN. REGS. tit. 3, § 718.2, .5 (West, Westlaw through Dec. 2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for District of Columbia UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagDC.pdf> (last visited Jan. 24, 2012) [hereinafter *DC FVAP Instructions*].

541 D.C. MUN. REGS. tit. 3, § 718.8. (West, Westlaw through Dec. 2011); *DC FVAP Instructions*, *id.*; see also Telephone Interview with Alysoun McLaughlin, Pub. Affairs Manager, D.C. Bd. Of Elections and Ethics (Feb. 24, 2012) (on file with Verified Voting) [hereinafter *Alysoun McLaughlin Interview*].

542 Telephone Interview with Kevin Newsome, Voter Service Assistant (July 5, 2012) (on file with Verified Voting) [hereinafter *Kevin Newsome Interview*].

543 BOARD ANNOUNCES PUBLIC TEST OF DIGITAL VOTE BY MAIL SERVICE, Sept. 21, 2010, available at http://www.dcboee.org/pdf_files/nr_588.pdf (last visited Jan. 24, 2012).

544 *EAC SIV Report*, *supra* note 439, at 19.

545 See J. Alex Halderman, *Hacking the D.C. Internet Voting Pilot*, available at <https://freedom-to-tinker.com/blog/jhalderm/hacking-dc-internet-voting-pilot> (last visited Jan. 24, 2012) [hereinafter *Halderman Hack*].

546 *Id.*

547 DC BOEE LESSONS LEARNED FROM DIGITAL VOTE BY MAIL HACKING, available at http://dcboee.us/dvm/ps_hacker_response.htm (last visited Jan. 24, 2012) [hereinafter *DC Hack Response*].

548 *Halderman Hack*, *supra* note 545.

549 *DC Hack Response*, *supra* note 547.

550 *Id.*

551 *Kevin Newsome Interview*, *supra* note 542.

552 FLA. ADMIN. CODE r.1S-2.049(2)(a) (West, Westlaw through 2011); see also FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Florida UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagFL.pdf> (last visited Jan. 25, 2012) [hereinafter *FL FVAP Instructions*].

553 FLA. STAT. ANN. § 101.62(4)(c)(2) (West, Westlaw through 2011); *FL FVAP Instructions*, *id.*

554 FLA. ADMIN. CODE r. 1S-2.030, Electronic Transmission of Absentee Ballots, subpara. (4), available at <https://www.flrules.org/gateway/RuleNo.asp?title=ELECTIONS&ID=1S-2.030> (last visited Jan. 26, 2012); *FL FVAP Instructions*, *supra* note 552; see also FLA. STAT. ANN. § 101.697 (West, Westlaw through 2011).

555 See Final Rule 1S-2.030, Absentee Ballots for Overseas Voters, subparas. (4)(c), (6)(e), available at <https://www.flrules.org/gateway/RuleNo.asp?title=ELECTIONS&ID=1S-2.030> (last visited July 5, 2012); see also E-mail Interview with Dr. Gisela Salas, Dir., Fla. Div. of Elections (Dec. 22, 2011) (on file with Verified Voting) [hereinafter *Gisela Salas Interview*].

556 Telephone Interview with Larhonda Wimberly, Tabulation Manager, Miami-Dade Cnty. (Mar. 2, 2012) (on file with Verified Voting) [hereinafter *Larhonda Wimberly Interview*].

557 *EAC SIV Report*, *supra* note 439, at 23.

558 *Id.* at 24.

559 *Id.* at 23.

560 *Id.*

561 *Id.*

562 GA. CODE ANN. § 21-2-381(a)(1)(A) (West, Westlaw through 2011 Legis. sess.); see also FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Georgia UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagGA.pdf> (last visited Jan. 28, 2012) [hereinafter *GA FVAP Instructions*].

563 GA. CODE ANN. § 21-2-384(e) (West, Westlaw through 2011 Legis. sess.); *GA FVAP Instructions*, *id.*

564 *Id.*

565 GA. CODE ANN. § 21-2-385(a) (West, Westlaw through 2011 Legis. sess.); *GA FVAP Instructions*, *supra* note 562.

566 *Sberrail Jarret Interview*, *supra* note 126.

567 *Jeff Jones Interview*, *supra* note 126.

⁵⁶⁸ Telephone Interview with Tianna Evola, Admin. Asst., Fulton Cnty. (Mar. 20, 2012) (on file with Verified Voting).

⁵⁶⁹ GA. CODE ANN. § 21-2-387(a) (West, Westlaw through 2011 Legis. sess.).

⁵⁷⁰ *Id.* at subpara. (b).

⁵⁷¹ *Id.* at subpara. (f)(1).

⁵⁷² *Id.* at subpara. (g).

⁵⁷³ E-mail Interview with Josh Waters, Asst. Dir., Elections Div., Office of Sec’y of State (Feb. 20, 2012).

⁵⁷⁴ FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Hawaii UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagHI.pdf> (last visited Jan. 28, 2012) [hereinafter *HI FVAP Instructions*].

⁵⁷⁵ HAW. REV. STAT. § 15-5 (West, Westlaw through 2011 Leg. sess.).

⁵⁷⁶ HAW. REV. STAT. § 15-5(b) (West, Westlaw through 2011 Leg. sess.); *HI FVAP Instructions*, *supra* note 574.

⁵⁷⁷ Telephone Interview with Hoku F., Maui Cnty. Clerk’s office (May 3, 2012) (on file with Verified Voting) [hereinafter *Hoku F. Interview*].

⁵⁷⁸ *EAC SIV Report*, *supra* note 439, at 21.

⁵⁷⁹ *Id.*

⁵⁸⁰ *Id.* at 22.

⁵⁸¹ *Id.* at 21.

⁵⁸² *Id.*

⁵⁸³ Voice-mail message from Bryan Mick, Community Relations Specialist III/Exec. Asst., Honolulu Neighborhood Commission Office (May 8, 2012) (on file with Verified Voting).

⁵⁸⁴ IDAHO CODE ANN. § 34-1002(7) (LexisNexis through 2011 Leg. sess.).

⁵⁸⁵ IDAHO CODE ANN. §§ 34-1003(3), (4) (LexisNexis through 2011 Leg. sess.); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Idaho UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagID.pdf> (last visited Jan. 29, 2012) [hereinafter *ID FVAP Instructions*].

⁵⁸⁶ IDAHO CODE ANN. § 34-1003(4) (LexisNexis through 2011 Leg. sess.); *ID FVAP Instructions*, *id.*

⁵⁸⁷ IDAHO CODE ANN. § 34-1005 (LexisNexis through 2011 Leg. sess.), *ID FVAP Instructions*, *supra* note 585.

⁵⁸⁸ *ID FVAP Instructions*, *supra* note 585.

⁵⁸⁹ E-mail Interview with Jim Mairs, HAVA Coordinator, Elections Div., Idaho Sec’y of State (Nov. 23, 2011 and Mar. 21, 2012) (on file with Verified Voting) [hereinafter *Jim Mairs Interview*].

⁵⁹⁰ Telephone and E-mail Interview with Lura Baker, Custer Cnty. Clerk’s Office (Mar. 19, 2012) (on file with Verified Voting) [hereinafter *Lura Baker Interview*]; Telephone Interview with Sarita Loya, Deputy Elections Clerk, Boise Cnty. (Mar. 19, 2012) (on file with Verified Voting) [hereinafter *Sarita Loya Interview*]; Telephone and E-mail Interview with Janice Shiner, Deputy Election Clerk, Shoshone Cnty. (Mar. 19, 2012) (on file with Verified Voting) [hereinafter *Janice Shiner Interview*].

⁵⁹¹ *Lura Baker Interview* and *Sarita Loya Interview*, *id.*

⁵⁹² *Lura Baker Interview*, *supra* note 590.

⁵⁹³ 10 ILL. COMP. STAT. 5/20-2.1 (LexisNexis current through Pub. Acts 97-619 of the 2011 Legis. sess.); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Illinois UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagIL.pdf> (last visited Feb. 2, 2012) [hereinafter *IL FVAP Instructions*].

⁵⁹⁴ *IL FVAP Instructions*, *id.*

⁵⁹⁵ *Id.*

⁵⁹⁶ 10 ILL. COMP. STAT. 5/20 (LexisNexis current through Pub. Acts 97-619 of the 2011 Legis. sess.); ILL. STATE BD. OF ELECTIONS, MILITARY AND OVERSEAS VOTER GUIDELINES, available at <http://elections.il.gov/Downloads/ElectionInformation/PDF/GuideMilitaryOvrsvtr.pdf> (last visited Feb. 2, 2012); Military/Overseas Ballots Returned at Higher Rate (Apr. 17, 2012), available at http://www.chicagoelections.com/dm/news_releases/document_3935.pdf (last visited July 8, 2012).

⁵⁹⁷ *Rupert Borgsmiller Interview*, *supra* note 144.

⁵⁹⁸ IND. CODE ANN. § 3-11-4-4(a) (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.).

⁵⁹⁹ IND. CODE ANN. § 3-11-4-17 (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.).

⁶⁰⁰ IND. CODE ANN. §§ 3-11-4-4(a)(4), -5.7 (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Indiana UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagIN.pdf> (last visited Feb. 8, 2012) [hereinafter *IN FVAP Instructions*].

⁶⁰¹ IND. CODE ANN. §§ 3-11-4-6(h), (i) (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.); *IN FVAP Instructions*, *id.*; *see also Vance Pool Interview*, *supra* note 168.

⁶⁰² IND. CODE ANN. §§ 3-11-4-6(h) (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.).

⁶⁰³ IND. CODE ANN. § 3-11-4-5.7 (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.).

⁶⁰⁴ *Jennifer Baxter Interview*, *Janet Hasser Interview* and *Kathy Richardson Interview*, *supra* note 172.

⁶⁰⁵ *Janet Hasser Interview*, *supra* note 172.

⁶⁰⁶ *See* FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Iowa UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagIA.pdf> (last visited Feb. 10, 2012) [hereinafter *IA FVAP Instructions*].

⁶⁰⁷ *Id.*

⁶⁰⁸ *Id.*; E-mail Interview with Mary Mosiman, Deputy of Elections, Iowa Sec’y of State’s Office (Dec. 2, 2011) (on file with Verified Voting) [hereinafter *Mary Mosiman Interview*].

⁶⁰⁹ *LA FVAP Instructions*, *supra* note 606.

⁶¹⁰ *Id.*

⁶¹¹ Telephone Interview with Roland Caldwell, Operations Manager, Auditors Office, Scott Cnty. (May 29, 2012) (on file with Verified Voting) [hereinafter *Roland Caldwell Interview*]; Telephone Interview with Brenda Peshel, Deputy Auditor, Dallas Cnty. (May 29, 2012) (on file with Verified Voting) [hereinafter *Brenda Peshel Interview*]; Telephone Interview with Gloria Carr, Cnty. Auditor, Floyd Cnty. (May 23, 2012) (on file with Verified Voting) [hereinafter *Gloria Carr Interview*].

⁶¹² KAN. STAT. ANN. § 25-1216(b) (2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Kansas UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagKS.pdf> (last visited Feb. 11, 2012) [hereinafter *KS FVAP Instructions*].

⁶¹³ *KS FVAP Instructions*, *id.*

⁶¹⁴ KAN. STAT. ANN. § 25-1216(b) (2011); *see also Brad Bryant Interview*, *supra* note 183.

⁶¹⁵ Kansas Sec’y of State, “Federal Services Voting,” available at http://www.kssos.org/elections/elections_registration_federal.html (last visited Nov. 12, 2011).

⁶¹⁶ KAN. STAT. ANN. § 25-1216(b) (2011).

⁶¹⁷ *Krysta Torsen Interview*, *supra* note 179; *Marcia Ashmore Interview*, *supra* note 180; *Jenna Fager Interview*, *supra* note 181.

⁶¹⁸ *Krysta Torsen Interview*, *supra* note 179.

⁶¹⁹ 31 KY. ADMIN. REGS. 4:130 (2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Kentucky UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagKY.pdf> (last visited Feb. 12, 2012) [hereinafter *KY FVAP Instructions*]; *Military and Overseas Citizens*, KY. ST. BD. OF ELECTIONS, <http://elect.ky.gov/voterinfo/Pages/militaryandoverseascitizens.aspx> (last visited Feb. 12, 2012).

⁶²⁰ 31 KY. ADMIN. REGS. 4:130, Sec. 3(3) (2011); *KY FVAP Instructions*, *id.*

⁶²¹ 31 KY. ADMIN. REGS. 4:130, Sec. (5) (2011); *KY FVAP Instructions*, *supra* note 619; *Maryellen Allen Interview*, *supra* note 194.

⁶²² *Jan Mills Interview*, *Valerie Newell Interview* and *Tracy Merriman Interview*, *supra* note 198.

⁶²³ LA. REV. STAT. ANN. § 18:1307(B)(1)(a) (LexisNexis current through 2011 Leg. sess.).

⁶²⁴ LA. SEC’Y OF STATE, FREQUENTLY ASKED QUESTIONS REGARDING VOTING ABSENTEE BY MAIL, available at <http://www.sos.la.gov/Portals/0/elections/pdf/FreqAskQuestRegardVotgAbsentbyMail6-25-10.pdf> (last visited Feb. 13, 2012).

⁶²⁵ LA. REV. STAT. ANN. § 18:1307(B)(1)(a), (c) (LexisNexis current through 2011 Leg. sess.); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Louisiana UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagLA.pdf> (last visited Feb. 13, 2012) [hereinafter *LA FVAP Instructions*].

⁶²⁶ LA. REV. STAT. ANN. § 18:1308(A)(2)(f) (LexisNexis current through 2011 Leg. sess.); *LA FVAP Instructions*, *id.*; *Angie Rogers Interview*, *supra* note 208.

⁶²⁷ LA. REV. STAT. ANN. § 18:1308(A)(2)(f) (LexisNexis current through 2011 Leg. sess.).

⁶²⁸ *Id.* at subpara. (A)(2)(g).

⁶²⁹ *Alaina Rung Interview*, *supra* note 209.

⁶³⁰ ME. REV. STAT. ANN. tit. 21-A, §§ 753-A.4, .6 (LexisNexis current through Chap. 447 of the First Legis. sess. 2011); E-mail Interview with Julie Flynn, Deputy Sec’y of State, Bureau of Corporations, Elections and Commissions (July 11, 2012) (on file with Verified Voting) [hereinafter *Follow-up Julie Flynn Interview*].

⁶³¹ FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Maine UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagME.pdf> (last visited Feb. 15, 2012) [hereinafter *ME FVAP*].

Instructions]; ME. REV. STAT. ANN. tit. 21-A, §§ 780-A, 783 (LexisNexis current through Chap. 447 of the First Legis. sess. 2011); *See also* Me. Sec'y of State, Bureau of Corps., Elections and Comm'ns, http://maine.gov/sos/cec/elec/voter_info/uocava.htm (last visited July 17, 2012) [hereinafter *Maine UOCAVA Instructions*]; *Follow-up Julie Flynn Interview*, *supra* note 630.

⁶³² *ME FVAP Instructions*, *id.*

⁶³³ E-mail Interview with Julie Flynn, Deputy Sec'y of State, Bureau of Corporations, Elections and Commissions (Jan. 13, 2012) (on file with Verified Voting) [hereinafter *Julie Flynn Interview*].

⁶³⁴ *ME FVAP Instructions*, *supra* note 631; *Maine UOCAVA Instructions*, *supra* note 631; *Follow-up Julie Flynn Interview*, *supra* note 630.

⁶³⁵ Telephone Interview with Karrie Cramer, Deputy Registrar and Election Warden, Harrington (June 13, 2012) (on file with Verified Voting) [hereinafter *Karrie Cramer Interview*]; Telephone Interview with Carmen Morris City Clerk, Biddeford (June 13, 2012) (on file with Verified Voting) [hereinafter *Carmen Morris Interview*]; Telephone Interview with Christine Wolfe, Town Clerk, Wiscasset (June 13, 2012) (on file with Verified Voting) [hereinafter *Christine Wolfe Interview*].

⁶³⁶ *Christine Wolfe Interview*, *id.*

⁶³⁷ MD. CODE REGS. 33.11.02, .03 (2011); *see also* FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Maryland UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagMD.pdf> (last visited Feb. 25, 2012) [hereinafter *MD FVAP Instructions*].

⁶³⁸ MD. CODE REGS. 33.11.02.02(B)(2) (2011).

⁶³⁹ MD. CODE REGS. 33.11.03.05 (2011); *MD FVAP Instructions*, *supra* note 637.

⁶⁴⁰ MD. CODE REGS. 33.11.03.06 (2011); *MD FVAP Instructions*, *supra* note 637; *Ross Goldstein Interview*, *supra* note 54.

⁶⁴¹ *David Gareiss Interview*, *supra* note 229; *Steve Fratz Interview* and *Evelyn Potter Interview*, *supra* note 227.

⁶⁴² *Evelyn Potter Interview*, *supra* note 227.

⁶⁴³ J.J. Smith, *Takoma Park Voters Could Be Able to Cast Ballots Online for 2011 City Election*, TAKOMAPARKPATCH, May 20, 2011, available at <http://takomapark.patch.com/articles/takoma-park-voters-will-be-able-to-cast-ballots-online-for-2011-city-election>.

⁶⁴⁴ *Id.*

⁶⁴⁵ *Id.*

⁶⁴⁶ Voting for Military and Overseas US Citizens, available at <http://www.sec.state.ma.us/ele/elemil/milidx.htm> (last visited Nov. 4, 2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Massachusetts UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagMA.pdf> (last visited Feb 25, 2012).

⁶⁴⁷ *Id.*

⁶⁴⁸ *Id.*

⁶⁴⁹ Telephone Interview with Kathleen Nagle, Town Clerk, Wellesley (June 13, 2012) (on file with Verified Voting) [hereinafter *Kathleen Nagle Interview*]; Telephone Interview with Mary Kennedy, Town Clerk, Williamstown (June 13, 2012) (on file with Verified Voting) [hereinafter *Mary Kennedy Interview*]; Telephone Interview with Elizabeth Camara, Chair, Bd. Of Elections, Fall River (June 13, 2012) (on file with Verified Voting) [hereinafter *Elizabeth Camara Interview*].

⁶⁵⁰ *Military and Overseas Voter Empowerment Act ("MOVE" Act) Part #2: Creating Absent Voter Ballots That Will Be Sent By E-Mail or Fax*, MICH. BUREAU OF ELECTIONS (June 2010), available at http://michigan.gov/documents/sos/Instructions_MOVE_Part_2_final_325015_7.pdf.

⁶⁵¹ *Id.*

⁶⁵² *Id.*

⁶⁵³ *Id.*; E-mail Interview with Melissa Malerman, Mich. Bureau of Elections (Feb. 6, 2012) (on file with Verified Voting) [hereinafter *Melissa Malerman Interview*].

⁶⁵⁴ *Instructions for Absent Uniformed Services Voters and Overseas Voters Receiving an Absentee Ballot by E-Mail or Fax*, BUREAU OF ELECTIONS (Feb. 2011), available at http://michigan.gov/documents/sos/Move_Inst_325025_7.pdf.

⁶⁵⁵ Interview with Deborah Hillman, Cnty. Clerk, Kalaska Cnty. (on file with Verified Voting) [hereinafter *Deborah Hillman Interview*]; Telephone Interview with Dina Peek, Administrative Asst., Elections Div. (Feb. 6, 2012) (on file with Verified Voting) [hereinafter *Dina Peek Interview*]; Interview with Dawn Olney, Cnty. Clerk, Benzie Cnty. (on file with Verified Voting) [hereinafter *Dawn Olney Interview*].

⁶⁵⁶ *Dawn Olney Interview*, *id.*

⁶⁵⁷ *Id.*

⁶⁵⁸ *Id.*

⁶⁵⁹ *Id.*

⁶⁶⁰ *Id.*

⁶⁶¹ *EAC SIV Report*, *supra* note 439, at 22.

⁶⁶² *Id.*

⁶⁶³ *Id.*

⁶⁶⁴ MINN. STAT. ANN. § 203B.04(1) (West 2010); Minn. Sec’y of State, Absentee Voting, *available at* <http://www.sos.state.mn.us/index.aspx?page=211> (last visited Feb. 26, 2012).

⁶⁶⁵ MINN. STAT. ANN. § 203B.225(1) (West 2010); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Minnesota UOCAVA Voters*, *available at* <http://www.fvap.gov/resources/media/vagMN.pdf> (last visited Feb. 26, 2012) [hereinafter *MN FVAP Instructions*].

⁶⁶⁶ *MN FVAP Instructions*, *id.*

⁶⁶⁷ *Id.*; MINN. STAT. ANN. § 203B.225(2) (West 2010). *See also* E-mail Interview with Gary Poser, Dir. of Elections, Minn. Sec’y of State’s Office (Jan. 6, 2012) (on file with Verified Voting) [hereinafter *Gary Poser Interview*].

⁶⁶⁸ Telephone Interview with Heather Henrich, Deputy Auditor, Big Stone Cnty. (Apr. 24, 2012) (on file with Verified Voting) [hereinafter *Heather Henrich Interview*]; Telephone Interview with Mary Schwendig, Election Technician, Dakota Cnty. (Apr. 17, 2012) (on file with Verified Voting) [hereinafter *Mary Schwendig Interview*]; E-mail Interview with Vicki Doehling, Deputy Auditor/Treasurer - Elections Administrator Douglas Cnty. (Apr. 18, 2012) (on file with Verified Voting) [hereinafter *Vicki Doehling Interview*].

⁶⁶⁹ *Heather Henrich Interview*, *supra* note 668.

⁶⁷⁰ MISS. CODE ANN. § 23-15-657 (2011).

⁶⁷¹ MISS. CODE ANN. §§ 23-15-699(1), (2) (2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Mississippi UOCAVA Voters*, *available at* <http://www.fvap.gov/resources/media/vagMS.pdf> (last visited Feb. 26, 2012) [hereinafter *MS FVAP Instructions*].

⁶⁷² *Id.*

⁶⁷³ MISS. CODE ANN. § 23-15-699(3) (2011); *MS FVAP Instructions*, *supra* note 671.

⁶⁷⁴ MISS. CODE ANN. § 23-15-699(4) (2011).

⁶⁷⁵ MISS. CODE ANN. § 23-15-699(5) (2011).

⁶⁷⁶ *Miss Lofton Interview* and *Miss Stanford Interview*, *supra* note 236.

⁶⁷⁷ *Pamela Weaver Interview*, *supra* note 235.

⁶⁷⁸ MO. ANN. STAT. § 115.279 (West 2011).

⁶⁷⁹ *Id.*; MO. ANN. STAT. § 115.287 (West 2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Missouri UOCAVA Voters*, *available at* <http://www.fvap.gov/resources/media/vagMO.pdf> (last visited Mar. 4, 2012) [hereinafter *MO FVAP Instructions*].

⁶⁸⁰ *MO FVAP Instructions*, *id.*; MISSOURI SEC’Y OF STATE, MILITARY/OVERSEAS VOTERS, *available at* <http://www.sos.mo.gov/elections/military/#retBallot> (last visited Mar. 4, 2012); E-mail Interview with Chrissy Peters, Elections Div., Missouri Sec’y of State’s Office (Jan. 9, 2012) (on file with Verified Voting) [hereinafter *Chrissy Peters Interview*].

⁶⁸¹ MISSOURI SEC’Y OF STATE, ELECTRONIC TRANSMISSION OF ABSENTEE BALLOT COVER SHEET, *available at* http://www.sos.mo.gov/elections/military/Fax_Cover_Sheet.pdf (last visited Mar. 4, 2012).

⁶⁸² *Id.*; *Chrissy Peters Interview*, *supra* note 680.

⁶⁸³ Telephone Interview with Zack McFarland, Election Coordinator, Greene Cnty. (Apr. 10, 2012) (on file with Verified Voting) [hereinafter *Zack McFarland Interview*]; Telephone Interview with Marvin Register, Cnty. Clerk, Cole Cnty. (Apr. 10, 2012) (on file with Verified Voting) [hereinafter *Marvin Register Interview*]; Telephone Interview with Barbara Daly, Cnty. Clerk, Warren Cnty. (Apr. 12, 2012) (on file with Verified Voting) [hereinafter *Barbara Daly Interview*].

⁶⁸⁴ *Zack McFarland Interview*, *id.*

⁶⁸⁵ MONT. CODE ANN. §§ 13-21-207(c), (d) (West 2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Montana UOCAVA Voters*, *available at* <http://www.fvap.gov/resources/media/vagMT.pdf> (last visited Mar. 5, 2012) [hereinafter *MT FVAP Instructions*].

⁶⁸⁶ *MT FVAP Instructions*, *id.*; E-mail Interview with Lisa Kimmet, Deputy for Elections and Government Services, Mont. Sec’y of State’s Office (July 12, 2012) (on file with Verified Voting) [hereinafter *Follow-up Lisa Kimmet Interview*].

⁶⁸⁷ *Id.*

⁶⁸⁸ *Id.*; MONT. CODE ANN. § 13-21-207(e) (West 2011).

⁶⁸⁹ MONT. CODE ANN. § 13-21-104(e) (West 2011).

⁶⁹⁰ E-mail Interview with Lisa Kimmel, Deputy for Elections and Gov't Servs., Mont. Sec'y of State's Office (Dec. 5, 2011) (on file with Verified Voting) [hereinafter *Lisa Kimmel Interview*].

⁶⁹¹ E-mail Interview with Rebecca Connors, Elections Coordinator, Missoula Cnty. Elections Office (Mar. 26, 2012) (on file with Verified Voting) [hereinafter *Rebecca Connors Interview*]; Telephone Interview with Misti Norris, Fergus Cnty. Election Facilitator (Apr. 10, 2012) (on file with Verified Voting) [hereinafter *Misti Norris Interview*]; Telephone Interview with Kathie Newgard Cnty. Clerk, Lake Cnty. (Apr. 4, 2012) (on file with Verified Voting) [hereinafter *Kathie Newgard Interview*]; Telephone Interview with Sherry Bjorndal, Cnty. Clerk, Sweet Grass Cnty. (Apr. 10, 2012) [hereinafter *Sherry Bjorndal Interview*]; *Follow-up Lisa Kimmel Interview*, *supra* note 686.

⁶⁹² *Misti Norris Interview*, *supra* note 691.

⁶⁹³ *Id.*

⁶⁹⁴ *Kathie Newgard Interview*, *supra* note 691.

⁶⁹⁵ *Sherry Bjorndal Interview*, *supra* note 691.

⁶⁹⁶ NEBRASKA SEC'Y OF STATE, *Voter Information Frequently Asked Questions*, available at http://www.sos.ne.gov/elec/voter_info.html (last visited Mar. 5, 2012); *see also* E-mail Interview with Becky Richter, Election Div., Neb. Sec'y of State's Office (July 3, 2012) (on file with Verified Voting) [hereinafter *Becky Richter Interview*].

⁶⁹⁷ NEB. REV. STAT. § 32-941 (2011).

⁶⁹⁸ NEB. REV. STAT. § 32-939.02(6) (2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Nebraska UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagNE.pdf> (last visited Mar. 5, 2012) [hereinafter *NE FVAP Instructions*].

⁶⁹⁹ *NE FVAP Instructions*, *id.*

⁷⁰⁰ *Becky Richter Interview*, *supra* note 696; *see also id.*, indicating that if no preference is selected and no e-mail address is provided, the ballot will be mailed.

⁷⁰¹ *NE FVAP Instructions*, *supra* note 698; NEB. REV. STAT. § 32-939.02(6) (2011); *Becky Richter Interview*, *supra* note 696.

⁷⁰² *Becky Richter Interview*, *supra* note 696.

⁷⁰³ NEV. REV. STAT. § 293.323(1), (2) (2011).

⁷⁰⁴ NEV. REV. STAT. § 293.323(2) (2011).

⁷⁰⁵ E-mail Conversation with Ryan High, Deputy Sec'y for Operations, Nev. Sec'y of State's Office (Apr. 19, 2012) (on file with Verified Voting) [hereinafter *Follow-up Ryan High Interview*].

⁷⁰⁶ *Larry Lomax Interview*, *supra* note 262; *Dan Burk Interview*, *supra* note 263.

⁷⁰⁷ *Cindy Elgan Interview*, *supra* note 265.

⁷⁰⁸ NEV. REV. STAT. §§ 293D.300, .320 (2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Nevada UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagNV.pdf> (last visited Mar. 5, 2012) [hereinafter *NV FVAP Instructions*].

⁷⁰⁹ *NV FVAP Instructions*, *id.*

⁷¹⁰ *Id.*; NEV. REV. STAT. § 293D.420 (2011).

⁷¹¹ NEV. REV. STAT. § 293D.510 (2011).

⁷¹² *Larry Lomax Interview*, *supra* note 262; *Dan Burk Interview*, *supra* note 263; *Cindy Elgan Interview*, *supra* note 265.

⁷¹³ N.H. REV. STAT. ANN. §§ 657:15, :19(II) – (IV) (West 2011) FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for New Hampshire UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagNH.pdf> (last visited Mar. 6, 2012) [hereinafter *NH FVAP Instructions*].

⁷¹⁴ *NH FVAP Instructions*, *id.*

⁷¹⁵ *Id.*; N.H. REV. STAT. ANN. § 657:17 (West 2011); E-mail Interview with Anthony Stevens, Asst. Sec'y of State, New Hampshire (Dec. 21, 2011) (on file with Verified Voting) [hereinafter *Anthony Stevens Interview*].

⁷¹⁶ N.J. STAT. ANN. § 19:59-8.1 (West 2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for New Jersey UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagNJ.pdf> (last visited Mar. 6, 2012) [hereinafter *NJ FVAP Instructions*].

⁷¹⁷ *NJ FVAP Instructions*, *id.*; N.J. STAT. ANN. § 19:59-10(c) (West 2011).

⁷¹⁸ N.J. STAT. ANN. § 19:59-14(c) (West 2011); *NJ FVAP Instructions*, *supra* note 716;

⁷¹⁹ N.J. STAT. ANN. §§ 19:59-15(a), 15(d) (West 2011).

⁷²⁰ N.J. STAT. ANN. § 19:59-15(c) (West 2011).

⁷²¹ *Robert Giles Interview*, *supra* note 59.

⁷²² FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for New Mexico UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagNM.pdf> (last visited Mar. 6, 2012).

⁷²³ *Id.*

⁷²⁴ *Id.*; N.M. STAT. §§ 1-6-9.C(1), (2) (West 2011); *see also* E-mail Interview with Bobbie Shearer, Dir., Bureau of Elections, New Mexico Sec'y of State's Office (Feb. 10, 2012) (on file with Verified Voting) [hereinafter *Bobbie Shearer Interview*].

⁷²⁵ Telephone Interview with Peggy Carabajal, Dir., Bureau of Elections, Valencia Cnty. (May 9, 2012) (on file with Verified Voting) [hereinafter *Peggy Carabajal Interview*]; Telephone Interview with Tanya Shelby, Deputy Clerk, San Juan Cnty. (May 12, 2012) (on file with Verified Voting) [hereinafter *Tanya Shelby Interview*]; Telephone Interview with Janet Collins, Cnty. Clerk, Roosevelt Cnty. (May 9, 2012) (on file with Verified Voting) [hereinafter *Janet Collins Interview*].

⁷²⁶ *Janet Collins Interview*, *id.*

⁷²⁷ N.Y. ELEC. LAW § 11-203(1) (McKinney 2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for New York UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagNY.pdf> (last visited Mar. 7, 2012) [hereinafter *NY FVAP Instructions*].

⁷²⁸ *Id.*

⁷²⁹ N.Y. ELEC. LAW § 11-203(2) (McKinney 2011).

⁷³⁰ *NY FVAP Instructions*, *supra* note 727; E-mail Interview with Anna Svizzero, Dir. Of Operations, N.Y. State Bd. of Elections (Feb. 10, 2012) (on file with Verified Voting) [hereinafter *Anna Svizzero Interview*]. *See also id.*

⁷³¹ E-mail Interview with Carolyn Elkins, Deputy Election Commissioner, Schuyler Cnty. (Apr. 25, 2012) (on file with Verified Voting); Telephone Interview, Dick Work, Commissioner, Ulster Cnty. (Apr. 25, 2012) (on file with Verified Voting) [hereinafter *Dick Work Interview*]; Telephone Interview with Helen Kiggins Walsh, Republican Commissioner of Elections, Onondaga Cnty. (May 9, 2012) (on file with Verified Voting) [hereinafter *Helen Kiggins Walsh Interview*].

⁷³² *Dick Work Interview*, *id.*

⁷³³ *Id.*

⁷³⁴ N.C. GEN. STAT. §§ 163-258.7(c), .258.9(b) (2012); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for North Carolina UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagNC.pdf> (last visited Mar. 8, 2012) [hereinafter *NC FVAP Instructions*].

⁷³⁵ N.C. GEN. STAT. § 163-258.9(b) (2012).

⁷³⁶ *NC FVAP Instructions*, *supra* note 734.

⁷³⁷ *Deborah Formyduval Interview* and *Doyle Teague Interview*, *supra* note 301; Telephone Interview with Joseph Sedrowitz, Absentee-by-Mail Coordinator, Durham Cnty. (Apr. 24, 2012) (on file with Verified Voting) [hereinafter *Joseph Sedrowitz Interview*].

⁷³⁸ *Joseph Sedrowitz Interview*, *id.*

⁷³⁹ *Id.*; N.C. GEN. STAT. § 163-258.10 (2012); *Johnnie McLean Interview*, *supra* note 306.

⁷⁴⁰ N.C. GEN. STAT. § 163-258.10 (2012).

⁷⁴¹ N.D. CENT. CODE ANN. §§ 16.1-07-06(2), (3), -20(3), -21(2), -23(2) (West 2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for North Dakota UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagND.pdf> (last visited Mar. 8, 2012) [hereinafter *ND FVAP Instructions*].

⁷⁴² *ND FVAP Instructions*, *id.*

⁷⁴³ *Id.*; N.D. CENT. CODE ANN. § 16.1-07-24 (West 2011).

⁷⁴⁴ E-mail Interview with Jim Silrum, Deputy Sec'y of State, N. Dak. (Dec. 7, 2011) (on file with Verified Voting) [hereinafter *Jim Silrum Interview*].

⁷⁴⁵ N.D. CENT. CODE ANN. § 16.1-07-29(2) (West 2011).

⁷⁴⁶ N.D. CENT. CODE ANN. § 16.1-07-29(2) (West 2011).

⁷⁴⁷ E-mail Interview with Kevin Glatt, Cnty. Election Official, Burleigh Cnty. (Mar. 21, 2012) (on file with Verified Voting) [hereinafter *Kevin Glatt Interview*]; E-mail Interview with Michael Montplaisir, Cass Cnty. Auditor (Mar. 27, 2012) (on file with Verified Voting) [hereinafter *Michael Montplaisir Interview*]; E-mail Interview with Val McCloud, Rolette Cnty. Auditor (Mar. 23, 2012) (on file with Verified Voting) [hereinafter *Val McCloud Interview*].

⁷⁴⁸ *Michael Montplaisir Interview*, *id.*

⁷⁴⁹ OHIO REV. CODE ANN. §§ 3511.02(A)(11)-(13), .04(B) (West 2011); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Ohio UOCAVA Voters*, available at

<http://www.fvap.gov/resources/media/vagOH.pdf> (last visited Mar. 9, 2012) [hereinafter *OH FVAP Instructions*].

⁷⁵⁰ OHIO REV. CODE ANN. §§ 3511.02(A)(11)-(13), .04(B) (West 2011).

⁷⁵¹ *OH FVAP Instructions*, *supra* note 749.

⁷⁵² *Id.*; OHIO REV. CODE ANN. § 3511.05 (West 2011); *see also* Military Ready-to-Vote, Questions and Answers, available at <http://www.sos.state.oh.us/SOS/omv/MRV/QandA.aspx> (last visited Mar. 9, 2012) (“Voted absentee ballots cannot be returned electronically.”)

⁷⁵³ *Matthew Masterson Interview*, *supra* note 321; *Linda Stutz Interview* and *Sue Donohoe Interview*, *supra* note 317.

⁷⁵⁴ *Steve Harsman Interview*, *supra* note 317.

⁷⁵⁵ *See* FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Oklahoma UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagOK.pdf> (last visited Jan. 14, 2012).

⁷⁵⁶ *Id.*

⁷⁵⁷ E-mail Interview with Fran Roach, Asst. Sec’y, Oklahoma State Election Bd. (Jan. 17, 2012) [hereinafter *Fran Roach Interview*].

⁷⁵⁸ E-mail Interview with Shelly Boggs, Asst. Sec’y, Tulsa Cnty. Election Bd. (Mar. 28, 2012) (on file with Verified Voting) [hereinafter *Shelly Boggs Interview*].

⁷⁵⁹ Telephone Interview with Carol Leaming, Asst. Sec’y, Kay Cnty. Election Bd. (Apr. 10, 2012) (on file with Verified Voting) [hereinafter *Carol Learning Interview*].

⁷⁶⁰ Telephone Interview with Trena Whitson, Chief Clerk, Ellis Cnty. Election Bd. (Apr. 10, 2012) (on file with Verified Voting) [hereinafter *Trena Whitson Interview*].

⁷⁶¹ *Carol Learning Interview*, *supra* note 759; *Trena Whitson Interview*, *id.*

⁷⁶² FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Oregon UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagOR.pdf> (last visited Mar. 10, 2012) [hereinafter *OR FVAP Instructions*].

⁷⁶³ *Id.*

⁷⁶⁴ *Id.*; Oregon Sec’y of State & the Oregon Ass’n of Cnty. Clerks, *Vote by Mail Procedures Manual* (2011) at 21, available at http://www.sos.state.or.us/elections/vbm/vbm_manual.pdf [hereinafter *Oregon Procedures Manual*].

⁷⁶⁵ E-mail Interview with the Oregon Sec’y of State’s office (Apr. 4, 2012) (on file with Verified Voting); Telephone Interview with Steve Kindred, Elections Manager, Clackamas Cnty. (Apr. 6, 2012) (on file with Verified Voting) [hereinafter *Steve Kindred Interview*]; Email Interview with James Morales, Cnty. Clerk, Benton Cnty. (Apr. 9, 2012) (on file with Verified Voting) [hereinafter *James Morales Interview*]; Telephone Interview with Jenine McDermid, Cnty. Clerk, Sherman Cnty. (Apr. 12, 2012) (on file with Verified Voting) [hereinafter *Jenine McDermid Interview*].

⁷⁶⁶ OREGON SEC’Y OF STATE ELECTIONS DIVISION, FACSIMILE OR ELECTRONIC MAIL VOTE SECRET BALLOT WAIVER FORM, http://oregonvotes.org/doc/publications/forms/500_nvra/SEL531.pdf (last visited Mar. 10, 2012) [hereinafter *OR Secret Ballot Waiver*].

⁷⁶⁷ *OR FVAP Instructions*, *supra* note 762; OREGON SEC’Y OF STATE, VOTER REGISTRATION FREQUENTLY ASKED QUESTIONS, <http://oregonvotes.org/pages/faq/index.html> (last visited Mar. 10, 2012) (“Oregon does not have online voting at this time.”)

⁷⁶⁸ *OR Secret Ballot Waiver*, *supra* note 766; E-mail Interview with Brenda Bayes, Deputy Dir., Elections Div., Oregon Sec’y of State (Dec. 29, 2011) (on file with Verified Voting) [hereinafter *Brenda Bayes Interview*].

⁷⁶⁹ *Brenda Bayes Interview*, *id.*

⁷⁷⁰ *Steve Kindred Interview*, *supra* note 765.

⁷⁷¹ *Steve Kindred Interview*, *James Morales Interview* and *Jenine McDermid Interview*, *supra* note 765.

⁷⁷² *EAC SIV Report*, *supra* note 439, at 27.

⁷⁷³ *Id.*

⁷⁷⁴ *Id.*

⁷⁷⁵ 25 PA. CONS. STAT. ANN. §3146.2(c) (West, WestLaw through 2011 Legis. Sess.); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Pennsylvania UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagPA.pdf> (last visited Mar. 12, 2012) [hereinafter *PA FVAP Instructions*]; *see also* Overseas Civilian Voter, VOTESPA.ORG, http://www.votespa.com/portal/server.pt/community/residents_with_unique_voting_needs/14311/overseas_civilian_voter/592065 (last visited Jan. 4, 2012).

⁷⁷⁶ *Id.*

⁷⁷⁷ *PA FVAP Instructions*, *supra* note 775.

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- ⁷⁷⁸ *Id.*
- ⁷⁷⁹ *Shauna Clemmer Interview*, *supra* note 331.
- ⁷⁸⁰ *Florence Ball Interview and Stephanie Singer and Greg Irving Interviews*, *supra* note 329.
- ⁷⁸¹ *Cheryl Kayrol Interview*, *supra* note 329.
- ⁷⁸² R.I. GEN. LAWS § 17-20-6.1(e) (West, WestLaw through 2011 Legis. Sess.); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Rhode Island UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagRI.pdf> (last visited Mar. 14, 2012) [hereinafter *RI FVAP Instructions*].
- ⁷⁸³ *RI FVAP Instructions*, *id.*
- ⁷⁸⁴ E-mail Interview with Michael Narducci, Deputy Dir. Of Elections Div., Office of the R.I. Sec’y of State (Jan. 9, 2012) (on file with Verified Voting) [hereinafter *Michael Narducci Interview*].
- ⁷⁸⁵ *Id.*
- ⁷⁸⁶ R.I. GEN. LAWS § 17-20-6.1(e) (West, WestLaw through 2011 Legis. Sess.).
- ⁷⁸⁷ *Michael Narducci Interview*, *supra* note 784.
- ⁷⁸⁸ E-mail Interview with Miguel Nuñez, Rhode Island Board of Elections (Apr. 23, 2012) (on file with Verified Voting) [hereinafter *Miguel Nuñez Interview*].
- ⁷⁸⁹ South Carolina State Election Commission, Absentee Voting, available at http://www.scvotes.org/2009/10/15/absentee_voting (last visited Mar. 14, 2012).
- ⁷⁹⁰ S.C. CODE ANN. § 7-15-460 (West, WestLaw through 2011 Legis. Sess.); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for South Carolina UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagSC.pdf> (last visited Mar. 14, 2012) [hereinafter *SC FVAP Instructions*].
- ⁷⁹¹ *SC FVAP Instructions*, *id.*
- ⁷⁹² *Id.*; S.C. CODE ANN. § 7-15-460 (West, WestLaw through 2011 Legis. Sess.); E-mail Interview with Chris Whitmire, Dir. of Public Information & Training, S. Car. State Election Commission (Jan. 16, 2012) (on file with Verified Voting) [hereinafter *Chris Whitmire Interview*].
- ⁷⁹³ South Carolina State Election Commission, Military and Overseas Citizens, available at http://www.scvotes.org/2008/08/11/military_overseas_citizens (last visited Mar. 14, 2012); FVAP Instructions for Electronic transmission, available at <http://www.fvap.gov/FPCA/fpca-sc.html> (last visited Mar. 14, 2012); *Chris Whitmire Interview*, *supra* note 792.
- ⁷⁹⁴ *Suffie Jennings Interview*, *Joy Brooks Interview*, and *Joseph Debney Interview*, *supra* note 356.
- ⁷⁹⁵ *Joseph Debney Interview*, *supra* note 356.
- ⁷⁹⁶ *EAC SIV Report*, *supra* note 439, at 34.
- ⁷⁹⁷ S.D. CODIFIED LAWS § 12-19-2.3 (West, WestLaw through 2011 Legis. Sess.); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for South Dakota UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagSD.pdf> (last visited Mar. 15, 2012) [hereinafter *SD FVAP Instructions*]. See also S. Dak. Sec’y of State, Military and Overseas Citizen Web Portal, available at <http://apps.sd.gov/applications/st25cers/st23login.aspx> (last visited Mar. 15, 2012).
- ⁷⁹⁸ *SD FVAP Instructions*, *id.*
- ⁷⁹⁹ *Id.*; S.D. CODIFIED LAWS § 12-19-2.5 (West, WestLaw through 2011 Legis. Sess.); See also S.D. CODIFIED LAWS § 12-19-3 (West, WestLaw through 2011 Legis. Sess.).
- ⁸⁰⁰ Telephone Interview with Paula Jones, Conty Auditor, Yankton Cnty. (May 10, 2012) (on file with Verified Voting) [hereinafter *Paula Jones Interview*]; E-mail Interview with Shellie Baumgart, Finance Officer/Auditor, Hughes Cnty (May 9, 2012) (on file with Verified Voting) [hereinafter *Shellie Baumgart Interview*]; E-mail Interview with Bob Litz, Cnty. Auditor, Minnehaha Cnty. (Apr. 2, 2012) (on file with Verified Voting) [hereinafter *Bob Litz Interview*].
- ⁸⁰¹ TENN. CODE ANN. §§ 2-6-202(a)(3), (b), -309 (West, WestLaw through 2011 Legis. Sess.).
- ⁸⁰² TENN. CODE ANN. § 2-6-503 (a) (West, WestLaw through 2011 Legis. Sess.); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Tennessee UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagTN.pdf> (last visited Mar. 15, 2012) [hereinafter *TN FVAP Instructions*].
- ⁸⁰³ *TN FVAP Instructions*, *id.*
- ⁸⁰⁴ *Id.*; TENN. CODE ANN. § 2-6-502 (West, WestLaw through 2011 Legis. Sess.).
- ⁸⁰⁵ *Tre Hargett Interview*, *supra* note 367.
- ⁸⁰⁶ TEX. ELEC. CODE ANN § 84.007(b)(3) (West, WestLaw through 2011 Legis. Sess.).
- ⁸⁰⁷ TEX. ELEC. CODE ANN § 86.003(a) (West, WestLaw through 2011 Legis. Sess.).
- ⁸⁰⁸ TEX. ELEC. CODE ANN § 86.006 (West, WestLaw through 2011 Legis. Sess.).

⁸⁰⁹ *Patricia McGowan Interview*, *supra* note 378.

⁸¹⁰ FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Texas UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagTX.pdf> (last visited Mar. 17, 2012) [hereinafter *TX FVAP Instructions*]; Texas Sec’y of State, Military and Overseas Voting, available at http://votexas.org/military_overseas.html (last visited Mar. 17, 2012) [hereinafter *TX UOCAVA Instructions*].

⁸¹¹ *TX UOCAVA Instructions*, *id.*

⁸¹² *TX FVAP Instructions*, *supra* note 810.

⁸¹³ *Patricia McGowan Interview*, *supra* note 378; Telephone Interview with Rolanda Ramirez, Early Voting Coordinator, Tarrant Cnty. (Apr. 5, 2012) (on file with Verified Voting) [hereinafter *Rolanda Ramirez Interview*].

⁸¹⁴ *Glenda Denton Interview*, *supra* note 378.

⁸¹⁵ TEX. ELEC. CODE ANN §105.001 (West, WestLaw through 2011 Legis. Sess.); *TX FVAP Instructions*, *supra* note 810.

⁸¹⁶ *TX UOCAVA Instructions*, *supra* note 810.

⁸¹⁷ *Patricia McGowan Interview*, *supra* note 378; *Rolanda Ramirez Interview*, *supra* note 813.

⁸¹⁸ *Patricia McGowan Interview*, *supra* note 378.

⁸¹⁹ TEX. ELEC. CODE ANN §105.001(b)(2) (West, WestLaw through 2011 Legis. Sess.).

⁸²⁰ TEX. ELEC. CODE ANN §105.001(c) (West, WestLaw through 2011 Legis. Sess.); *Patricia McGowan Interview* and *Rolanda Ramirez Interview*, *supra* note 813.

⁸²¹ TEX. ELEC. CODE ANN §106.002 (West, WestLaw through 2011 Legis. Sess.).

⁸²² *Id.*

⁸²³ Astronauts beam votes home (Nov. 2, 2010) available at <http://politicalticker.blogs.cnn.com/2010/11/02/astronauts-beam-votes-home/>

⁸²⁴ *Id.*

⁸²⁵ UTAH CODE ANN. §§ 20A-16.401(b), 403(2)(a) (West, WestLaw through 2011 Legis. Sess.); *see also* § 20A-16.302(1) (West, WestLaw through 2011 Legis. Sess.); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Utah UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagUT.pdf> (last visited Mar. 17, 2012) [hereinafter *UT FVAP Instructions*].

⁸²⁶ UTAH CODE ANN. § 20A-16-403(2)(a)(iii) (West, WestLaw through 2011 Legis. Sess.).

⁸²⁷ *UT FVAP Instructions*, *supra* note 825.

⁸²⁸ *Id.*; UTAH CODE ANN. § 20A-16-404(2) (West, WestLaw through 2011 Legis. Sess.); *see also* E-mail Interview with Justin Lee, Election Specialist, Office of the Utah Lieutenant Governor (Nov. 23, 2011) (on file with Verified Voting) [hereinafter *Justin Lee Interview*].

⁸²⁹ UTAH CODE ANN. § 20A-16-501(2) (West, WestLaw through 2011 Legis. Sess.).

⁸³⁰ *Amber Miller Interview*, *Norma Brunson Interview* and *Marla Young Interview*, *supra* note 395.

⁸³¹ *Amber Miller Interview*, *supra* note 395.

⁸³² UTAH CODE ANN. § 20A-6-103 (West, WestLaw through 2011 Legis. Sess.).

⁸³³ *Amber Miller Interview*, *Norma Brunson Interview* and *Marla Young Interview*, *supra* note 395.

⁸³⁴ FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Vermont UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagVT.pdf> (last visited Mar. 18, 2012) [hereinafter *VT FVAP Instructions*]; *See also* VT. STAT. ANN. tit. 17 §§ 2532(b), 2549 (West, WestLaw through 2011 Legis. Sess.).

⁸³⁵ *VT FVAP Instructions*, *supra* note 825.

⁸³⁶ *Id.*; **VT. SEC’Y OF STATE**, *Military and Overseas Voting for Vermont*, available at <http://vermont-elections.org/elections1/militaryoverseas.htm> (last visited Oct. 9, 2011).

⁸³⁷ Telephone Interview with Donna Kinville, City Clerk, Burlington; Chittenden Cnty. (May 22, 2012) (on file with Verified Voting) [hereinafter *Donna Kinville Interview*]; Telephone Interview with Carol Richards, Town Clerk, West Haven; Rutland Cnty. (May 23, 2012) (on file with Verified Voting) [hereinafter *Carol Richards Interview*].

⁸³⁸ Telephone Interview with Valerie Bourgois, Town Clerk, Bridport, Addison Cnty. (May 23, 2012) (on file with Verified Voting) [hereinafter *Valerie Bourgois Interview*].

⁸³⁹ Vermont Sec’y of State office website, Message from the Sec’y, Vol. 12. Num. 13, http://www.sec.state.vt.us/secdesk/Opinions/2010/Mar_2010.html

⁸⁴⁰ VA, CODE ANN. § 24.2-701(B)(2) (West, WestLaw through 2011 Legis. Sess.).

⁸⁴¹ VA, CODE ANN. § 24.2-706 (West, WestLaw through 2011 Legis. Sess.).

⁸⁴² VA, CODE ANN. § 24.2-707 (West, WestLaw through 2011 Legis. Sess.).

⁸⁴³ FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Virginia UOCAVA voters*, available at <http://www.fvap.gov/resources/media/vagVA.pdf> (last visited Mar. 18, 2012) [hereinafter *VA FVAP*

Instructions]; see also “Guideline for voters that request email ballot” at http://www.sbe.virginia.gov/cms/Absentee_Voting/Military_Overseas_Citizens/Index.html [hereinafter *VA Guidance for UOCAVA Voters*].

⁸⁴⁴ *VA FVAP Instructions*, *id.*

⁸⁴⁵ *Id.*; VA, CODE ANN. § 24.2-707 (West, WestLaw through 2011 Legis. Sess.).

⁸⁴⁶ *VA FVAP Instructions*, *supra* note 843; *VA Guidance for UOCAVA Voters*, *supra* note 843.

⁸⁴⁷ *Diana Dutton Interview*, *supra* note 413.

⁸⁴⁸ *Bobbi Morgan Interview*, *supra* note 417.

⁸⁴⁹ *Susan Lee Interview*, *supra* note 409.

⁸⁵⁰ E-mail Interview with Sheryl Moss, Office of the Wash. Sec’y of State, Dec. 1, 2011) (on file with Verified Voting) [hereinafter *Sheryl Moss Interview*].

⁸⁵¹ WASH. ADMIN. CODE ANN. 434-235-030(1), (2) (2012); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Washington UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagWA.pdf> (last visited Mar. 24, 2012) [hereinafter *WA FVAP Instructions*].

⁸⁵² WASH. ADMIN. CODE ANN. 434-235-030(2) (2012); *WA FVAP Instructions*, *id.*

⁸⁵³ WASH. ADMIN. CODE ANN. 434-235-010(3)(b), -030(1) (2012); *WA FVAP Instructions*, *supra* note 851.

⁸⁵⁴ *Sheryl Moss Interview*, *supra* note 850.

⁸⁵⁵ WASH. ADMIN. CODE ANN. 434-235-030(3) (2012).

⁸⁵⁶ Telephone Interview Garth Fell, Election Manager, Snohomish Cnty. (May 9, 2012) (on file with Verified Voting) [hereinafter *Garth Fell Interview*]; Telephone Interview with Mila Jury, Certified Election Admin. Chief Deputy, Okanogan Cnty. (May 9, 2012) (on file with Verified Voting) [hereinafter *Mila Jury Interview*].

⁸⁵⁷ Telephone Interview with Carolyn Myers, Elections Supervisor, Cowlitz Cnty. (May 17, 2012) (on file with Verified Voting) [hereinafter *Carolyn Myers Interview*].

⁸⁵⁸ *Garth Fell Interview*, *supra* note 856.

⁸⁵⁹ Telephone Interview with Garth Fell, Election Manager, Snohomish Cnty. (May 23, 2012) (on file with Verified Voting).

⁸⁶⁰ *Mila Jury Interview*, *supra* note 856.

⁸⁶¹ See <http://apps.leg.wa.gov/billinfo/summary.aspx?bill=1624&year=2009>

⁸⁶² *Mila Jury Interview*, *supra* note 856.

⁸⁶³ W. VA. CODE ANN. § 3-3-5(e)(2) (West, WestLaw through 2011 Legis. Sess.); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for West Virginia UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagWV.pdf> (last visited Mar. 24, 2012) [hereinafter *WV FVAP Instructions*].

⁸⁶⁴ *Id.*

⁸⁶⁵ *WV FVAP Instructions*, *id.*; W. VA. CODE ANN. § 3-3-5(f)(2) (West, WestLaw through 2011 Legis. Sess.).

⁸⁶⁶ W. VA. CODE ANN. § 3-3-5(f)(2) (West, WestLaw through 2011 Legis. Sess.).

⁸⁶⁷ W. VA. CODE ANN. § 3-3-5(i) (West, WestLaw through 2011 Legis. Sess.).

⁸⁶⁸ *Marylou Myers Interview* and *Brian Wood Interview*, *supra* note 427.

⁸⁶⁹ *Brian Wood Interview*, *supra* note 427.

⁸⁷⁰ *Id.*

⁸⁷¹ W. VA. CODE ANN. § 3-3B (West, WestLaw through 2011 Legis. Sess.).

⁸⁷² See The West Virginia Sec’y of State’s website at <http://www.sos.wv.gov/news/topics/elections-candidates/Pages/WestVirginia'sInternetVotingPilotProgramFeaturedInPewCenterNewsletter.aspx> [hereinafter *WV SOS Internet Pilot Report*].

⁸⁷³ *EAC SIV Report*, *supra* note 439, at 32, 33.

⁸⁷⁴ *Id.* at 32.

⁸⁷⁵ *WV SOS Internet Pilot Report*, *supra* note 872.

⁸⁷⁶ *EAC SIV Report*, *supra* note 439, at 32.

⁸⁷⁷ W. VA. CODE ANN. § 3-3B-4(3)(B) (West, WestLaw through 2011 Legis. Sess.).

⁸⁷⁸ W. VA. CODE ANN. § 3-3B-4(6)(C) (West, WestLaw through 2011 Legis. Sess.).

⁸⁷⁹ W. VA. CODE ANN. § 3-3B-4(7)(C)(i) (West, WestLaw through 2011 Legis. Sess.).

⁸⁸⁰ *Dave Nichols Interview*, *supra* note 431.

⁸⁸¹ WIS. STAT. ANN. §§ 6.86(1)(a)(6), (1)(ac) (West, WestLaw through 2011 Legis. Sess.).

⁸⁸² WIS. STAT. ANN. § 6.22(2)(e) (West, WestLaw through 2011 Legis. Sess.); see also FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Wisconsin UOCAVA Voters*, available at

<http://www.fvap.gov/resources/media/vagWI.pdf> (last visited Mar. 25, 2012) [hereinafter *WI FVAP Instructions*].

⁸⁸³ *WI FVAP Instructions*, *id.*

⁸⁸⁴ *Id.*; WIS. STAT. ANN. § 6.22(5) (West, WestLaw through 2011 Legis. Sess.); State of Wisconsin Gov't Accountability Bd., *Facts about Military and Overseas Voting in Wisconsin*, at <http://gab.wi.gov/elections-voting/voters/military-overseas/facts>.

⁸⁸⁵ Telephone Interview with Lisa Weiner, Cnty. Clerk, Milwaukee Cnty. (June 12, 2012) (on file with Verified Voting) [hereinafter *Lisa Weiner Interview*]; Telephone Interview with Kim Pytleski, Cnty. Clerk, Oconto Cnty. (June 12, 2012) (on file with Verified Voting) [hereinafter *Kim Pytleski Interview*]; Telephone Interview with Chris Teske, Green Bay City Clerk, Brown Cnty. (June 12, 2012) (on file with Verified Voting) [hereinafter *Chris Teske Interview*].

⁸⁸⁶ See The State of Wisconsin Gov't Accountability Bd., *2009-2014 Wisconsin Election Administration Plan*, at <http://gab.wi.gov/publications/reports/five-year-election-administration-plan>

⁸⁸⁷ *Id.*

⁸⁸⁸ Wyo. Sec'y of State's website, *Absentee Voting Information*, available at <http://soswy.state.wy.us/Elections/AbsenteeVoting.aspx> (last visited Mar. 25, 2012); *see also* WYO. STAT. ANN. §§ 22-9-104, -107, -113 (2011).

⁸⁸⁹ See Wyoming Sec'y of State's instructions for "Absentee Ballot Request," available at http://soswy.state.wy.us/Elections/MOVE_Absentee_Request.aspx (last visited Jan. 14, 2012); FED. VOTING ASSISTANCE PROGRAM, *Voting Assistance Guide for Wyoming UOCAVA Voters*, available at <http://www.fvap.gov/resources/media/vagWY.pdf> (last visited Mar. 25, 2012) [hereinafter *WY FVAP Instructions*]; Telephone Interview with Hans Odde, Cnty. Clerk, Hot Springs Cnty. (Apr. 10, 2012) (on file with Verified Voting) [hereinafter *Hans Odde Interview*]; Telephone Interview with Amanda Hutchinson, Uinta Cnty., First Deputy & Elections Dir. (Apr. 4, 2012) (on file with Verified Voting) [hereinafter *Amanda Hutchinson Interview*]; Telephone Interview with Chris Lindsey, Natron Cnty. Elections Deputy Clerk (Apr. 4, 2012) (on file with Verified Voting) [hereinafter *Chris Lindsey Interview*].

⁸⁹⁰ *WY FVAP Instructions*, *id.*

⁸⁹¹ E-mail Interview with Peggy Nighswonger, CERA, State Election Dir., Sec'y of State (July 9, 2012) (on file with Verified Voting).

⁸⁹² *Id.*; WYO. STAT. ANN. § 22-9-113 (2011); *see also* E-Mail Interview with Lori Klassen, Election Specialist, Wyo. Sec'y of State's Office (Jan. 9, 2012) [hereinafter *Lori Klassen Interview*]; *Hans Odde Interview*, *Amanda Hutchinson Interview*, and *Chris Lindsey Interview*, *supra* note 889.

⁸⁹³ P.B. STARK AND D.A. WAGNER, EVIDENCE BASED ELECTIONS, available at <http://statistics.berkeley.edu/~stark/Preprints/evidenceVote12.pdf> (last visited July 4, 2012).

⁸⁹⁴ LAWRENCE NORDEN ET AL., THE MACHINERY OF DEMOCRACY: PROTECTING ELECTIONS IN AN ELECTRONIC WORLD (Brennan Center for Justice ed., 2006), available at http://www.brennancenter.org/dynamic/subpages/download_file_39288.pdf.

⁸⁹⁵ Mark Lindeman and Philip B. Stark, A Gentle Introduction to Risk-limiting Audits, available at <http://statistics.berkeley.edu/~stark/Preprints/gentle12.pdf> (last visited July 4, 2012)

⁸⁹⁶ STARK AND WAGNER, *supra* note 893.

⁸⁹⁷ See N.C. GEN. STAT. § 163-821.1(b) (2011).

⁸⁹⁸ See N.J. STAT. ANN. § 19:61-9 (West 2011); N.M. STAT. § 1-14-13 (West 2011); OR. REV. STAT. § 254.529(2)(a)-(c) (2011).

⁸⁹⁹ See N.J. STAT. ANN. § 19:61-9 (West 2011); *Robert Giles Interview*, *supra* note 59; *Shirley Manahan Interview*, *supra* note 279.

⁹⁰⁰ See *Post Election Risk-Limiting Audit Pilot Program 2011-2012*, available at <http://www.sos.ca.gov/voting-systems/oversight/risk-limiting-pilot.htm> (last visited Jan. 21, 2012) and Report to the Legislature Mar. 1, 2012 available at <http://www.sos.ca.gov/voting-systems/oversight/risk-pilot/report-to-legislature-3-1-12.pdf>.

⁹⁰¹ *Id.*

⁹⁰² Results of GAO's Testing of Voting Systems Used in Sarasota Cnty. in Florida's 13th Congressional District, U.S. Gov't Accountability Office, Feb. 8, 2008, available at <http://www.gao.gov/assets/90/82331.pdf> (last visited June 28, 2012).

⁹⁰³ *Id.*

⁹⁰⁴ *Id.*

⁹⁰⁵ *Id.*

- ⁹⁰⁶ See ARIZ. REV. STAT. ANN. § 16-602 (West, Westlaw through 2011); Joe Kanefield, Ariz. Election Dir., Address at the Meeting of the National Association of Secretaries of State in Washington, D.C. (Feb. 8, 2007).
- ⁹⁰⁷ Telephone Interview with Karen Osborne, Dir., Maricopa Cnty. Elections Div. (Feb. 1, 2012) (on file with Verified Voting).
- ⁹⁰⁸ Telephone Interview with Allen Tempert, Dir., Mohave Cnty. Elections (Jan. 29, 2012) (on file with Verified Voting) [hereinafter *Allen Tempert Interview*].
- ⁹⁰⁹ COLO. REV. STAT. ANN. § 1-7-514 (West, Westlaw current through 2011).
- ⁹¹⁰ COLO. REV. STAT. ANN. § 1-7-515 (West, Westlaw current through 2011).
- ⁹¹¹ See, e.g., Boulder Cnty. election results by year, including audit results for 2009, 2010 and 2011, *available at* <http://www.bouldercounty.org/government/elections/pages/electionresults2011.aspx> (last visited Jan. 22, 2012); Saguache Cnty. General Post Election Audit 2010, *available at* http://www.saguachecounty.net/images/stories/docs/clerk/election2010/Post_Election_Audit_2010.pdf (last visited Jan. 22, 2012).
- ⁹¹² *Patty Berger Interview*, *Diane Folowell Interview* and *Beth Cumming Interview*, *supra* note 105.
- ⁹¹³ COLO. REV. STAT. ANN. § 1-7-515(3) (West, Westlaw current through 2011).
- ⁹¹⁴ See Boulder Cnty. 2010 General Election Risk-Limiting Audit - Cnty. Coroner race, *available at* <http://bcn.boulder.co.us/~neal/elections/boulder-audit-10-11/> (last visited Jan. 22, 2012).
- ⁹¹⁵ *Wayne Munster Interview*, *supra* note 514.
- ⁹¹⁶ COLO. REV. STAT. ANN. § 1-7-515(2)(a) (West, Westlaw current through 2011).
- ⁹¹⁷ L&A and Post-Election Audit Grant Winners, *available at* http://www.eac.gov/payments_and_grants/la_and_postelection_audit_grant_winners.aspx (last visited Jan. 22, 2012).
- ⁹¹⁸ CONN. GEN. STAT. § 9-320f(i) (West, Westlaw through 2011 June Sp. Sess.).
- ⁹¹⁹ CONN. GEN. STAT. § 9-320f(a) (West, Westlaw through 2011 June Sp. Sess.).
- ⁹²⁰ CONN. GEN. STAT. § 9-320f(b) (West, Westlaw through 2011 June Sp. Sess.).
- ⁹²¹ CONN. GEN. STAT. § 9-320f (West, Westlaw through 2011 June Sp. Sess.).
- ⁹²² *Peggy Reeves Interview*, *supra* note 526.
- ⁹²³ D.C. MUN. REGS. tit. 3, § 812.2 (West, Westlaw through Dec. 2011).
- ⁹²⁴ *Alysoun McLaughlin Interview*, *supra* note 541.
- ⁹²⁵ D.C. MUN. REGS. tit. 3, § 812.6 (West, Westlaw through Dec. 2011).
- ⁹²⁶ *Id.* at subpara. 812.5.
- ⁹²⁷ *Id.* at subpara. 812.20; *see also Alysoun McLaughlin Interview*, *supra* note 541.
- ⁹²⁸ D.C. MUN. REGS. tit. 3, § 812.15 (West, Westlaw through Dec. 2011).
- ⁹²⁹ *Id.* at subpara. 812.16.
- ⁹³⁰ *Id.* at subpara. 812.17.
- ⁹³¹ FLA. ADMIN. CODE r.1S-5.026(a), (b) (2011), providing in part that “[i]n the event that multiple municipal or other local elections are held on the same day in a county and the county canvassing board certifies the elections, one manual audit will cover all elections held on that day and all races involved in the elections shall be available for selection of the race and precincts;” *see also Gisela Salas Interview*, *supra* note 555.
- ⁹³² See FLA. STAT. ANN. § 101.591(1), (2), (4) (West, Westlaw through 2011 Legis. sess.); *see also* FLA. ADMIN. CODE r.1S-5.026(c) (2011), providing that “[i]f two percent of the precincts equals less than a whole number, the number of precincts to be audited shall be rounded up to the next whole number;” confirming that “neither the random selection nor the manual audit can occur until after the certification.” *See also Gisela Salas Interview*, *supra* note 555.
- ⁹³³ See HAW. REV. STAT. § 16-42 (West, Westlaw through 2011 Leg. sess.).
- ⁹³⁴ *Hoku F. Interview*, *supra* note 577.
- ⁹³⁵ See 10 ILL. COMP. STAT. 5/24B-15 (LexisNexis through Pub. Acts 97-619 of the 2011 Legis. Sess.).
- ⁹³⁶ 10 ILL. COMP. STAT. 5/24C-15 (LexisNexis through Pub. Acts 97-619 of the 2011 Legis. Sess.).
- ⁹³⁷ 10 ILL. COMP. STAT. 5/24B-2, 24B-15.1, 24C-2, 24C-15.1 (LexisNexis current through Pub. Acts 97-619 of the 2011 Legis. Sess.).
- ⁹³⁸ 10 ILL. COMP. STAT. 5/24B-15, 24C-15 (LexisNexis through Pub. Acts 97-619 of the 2011 Legis. Sess.).
- ⁹³⁹ IND. CODE ANN. § 3-11-13-37 IND. CODE §§ 3-12-3-11, -3.5-5 (LexisNexis through Act PL 231 of the 2011 First Legis. Sess.).
- ⁹⁴⁰ *Vance Pool Interview*, *supra* note 168; IND. CODE § 3-11-15-43 (LexisNexis through Act PL 231 of the 2011 First Legis. Sess.).

⁹⁴¹ IND. CODE § 3-11-15-43(b) requires each voting system to “produce a permanent paper record with a manual audit capacity for the system” and to “provide the voter with an opportunity to change the ballot or correct any error *before* the permanent paper record is produced” (emphasis supplied). In order for the paper record to be “voter verified,” the voter would have to be able to verify it and correct it *after* it is produced. An end-of-the-day machine print-out of the aggregate results satisfies the first clause of the foregoing requirement, and a voter being able to correct the “ballot” on the touch screen surface itself while voting satisfies the second clause, but neither of those is a “voter verified paper ballot.”

⁹⁴² IND. CODE § 3-11-15-43(c) requires only that the paper records “be made available” for recounts or contests.

⁹⁴³ IND. CODE ANN. § 3-11-13-38 IND. CODE §§ 3-12-3-11, -3.5-5 (LexisNexis through Act PL 231 of the 2011 First Legis. Sess.); *see also Vance Pool Interview*, *supra* note 168.

⁹⁴⁴ IND. CODE ANN. § 3-11-13-40 IND. CODE §§ 3-12-3-11, -3.5-5 (LexisNexis through Act PL 231 of the 2011 First Legis. Sess.); *see also Vance Pool Interview*, *supra* note 168.

⁹⁴⁵ IND. CODE ANN. § 3-11-13-38 IND. CODE §§ 3-12-3-11, -3.5-5 (LexisNexis through Act PL 231 of the 2011 First Legis. Sess.); *see also Vance Pool Interview*, *supra* note 168.

⁹⁴⁶ KY. REV. STAT. ANN. § 117.383(8) (2011) (enacted in 1986).

⁹⁴⁷ KY. REV. STAT. ANN. § 117.383(9) (2011).

⁹⁴⁸ *Maryellen Allen Interview*, *supra* note 194.

⁹⁴⁹ *Valerie Newell Interview*, *supra* note 198.

⁹⁵⁰ *Tracy Merriman Interview*, *supra* note 198.

⁹⁵¹ MO. CODE REGS. ANN. § tit. 15, § 30-10.110 (2011).

⁹⁵² *Chrissy Peters Interview*, *supra* note 680.

⁹⁵³ *Id.*

⁹⁵⁴ MO. CODE REGS. ANN. tit. 15, § 30-10.110 (2011).

⁹⁵⁵ *Id.*

⁹⁵⁶ *Chrissy Peters Interview*, *supra* note 680.

⁹⁵⁷ *Id.*

⁹⁵⁸ *See* MO. CODE REGS. ANN. tit. 15, § 30-10.110 (2011).

⁹⁵⁹ *See* MONT. CODE ANN. § 13-17-501 *et seq.* (West 2011).

⁹⁶⁰ MONT. CODE ANN. § 13-17-503(3) (West 2011).

⁹⁶¹ *Lisa Kimmet Interview*, *supra* note 690.

⁹⁶² MONT. CODE ANN. § 13-17-503(1) (West 2011); *Lisa Kimmet Interview*, *supra* note 690.

⁹⁶³ MONT. CODE ANN. § 13-17-503(2) (West 2011).

⁹⁶⁴ MONT. CODE ANN. §§ 13-15-206(3)-(4) (West 2011).

⁹⁶⁵ MONT. CODE ANN. § 13-17-505 (West 2011); *Lisa Kimmet Interview*, *supra* note 690.

⁹⁶⁶ MONT. CODE ANN. § 13-17-507 (West 2011); *Lisa Kimmet Interview*, *supra* note 690.

⁹⁶⁷ *Lisa Kimmet Interview*, *supra* note 690.

⁹⁶⁸ *See* NEV. ADMIN. CODE § 293.255 (2011); *Ryan High Interview*, *supra* note 254.

⁹⁶⁹ *See* NEV. ADMIN. CODE § 293.255 (2011).

⁹⁷⁰ *Ryan High Interview*, *supra* note 254.

⁹⁷¹ *Follow-up Ryan High Interview*, *supra* note 705.

⁹⁷² *See* N.J. STAT. ANN. § 19:61-9 (West 2011).

⁹⁷³ *See Robert Giles Interview*, *supra* note 59; *Shirley Manahan Interview*, *supra* note 279.

⁹⁷⁴ *Robert Giles Interview*, *supra* note 59; *Shirley Manahan Interview*, *supra* note 279.

⁹⁷⁵ *See* N.M. CODE ANN. § 1-10.23.9 (2008).

⁹⁷⁶ N.M. STAT. § 1-14-13.2(B) (West 2011).

⁹⁷⁷ E-mail Interview with Bobbie Shearer, Dir., Bureau of Elections, New Mexico Sec’y of State’s Office (May 17, 2012) (on file with Verified Voting).

⁹⁷⁸ N.M. STAT. § 1-14-13.2(B) (West 2011).

⁹⁷⁹ N.M. STAT. §§ 1-2-31, -14-13.2(F) (West 2011).

⁹⁸⁰ N.M. STAT. § 1-14-13.2(E) (West 2011).

⁹⁸¹ N.M. STAT. § 1-14-16(C) (West 2011).

⁹⁸² *See* N.Y. ELEC. LAW § 9-211 (McKinney 2011); *Anna Svizzero Interview*, *supra* note 730.

⁹⁸³ N.Y. Comp. Codes R. & Regs. tit. 9, § 6210.18(c)(3).

⁹⁸⁴ N.Y. Comp. Codes R. & Regs. tit. 9, § 6210.18(f)-(g).

⁹⁸⁵ *Id.*

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- ⁹⁸⁶ *Anna Svizzera Interview*, *supra* note 730.
- ⁹⁸⁷ *Dick Work Interview*, *supra* note 731.
- ⁹⁸⁸ N.Y. Comp. Codes R. & Regs. tit. 9, § 6210.18(h).
- ⁹⁸⁹ *Anna Svizzera Interview*, *supra* note 730.
- ⁹⁹⁰ *Id.*; N.Y. COMP CODES R. & REGS. tit. 9, § 6210.18(h) (WestWestlaw 2011).
- ⁹⁹¹ N.C. GEN. STAT. § 163-182.1(b)(1) (2011); *Johnnie McLean Interview*, *supra* note 306.
- ⁹⁹² *See* N.C. GEN. STAT. § 163-182.1(b)(1) (2011).
- ⁹⁹³ *See* Directive 2012-12: Post-Election Audits, *available at* <http://www.sos.state.oh.us/SOS/Upload/elections/directives/2012/Dir2012-12.pdf> (last visited Mar. 9, 2012) [hereinafter *OH 2012 Audit Directive*].
- ⁹⁹⁴ *Id.*
- ⁹⁹⁵ *Matthew Masterson Interview*, *supra* note 321.
- ⁹⁹⁶ *OH 2012 Audit Directive*, *supra* note 993, at 5.
- ⁹⁹⁷ OR. REV. STAT. § 254.529(2)(a)-(c) (2011).
- ⁹⁹⁸ OR. REV. STAT. § 254.529(5) (2011).
- ⁹⁹⁹ *Brenda Bayes Interview*, *supra* note 786.
- ¹⁰⁰⁰ *Id.*
- ¹⁰⁰¹ *Steve Kindred Interview* and *James Morales Interview*, *supra* note 765.
- ¹⁰⁰² *James Morales Interview*, *supra* note 765.
- ¹⁰⁰³ *See* OR. REV. STAT. § 254.529 (2011).
- ¹⁰⁰⁴ *See* 25 PA. CONS. STAT. ANN. § 3031.17 (West, WestLaw through 2011 Legis. Sess.); *see also* *Shauna Clemmer Interview*, *supra* note 331.
- ¹⁰⁰⁵ *Verified Voting Verifier, Pennsylvania*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?&ec=all&year=2010&state=Pennsylvania> (last visited Mar. 12, 2012).
- ¹⁰⁰⁶ *Shauna Clemmer Interview*, *supra* note 331.
- ¹⁰⁰⁷ *See* TENN. CODE ANN. § 2-20-103 (West, WestLaw through 2011 Legis. Sess.).
- ¹⁰⁰⁸ TENN. CODE ANN. § 2-20-103 (West, WestLaw through 2011 Legis. Sess.). *See also* *Tenn. Voter Confidence Act May Ve Delayed Again* (Mar. 8, 2011), <http://thevotingnews.com/state/tennessee/tn-voter-confidence-act-may-be-delayed-again-wsmv-nashville/>.
- ¹⁰⁰⁹ S.B. 1805 107th Gen. Assemb. (Tenn. 2011).
- ¹⁰¹⁰ *See* TEX. ELEC. CODE ANN. § 127.201(a), (g) (West, WestLaw through 2011 Legis. Sess.).
- ¹⁰¹¹ *Verified Voting Verifier, Texas*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?&ec=all&year=2010&state=Texas> (last visited Mar. 17, 2012).
- ¹⁰¹² *Elizabeth Winn Interview*, *supra* note 379.
- ¹⁰¹³ Office of the Utah Lieutenant Governor, Election Policy (Oct. 17, 2006) at 6.1 *available at* <http://verifiedvoting.org/downloads/UTAudit.pdf>.
- ¹⁰¹⁴ *Id.* at 6.3.
- ¹⁰¹⁵ *Id.* at 6.2.2.
- ¹⁰¹⁶ *Id.* at 6.5.5.
- ¹⁰¹⁷ *Justin Lee Interview*, *supra* note 828.
- ¹⁰¹⁸ *Amber Miller Interview*, *supra* note 395.
- ¹⁰¹⁹ *Norma Brunson Interview*, *supra* note 395.
- ¹⁰²⁰ VT. STAT. ANN. tit. 17, § 2493(a)(2) (West, WestLaw through 2011 Legis. Sess.); E-mail Interview with Kathleen Scheele, Dir. of Elections and Campaign Finance, Vt. Sec'y of State's Office (Nov. 28, 2011) (on file with Verified Voting) [hereinafter *Kathleen Scheele Interview*].
- ¹⁰²¹ E-mail Interview with Kathleen Scheele, Dir. of Elections and Campaign Finance, Vt. Sec'y of State's Office (May 23, 2012) (on file with Verified Voting).
- ¹⁰²² *See* Vt, Sec'y of State, 2008 Election Information, 2008 Random Audits of vote tabulator... *available at* http://vermont-elections.org/elections1/2008_election_info.html
- ¹⁰²³ *See* VT Election Audit, ABC22, (Dec. 7, 2010, 11:00 PM), <http://www.abc22.com/Global/story.asp?S=13591221> and VT. SEC'Y OF STATE, *Details of General Election Audit Procedures for 2010* (2010), *available at* http://www.vermont-elections.org/elections1/election_info.html
- ¹⁰²⁴ *Kathleen Scheele Interview*, *supra* note 1020.
- ¹⁰²⁵ *Donna Kinville Interview*, *supra* note 837.

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- ¹⁰²⁶ *Valerie Bourgois Interview*, *supra* note 838; *Carol Richards Interview*, *supra* note 837.
- ¹⁰²⁷ VA. CODE ANN. § 24.2-671.1 (West, WestLaw through 2011 Legis. Sess).
- ¹⁰²⁸ *Id.*
- ¹⁰²⁹ See J. Legis. Audit and Review Comm’n, *Review of Post-election Audits of Voting Equipment*, <http://jlarc.state.va.us/meetings/June10/VoteAuditbrf.pdf>.
- ¹⁰³⁰ *Id.*
- ¹⁰³¹ *Diana Dutton Interview*, *supra* note 413.
- ¹⁰³² *Sheryl Moss Interview*, *supra* note 850.
- ¹⁰³³ See WASH. REV. CODE ANN. §§ 29A.60.185, 29A.12.150 (West, WestLaw through 2011 Legis. Sess).
- ¹⁰³⁴ *Sheryl Moss Interview*, *supra* note 850.
- ¹⁰³⁵ *Garth Fell Interview* and *Mila Jury Interview*, *supra* note 656.
- ¹⁰³⁶ *Carolyn Myers Interview*, *supra* note 857.
- ¹⁰³⁷ W. VA. CODE ANN. § 3-4A-28(d) (West, WestLaw through 2011 Legis. Sess.).
- ¹⁰³⁸ *Verified Voting Verifier*, *West Virginia*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?ec=all&year=2010&state=West%20Virginia> (last visited Mar. 24, 2012).
- ¹⁰³⁹ W. VA. CODE ANN. § 3-4A-28 (d) (West, WestLaw through 2011 Legis. Sess.).
- ¹⁰⁴⁰ *Bonnie Woodfall Interview*, *supra* note 427.
- ¹⁰⁴¹ *Brian Wood Interview*, *supra* note 427.
- ¹⁰⁴² *Marylou Myers Interview*, *supra* note 427.
- ¹⁰⁴³ See WIS. STAT. ANN. § 7.08(6) (West, WestLaw through 2011 Legis. Sess).
- ¹⁰⁴⁴ See Wis. Gov’t Accountability Bd., *Voluntary Electronic Voting Equipment Audit Results*, <http://elections.state.wi.us/category.asp?linkcatid=1847&linkid=643&locid=47>.
- ¹⁰⁴⁵ Wis. Gov’t Accountability Bd., *Voting System Audit Requirements*, at 3 (Nov. 2006), available at <http://elections.state.wi.us/docview.asp?docid=9851&locid=47>.
- ¹⁰⁴⁶ E-mail Interview with Ross Hein, Elections Supervisor, CERA, Gov’t Accountability Bd., Wis. Elections Div. (Jan. 11, 2012) (on file with Verified Voting) [hereinafter *Ross Hein Interview*].
- ¹⁰⁴⁷ *Lisa Weiner Interview*, and *Chris Teske Interview*, *supra* note 885.
- ¹⁰⁴⁸ WYO. STAT. ANN. § 22-11-109 (West, WestLaw through 2011 Legis. Sess).
- ¹⁰⁴⁹ WYO. ADMIN. CODE Ch. 25(4)(d)(iii) (2011); see also *Lori Klassen Interview*, *supra* note 892.
- ¹⁰⁵⁰ Mark Niquette, *Missing Votes Spark Lawsuit*, COLUMBUS DISPATCH, Aug. 7, 2008.
- ¹⁰⁵¹ *Id.*
- ¹⁰⁵² Letter from David Byrd, President, Premier Election Solutions, to Jennifer Brunner, Ohio Sec’y of State (Aug. 19, 2008) (on file with the Brennan Center).
- ¹⁰⁵³ Kim Zetter, *PA County’s Voting Machines Impounded Following Complaints*, available at WIRED, Nov. 5, 2008, <http://www.wired.com/threatlevel/2008/11/pa-countys-voti>.
- ¹⁰⁵⁴ *Id.*
- ¹⁰⁵⁵ Julia O’Donoghue, *Big Questions About Voting Machines*, THE RESTON CONNECTION, Mar. 18, 2009, available at <http://www.votersunite.org/article.asp?id=8352>.
- ¹⁰⁵⁶ *Id.*
- ¹⁰⁵⁷ Pat Beall and Adam Playford, *Election Fumbles: Four Local Errors in Four Years With County’s System* (May 7, 2012), available at <http://www.palmbeachpost.com/news/news/election-fumbles-four-local-errors-in-four-years-w/nN3gp/> (last visited July 5, 2012).
- ¹⁰⁵⁸ ALA. CODE § 17-12-1.(West, Westlaw through 2011 Leg. Sess.).
- ¹⁰⁵⁹ *Id.*
- ¹⁰⁶⁰ ALA. CODE § 17-12-8. (West, Westlaw through 2011 Leg. Sess.).
- ¹⁰⁶¹ *Ed Packard Interview*, *supra* note 469.
- ¹⁰⁶² Telephone Interview with Roxanne Dyess, Cnty. Elections Coordinator, Mobile Cnty. (June 28, 2012) (on file with Verified Voting) [hereinafter *Roxanne Dyess Interview*]; Telephone Interview with Rick Allison, Probate Judge and Chief Election’s Officer, Walker Cnty. (June 28, 2012) (on file with Verified Voting) [hereinafter *Rick Allison Interview*]; Telephone Interview with Jim Perdue, Probate Judge and Chief Election’s Officer, Crenshaw Cnty. (June 29, 2012) (on file with Verified Voting) [hereinafter *Jim Perdue Interview*].
- ¹⁰⁶³ *Roxanne Dyess Interview* and *Rick Allison Interview*, *id.*
- ¹⁰⁶⁴ *Ed Packard Interview*, *supra* note 1062.
- ¹⁰⁶⁵ *Roxanne Dyess Interview*, *Rick Allison Interview* and *Jim Perdue Interview*, *supra* note 1062.
- ¹⁰⁶⁶ *Roxanne Dyess Interview*, *supra* note 1062.

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- ¹⁰⁶⁷ *Rick Allison Interview*, *supra* note 1062.
- ¹⁰⁶⁸ *Jim Perdue Interview*, *supra* note 1062.
- ¹⁰⁶⁹ ¹⁰⁶⁹ ALA. CODE § 17-12-15 (West, Westlaw through 2011 Leg. sess.).
- ¹⁰⁷⁰ *Jim Perdue Interview*, *supra* note 1062.
- ¹⁰⁷¹ *Roxanne Dyess Interview*, *supra* note 1062.
- ¹⁰⁷² *Rick Allison Interview*, *supra* note 1062.
- ¹⁰⁷³ *Ed Packard Interview*, *supra* note 1062.
- ¹⁰⁷⁴ *Roxanne Dyess Interview*, *Rick Allison Interview* and *Jim Perdue Interview*, *supra* note 1062.
- ¹⁰⁷⁵ *Roxanne Dyess Interview*, *supra* note 1062.
- ¹⁰⁷⁶ *Rick Allison Interview*, *supra* note 1062.
- ¹⁰⁷⁷ ALA. CODE § 17-12-10 (West, Westlaw through 2011 Leg. Sess.).
- ¹⁰⁷⁸ ALA. CODE § 17-12-8 (West, Westlaw through 2011 Leg. Sess.).
- ¹⁰⁷⁹ *Ed Packard Interview*, *supra* note 1062.
- ¹⁰⁸⁰ *Roxanne Dyess Interview*, *Rick Allison Interview* and *Jim Perdue Interview*, *supra* note 1062.
- ¹⁰⁸¹ *Roxanne Dyess Interview* and *Rick Allison Interview*, *supra* note 1062.
- ¹⁰⁸² *Roxanne Dyess Interview*, *supra* note 1062.
- ¹⁰⁸³ *Gail Fenumiai Interview*, *supra* note 474.
- ¹⁰⁸⁴ E-mail Interview with Gail Fenumiai, Dir., Div. of Elections (Mar. 14, 2012) (on file with Verified Voting) [hereinafter *Follow-up Gail Fenumiai Interview*].
- ¹⁰⁸⁵ ALASKA STAT. § 15.15.350 (West, Westlaw through Sept. 8, 2011); Interview with Gail Fenumiai, Dir., Alaska Div. of Elections (July 9, 2012) (on file with Verified Voting) [hereinafter *2nd Follow-up Gail Fenumiai Interview*].
- ¹⁰⁸⁶ *Id.*, ALASKA STAT. § 15.15.370 (West, Westlaw through Sept. 8, 2011).
- ¹⁰⁸⁷ ALASKA STAT. § 15.15.370 (West, Westlaw through Sept. 8, 2011); *2nd Follow-up Gail Fenumiai Interview*, *supra* note 1085.
- ¹⁰⁸⁸ *Id.*
- ¹⁰⁸⁹ ALASKA STAT. § 15.15.350 (West, Westlaw through Sept. 8, 2011); *Gail Fenumiai Interview*, *supra* note 474.
- ¹⁰⁹⁰ *Gail Fenumiai Interview*, *supra* note 474.
- ¹⁰⁹¹ *Id.*
- ¹⁰⁹² *Id.*
- ¹⁰⁹³ *Id.*; *see also* ALASKA STAT. § AS 15.15.430 (West, Westlaw through Sept. 8, 2011).
- ¹⁰⁹⁴ ALASKA STAT. § 15.15.010 (West, Westlaw through Sept. 8, 2011).
- ¹⁰⁹⁵ ALASKA STAT. § 15.15.370 (West, Westlaw through Sept. 8, 2011); *Gail Fenumiai Interview*, *supra* note 474; *see also* ALASKA STAT. § 15.10.180 (West, Westlaw through Sept. 8, 2011).
- ¹⁰⁹⁶ ALASKA STAT. § 15.15.430(a) (West, Westlaw through Sept. 8, 2011); *2nd Follow-up Gail Fenumiai Interview*, *supra* note 1085.
- ¹⁰⁹⁷ ALASKA STAT. § 15.15.430(d) (West, Westlaw through Sept. 8, 2011).
- ¹⁰⁹⁸ ALASKA STAT. § 15.15.440 (West, Westlaw through Sept. 8, 2011).
- ¹⁰⁹⁹ ALASKA STAT. § 15.15.450 (West, Westlaw through Sept. 8, 2011).
- ¹¹⁰⁰ *2nd Follow-up Gail Fenumiai Interview*, *supra* note 1085.
- ¹¹⁰¹ ALASKA STAT. § 15.15.430(d) (West, Westlaw through Sept. 8, 2011).
- ¹¹⁰² *Gail Fenumiai Interview*, *supra* note 427.
- ¹¹⁰³ ARIZ. REV. STAT. ANN. § 16-601 (West, Westlaw through 2011).
- ¹¹⁰⁴ ARIZ. REV. STAT. ANN. § 16-602(A) (West, Westlaw through 2011).
- ¹¹⁰⁵ ARIZ. REV. STAT. ANN. § 16-604(B), 605(A) (West, Westlaw through 2011).
- ¹¹⁰⁶ ARIZ. REV. STAT. ANN. § 16-614 (West, Westlaw through 2011).
- ¹¹⁰⁷ ARIZ. REV. STAT. ANN. § 16-615 (B) (West, Westlaw through 2011).
- ¹¹⁰⁸ ARIZ. REV. STAT. ANN. § 16-608(A) (West, Westlaw through 2011).
- ¹¹⁰⁹ ARIZ. REV. STAT. ANN. § 16-602(A) (West, Westlaw through 2011).
- ¹¹¹⁰ Telephone Interview with Tammy Patrick, Fed. Compliance Officer, Maricopa Cnty. Elections Div. (Feb. 1, 2012) (on file with Verified Voting) [hereinafter *Tammy Patrick Interview*].
- ¹¹¹¹ *Allen Tempert Interview*, *supra* note 908.
- ¹¹¹² *Id.*
- ¹¹¹³ Telephone Interview with Sue Reynolds, Dir., Yuma Cnty. Election Servs. (Jan. 30, 2012) (on file with Verified Voting) [hereinafter *Sue Reynolds Interview*].
- ¹¹¹⁴ ARIZ. REV. STAT. ANN. § 16-643 (West, Westlaw through 2011).

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- 1115 ARIZ. REV. STAT. ANN. § 16-641(A) (West, Westlaw through 2011).
1116 ARIZ. REV. STAT. ANN. § 16-646(A) (West, Westlaw through 2011).
1117 *Id.*
1118 *Tammy Patrick Interview*, *supra* note 1100.
1119 *Allen Tempert Interview*, *supra* note 908.
1120 *Sue Reynolds Interview*, *supra* note 1113.
1121 ARIZ. REV. STAT. ANN. § 16-618 (West, Westlaw through 2011).
1122 *Id.*
1123 *Allen Tempert Interview*, *supra* note 908.
1124 *Sue Reynolds Interview*, *supra* note 1113.
1125 *Tammy Patrick Interview*, *supra* note 1100.
1126 ARK. CODE ANN. § 7-5-314 (West, Westlaw through 2011 Leg. Sess.).
1127 ARK. CODE ANN. § 7-5-317(a)(1) (West, Westlaw through 2011 Leg. Sess.).
1128 ARK. CODE ANN. § 7-5-613(1) (West, Westlaw through 2011 Leg. Sess.).
1129 *Vickie Bishop Interview*, *supra* note 81; *Alice Lowery Interview*, *supra* note 82.
1130 *Alice Lowery Interview*, *supra* note 82.
1131 ARK. CODE ANN. § 7-5-613(2) (West, Westlaw through 2011 Leg. Sess.).
1132 ARK. CODE ANN. § 7-5-603(2)(B) (West, Westlaw through 2011 Leg. Sess.).
1133 ARK. CODE ANN. § 7-5-317(a)(3)(A) (West, Westlaw through 2011 Leg. Sess.).
1134 ARK. CODE ANN. § 7-5-317(a)(3)(B) (West, Westlaw through 2011 Leg. Sess.).
1135 ARK. CODE ANN. § 7-5-317(a)(4)(A) (West, Westlaw through 2011 Leg. Sess.).
1136 ARK. CODE ANN. § 7-5-614(1)(B) (West, Westlaw through 2011 Leg. Sess.).
1137 ARK. CODE ANN. § 7-5-317(a)(3)(A)-(B) (West, Westlaw through 2011 Leg. Sess.).
1138 ARK. CODE ANN. § 7-5-526(a) (West, Westlaw through 2011 Leg. Sess.).
1139 ARK. CODE ANN. § 7-5-527(a)-(b) (West, Westlaw through 2011 Leg. Sess.).
1140 ARK. CODE ANN. § 7-5-527(c)(1) (West, Westlaw through 2011 Leg. Sess.).
1141 ARK. CODE ANN. § 7-5-527(c)(2)(B) (West, Westlaw through 2011 Leg. Sess.).
1142 ARK. CODE ANN. § 7-5-527(e) (West, Westlaw through 2011 Leg. Sess.).
1143 ARK. CODE ANN. § 7-5-613(1) (West, Westlaw through 2011 Leg. Sess.).
1144 *Id.*
1145 *Vickie Bishop Interview*, *supra* note 81; *Alice Lowery Interview*, *supra* note 82.
1146 ARK. CODE ANN. § 7-5-529 (West, Westlaw through 2011 Leg. Sess.).
1147 ARK. CODE ANN. § 7-5-615(e) (West, Westlaw through 2011 Leg. Sess.).
1148 ARK. CODE ANN. § 7-5-707(b) (West, Westlaw through 2011 Leg. Sess.).
1149 *Vickie Bishop Interview*, *supra* note 81; *Alice Lowery Interview*, *supra* note 82.
1150 ARK. CODE ANN. § 7-5-707(a) (West, Westlaw through 2011 Leg. Sess.).
1151 ARK. CODE ANN. § 7-5-707(b) (West, Westlaw through 2011 Leg. Sess.).
1152 ARK. CODE ANN. § 7-5-701(a)(1) (West, Westlaw through 2011 Leg. Sess.).
1153 ARK. CODE ANN. §§ 7-5-615(a), (f) (West, Westlaw through 2011 Leg. Sess.).
1154 ARK. CODE ANN. § 7-5-527(c)(2)(B) (West, Westlaw through 2011 Leg. Sess.).
1155 *See* Ark. Sec'y of State Elections Dept. Home Page, Election Results, *available at* <http://www.votenuaturally.org/electionresults/index.php> (last visited Jan. 20, 2012).
1156 CAL. ELEC. CODE §§ 14403, 14404 (West, Westlaw through 2011 Leg. Sess.).
1157 CAL. ELEC. CODE § 14420(b) (West, Westlaw through 2011 Leg. Sess.).
1158 *Id.*
1159 CAL. ELEC. CODE § 14405(a) (West, Westlaw through 2011 Leg. Sess.).
1160 *Narda Barrientos Interview*, *Neal Kelley Interview* and *Carolyn Crnich Interview*, *supra* note 88.
1161 CAL. ELEC. CODE § 15250 (West, Westlaw through 2011 Leg. Sess.).
1162 CAL. ELEC. CODE § 14421 (West, Westlaw through 2011 Leg. Sess.).
1163 *Narda Barrientos Interview* and *Neal Kelley Interview*, *supra* note 88.
1164 *Follow-up Interview with OLCA*, *supra* note 90.
1165 Cal. Sec'y of State, *Vote by Mail*, *available at* http://www.sos.ca.gov/elections/elections_m.htm#vote-by-mail (last visited Apr. 16, 2012).
1166 CAL. ELEC. CODE § 15320 (West, Westlaw through 2011 Leg. Sess.); *Follow-up Interview with OLCA*, *supra* note 90.

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- ¹¹⁶⁷ CAL. ELEC. CODE § 15321 (West, Westlaw through 2011 Leg. Sess.); *Follow-up Interview with OLCA*, *supra* note 90.
- ¹¹⁶⁸ CAL. ELEC. CODE § 15342(e) (West, Westlaw through 2011 Leg. Sess.).
- ¹¹⁶⁹ CAL. ELEC. CODE § 14420 (West, Westlaw through 2011 Leg. Sess.); *Philly Crosby Interview*, *supra* note 90.
- ¹¹⁷⁰ CAL. ELEC. CODE § 14405(a) (West, Westlaw through 2011 Leg. Sess.).
- ¹¹⁷¹ CAL. ELEC. CODE § 15150 (West, Westlaw through 2011 Leg. Sess.).
- ¹¹⁷² CAL. ELEC. CODE § 15302(b) (West, Westlaw through 2011 Leg. Sess.).
- ¹¹⁷³ CAL. ELEC. CODE § 15302(c) (West, Westlaw through 2011 Leg. Sess.).
- ¹¹⁷⁴ CAL. ELEC. CODE § 15302(d) (West, Westlaw through 2011 Leg. Sess.).
- ¹¹⁷⁵ *Neal Kelley Interview*, *supra* note 88.
- ¹¹⁷⁶ *Carolyn Crnich Interview*, *supra* note 88.
- ¹¹⁷⁷ *Narda Barrientos Interview*, *supra* note 88.
- ¹¹⁷⁸ CAL. ELEC. CODE §§ 15151-52, (West, Westlaw through 2011 Leg. Sess.).
- ¹¹⁷⁹ CAL. ELEC. CODE § 15371 (West, Westlaw through 2011 Leg. Sess.).
- ¹¹⁸⁰ *Philly Crosby Interview*, *supra* note 90.
- ¹¹⁸¹ *Narda Barrientos Interview*, *Neal Kelley Interview* and *Carolyn Crnich Interview*, *supra* note 88.
- ¹¹⁸² *Carolyn Crnich Interview*, *supra* note 88.
- ¹¹⁸³ *Wayne Munster Interview*, *supra* note 514.
- ¹¹⁸⁴ COLO. REV. STAT. ANN. § 1-7-505(2) (West, Westlaw through 2011).
- ¹¹⁸⁵ *Id.*
- ¹¹⁸⁶ COLO. REV. STAT. ANN. § 1-7-507(3) (West, Westlaw through 2011).
- ¹¹⁸⁷ COLO. REV. STAT. ANN. § 1-7-505(3) (West, Westlaw through 2011).
- ¹¹⁸⁸ COLO. REV. STAT. ANN. § 1-7-601(1)-(2) (West, Westlaw through 2011).
- ¹¹⁸⁹ COLO. REV. STAT. ANN. § 1-7-701 (West, Westlaw through 2011).
- ¹¹⁹⁰ COLO. REV. STAT. ANN. § 1-7-307(1) (West, Westlaw through 2011); *see also* COLO. REV. STAT. ANN. § 1-7-505(2) (West, Westlaw current through 2011).
- ¹¹⁹¹ *See* COLO. REV. STAT. ANN. § 1-7-601(1)-(2) (West, Westlaw through 2011).
- ¹¹⁹² COLO. REV. STAT. ANN. § 1-10-101.5(1)(b) (West, Westlaw through 2011); Telephone Interview with Hilary Rudy, Sec’y of State’s Office (July 13, 2012) (on file with Verified Voting).
- ¹¹⁹³ COLO. REV. STAT. ANN. § 1-10-104(2) (West, Westlaw through 2011).
- ¹¹⁹⁴ *Patty Berger Interview*, *supra* note 105.
- ¹¹⁹⁵ *Diane Folowell Interview*, *supra* note 105.
- ¹¹⁹⁶ *Beth Cumming Interview*, *supra* note 105.
- ¹¹⁹⁷ *Diane Folowell Interview*, *supra* note 105.
- ¹¹⁹⁸ *Beth Cumming Interview*, *supra* note 105.
- ¹¹⁹⁹ *Patty Berger Interview*, *supra* note 105.
- ¹²⁰⁰ COLO. REV. STAT. ANN. § 1-7-602 (West, Westlaw current through 2011); *Wayne Munster Interview*, *supra* note 514.
- ¹²⁰¹ *Wayne Munster Interview*, *supra* note 514.
- ¹²⁰² CONN. GEN. STAT. § 9-307 (West, Westlaw through 2011 June Spec. Sess.).
- ¹²⁰³ CONN. AGENCIES REGS. § 9-242a-26 (West, Westlaw through 2011).
- ¹²⁰⁴ *Peggy Reeves Interview*, *supra* note 526.
- ¹²⁰⁵ *Id.*
- ¹²⁰⁶ CONN. GEN. STAT. § 9-309 (West, Westlaw through 2011 June Spec. Sess.).
- ¹²⁰⁷ CONN. GEN. STAT. § 9-259(c)-(d) (West, Westlaw through 2011 June Spec. Sess.); CONN. AGENCIES REGS. §§ 9-242a-22-24 (West, Westlaw through 2011).
- ¹²⁰⁸ CONN. AGENCIES REGS. § 9-242a-22 (West, Westlaw through 2011).
- ¹²⁰⁹ CONN. GEN. STAT. § 9-307 (West, Westlaw through 2011 June Spec. Sess.); CONN. AGENCIES REGS. § 9-242a-27 (West, Westlaw through 2011).
- ¹²¹⁰ *Peggy Reeves Interview*, *supra* note 526.
- ¹²¹¹ *Id.*
- ¹²¹² *Id.*
- ¹²¹³ *Carole Young-Kleinfeld Interview*, *supra* note 527.
- ¹²¹⁴ *Id.*
- ¹²¹⁵ *Alice Fortunado Interview*, *supra* note 527.
- ¹²¹⁶ Telephone Interview with Roger Autuori, Republican Registrar of Voters, Fairfield Cnty. (May 4, 2012) (on

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- file with Verified Voting) [hereinafter *Roger Autuori Interview*].
- 1217 CONN. GEN. STAT. § 9-314 (West, Westlaw through 2011 June Spec. Sess.).
- 1218 *Peggy Reeves Interview*, *supra* note 526.
- 1219 *Roger Autuori Interview*, *supra* note 1216.
- 1220 *Carole Young-Kleinfeld Interview*, *supra* note 527.
- 1221 *Alice Fortunado Interview*, *supra* note 527.
- 1222 CONN. GEN. STAT. § 9-311 (West, Westlaw through 2011 June Spec. Sess.); *Peggy Reeves Interview*, *supra* note 526.
- 1223 *Peggy Reeves Interview*, *supra* note 526.
- 1224 *Carole Young-Kleinfeld Interview*, *supra* note 527.
- 1225 *Roger Autuori Interview*, *supra* note 1216.
- 1226 *Alice Fortunado Interview*, *supra* note 527.
- 1227 CONN. AGENCIES REGS. § 9-242a-22 (West, Westlaw through 2011).
- 1228 CONN. GEN. STAT. § 9-309 (West, Westlaw through 2011 June Spec. Sess.).
- 1229 CONN. GEN. STAT. § 9-312 (West, Westlaw through 2011 June Spec. Sess.).
- 1230 CONN. GEN. STAT. §§ 9-320f(a)-(b), (h), -150b(h) (West, Westlaw through 2011 June Spec. Sess.); *Peggy Reeves Interview*, *supra* note 526.
- 1231 *Roger Autuori Interview*, *supra* note 1216.
- 1232 *Carole Young-Kleinfeld Interview*, *supra* note 527.
- 1233 *Alice Fortunado Interview*, *supra* note 527.
- 1234 DEL. CODE ANN. tit. 15, § 4975(a) (West 2011).
- 1235 *Kenneth McDowell Interview*, *Joyce Wright and Gary Hilderbrand Interview*, and *Howard Sholl Interview*, *supra* note 119.
- 1236 DEL. CODE ANN. tit. 15, § 4975(b), (d)-(e) (West 2011).
- 1237 DEL. CODE ANN. tit. 15, § 4975(c) (West 2011).
- 1238 DEL. CODE ANN. tit. 15, § 4975(d) (West 2011).
- 1239 DEL. CODE ANN. tit. 15, § 4975(e) (West 2011).
- 1240 DEL. CODE ANN. tit. 15, § 4976(a)-(b) (West 2011).
- 1241 DEL. CODE ANN. tit. 15, § 4976(c) (West 2011).
- 1242 DEL. CODE ANN. tit. 15, § 4976(d) (West 2011).
- 1243 DEL. CODE ANN. tit. 15, § 4978 (West 2011).
- 1244 DEL. CODE ANN. tit. 15, § 4979 (West 2011).
- 1245 *Elaine Manlove Interview*, *supra* note 118.
- 1246 *Kenneth McDowell Interview*, *supra* note 119.
- 1247 *Joyce Wright and Gary Hilderbrand Interview*, and *Howard Sholl Interview*, *supra* note 119.
- 1248 DEL. CODE ANN. tit. 15, § 5701 (West 2011).
- 1249 DEL. CODE ANN. tit. 15, § 5702(b)-(e) (West 2011).
- 1250 *Elaine Manlove Interview*, *supra* note 118.
- 1251 *Kenneth McDowell Interview*, *Joyce Wright and Gary Hilderbrand Interview*, and *Howard Sholl Interview*, *supra* note 119.
- 1252 *Howard Sholl Interview*, *supra* note 119.
- 1253 *Joyce Wright and Gary Hilderbrand Interview*, *supra* note 119.
- 1254 DEL. CODE ANN. tit. 15, § 5701(a) (West 2011).
- 1255 DEL. CODE ANN. tit. 15, § 4979(c) (West 2011).
- 1256 *Elaine Manlove Interview*, *supra* note 118.
- 1257 *Alysoun McLaughlin Interview*, *supra* note 541.
- 1258 D.C. MUN. REGS. tit. 3, § 723.1(b) (West, Westlaw through Dec. 2011).
- 1259 *Kevin Newsome Interview*, *supra* note 542.
- 1260 D.C. MUN. REGS. tit. 3, §§ 723.1(a)-(b), (f) (West, Westlaw through Dec. 2011).
- 1261 D.C. MUN. REGS. tit. 3, § 723.1(c) (West, Westlaw through Dec. 2011).
- 1262 D.C. MUN. REGS. tit. 3, § 723.1(d) (West, Westlaw through Dec. 2011).
- 1263 D.C. MUN. REGS. tit. 3, §§ 723.1(e)-(f) (West, Westlaw through Dec. 2011).
- 1264 D.C. MUN. REGS. tit. 3, § 723.8 (West, Westlaw through Dec. 2011); *see also Alysoun McLaughlin Interview*, *supra* note 541.
- 1265 *Kevin Newsome Interview*, *supra* note 542.
- 1266 *Alysoun McLaughlin Interview*, *supra* note 541.
- 1267 *Kevin Newsome Interview*, *supra* note 542.

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- 1268 D.C. MUN. REGS. tit. 3, §§ 723.1(f), 723.8 (West, Westlaw through Dec. 2011); *see also Alysoun McLaughlin Interview, supra* note 541.
- 1269 D.C. MUN. REGS. tit. 3, §§ 723.5(a)-(b) (West, Westlaw through Dec. 2011).
- 1270 D.C. MUN. REGS. tit. 3, §§ 723.2, .3 (West, Westlaw through Dec. 2011).
- 1271 *Kevin Newsome Interview, supra* note 542.
- 1272 D.C. MUN. REGS. tit. 3, § 811.2(b) (West, Westlaw through Dec. 2011).
- 1273 *Alysoun McLaughlin Interview, supra* note 541.
- 1274 *Id.*
- 1275 *Id.*
- 1276 D.C. MUN. REGS. tit. 3, §§ 806.10, .14 (West, Westlaw through Dec. 2011).
- 1277 D.C. MUN. REGS. tit. 3, § 806.11 (West, Westlaw through Dec. 2011).
- 1278 D.C. MUN. REGS. tit. 3, § 806.14 (West, Westlaw through Dec. 2011).
- 1279 D.C. MUN. REGS. tit. 3, § 811.1 (West, Westlaw through Dec. 2011); *see also Alysoun McLaughlin Interview, supra* note 541.
- 1280 D.C. MUN. REGS. tit. 3, § 811.2(a) (West, Westlaw through Dec. 2011).
- 1281 D.C. MUN. REGS. tit. 3, § 811.2(b) (West, Westlaw through Dec. 2011).
- 1282 *Kevin Newsome Interview, supra* note 542.
- 1283 D.C. MUN. REGS. tit. 3, § 811.2(c) (West, Westlaw through Dec. 2011).
- 1284 D.C. MUN. REGS. tit. 3, § 811.2(d) (West, Westlaw through Dec. 2011).
- 1285 D.C. MUN. REGS. tit. 3, § 811.2(e) (West, Westlaw through Dec. 2011).
- 1286 D.C. MUN. REGS. tit. 3, § 811.2(f) (West, Westlaw through Dec. 2011).
- 1287 *Kevin Newsome Interview, supra* note 542.
- 1288 *Id.*
- 1289 D.C. MUN. REGS. tit. 3, § 723.4 (West, Westlaw through Dec. 2011).
- 1290 D.C. MUN. REGS. tit. 3, § 813.2 (West, Westlaw through Dec. 2011); *see also Alysoun McLaughlin Interview, supra* note 541.
- 1291 FLA. STAT. ANN. § 101.5614(1) (West, Westlaw through 2011 Legis. Sess.); FLA. ADMIN. CODE ANN. r. 1S-2.034 (2010); Fla. Dept. of State Div. of Elections, *Polling Place Procedures Manual*, 21, available at http://election.dos.state.fl.us/rules/adopted-rules/pdf/1S2034_PollingPlaceProcedureManual.pdf [hereinafter *Polling Place Procedures Manual*].
- 1292 FLA. ADMIN. CODE ANN. r. 1S-2.034 (2010); *Polling Place Procedures Manual, supra* note 1291, at 21.
- 1293 *Larhonda Wimberly Interview, supra* note 556; Telephone Interview with Charmaine Kelly, Chief Deputy Elections Supervisor, Palm Beach Cnty. (Mar. 2, 2012) (on file with Verified Voting) [hereinafter *Charmaine Kelly Interview*]; E-mail Interview with Ryan Messer, Supervisor of Elections, Walton Cnty. (Mar. 2, 2012) (on file with Verified Voting) [hereinafter *Ryan Messer Interview*]; Telephone Interview with Mary Jane Arrington, Supervisor of Elections, Osceola Cnty. (Mar. 27, 2012) (on file with Verified Voting) [hereinafter *Mary Jane Arrington Interview*].
- 1294 FLA. STAT. ANN. § 101.5614(1) (West, Westlaw through 2011 Legis. Sess.).
- 1295 FLA. ADMIN. CODE ANN. r. 1S-2.034 (2010); *Polling Place Procedures Manual, supra* note 1291, at 21.
- 1296 *Ryan Messer Interview, supra* note 1293.
- 1297 *Charmaine Kelly Interview and Mary Jane Arrington Interview, supra* note 1293.
- 1298 *Mary Jane Arrington Interview, supra* note 1293.
- 1299 *Id.*
- 1300 FLA. STAT. ANN. § 102.141(3) (West, Westlaw through 2011 Legis. Sess.).
- 1301 *Id.*
- 1302 *Id.*
- 1303 FLA. STAT. ANN. § 102.141(6) (West, Westlaw through 2011 Legis. Sess.).
- 1304 *Gisela Salas Interview, supra* note 555.
- 1305 *Larhonda Wimberly Interview, supra* note 556; *Ryan Messer Interview and Mary Jane Arrington Interview, supra* note 1293; Telephone Interview with Tony, voting equipment manager, Palm Beach Cnty. (Mar. 2, 2012) (on file with Verified Voting).
- 1306 *Ryan Messer Interview, supra* note 1293.
- 1307 FLA. STAT. ANN. § 102.112(1) (West, Westlaw through 2011 Legis. Sess.).
- 1308 FLA. STAT. ANN. § 102.141(9)(a) (West, Westlaw through 2011 Legis. Sess.).
- 1309 FLA. STAT. ANN. § 102.071 (West, Westlaw through 2011 Legis. Sess.).
- 1310 FLA. STAT. ANN. § 102.141(9)(c) (West, Westlaw through 2011 Legis. Sess.).

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- 1311 GA. CODE ANN. § 21-2-379.11(c)(1) (LexisNexis 2012).
- 1312 GA. CODE ANN. § 21-2-379.11(c)(2) (LexisNexis 2012).
- 1313 GA. CODE ANN. § 21-2-379.11(c)(3) (LexisNexis 2012).
- 1314 GA. CODE ANN. § 21-2-379.11(d) (LexisNexis 2012).
- 1315 GA. CODE ANN. § 21-2-379.11(e)-(f) (LexisNexis 2012).
- 1316 GA. CODE ANN. § 21-2-379.11(g) (LexisNexis 2012).
- 1317 GA. CODE ANN. § 21-2-379.11(c)(1) (LexisNexis 2012).
- 1318 GA. COMP. R. & REGS. 183-1-12-.02(5)(a)(2)-(3) (West, Westlaw through Nov. 2010).
- 1319 GA. CODE ANN. § 21-2-379.11(d) (West, Westlaw through 2011 Legis. Sess.).
- 1320 *Jeff Jones Interview, Sherrail Jarrett Interview, and Samuel Westmoreland Interview, supra* note 126.
- 1321 *Jeff Jones Interview and Samuel Westmoreland Interview, supra* note 126.
- 1322 *Sherrail Jarrett Interview and Samuel Westmoreland Interview, supra* note 126.
- 1323 GA. CODE ANN. § 21-2-493(b) (West, Westlaw through 2011 Legis. Sess.).
- 1324 *Id.*
- 1325 *Id.*
- 1326 GA. CODE ANN. § 21-2-493(f) (West, Westlaw through 2011 Legis. Sess.).
- 1327 *Id.*
- 1328 GA. CODE ANN. § 21-2-493(h) (West, Westlaw through 2011 Legis. Sess.).
- 1329 *Id.*
- 1330 *Jeff Jones Interview and Sherrail Jarrett Interview, supra* note 126; Telephone Interview with Dwight Brower, Elections Chief, Fulton Cnty. (Mar. 20, 2012) (on file with Verified Voting) [hereinafter *Dwight Brower Interview*].
- 1331 *Sherrail Jarrett Interview, supra* note 126.
- 1332 *Dwight Brower Interview, supra* note 1330.
- 1333 GA. CODE ANN. §§ 21-2-440(a), -456(a) (West, Westlaw through 2011 Legis. Sess.); GA. COMP. R. & REGS. 183-1-12-.02 5(a)(6).
- 1334 *Jeff Jones Interview, supra* note 126.
- 1335 *Sherrail Jarrett Interview, supra* note 126.
- 1336 *Samuel Westmoreland Interview, supra* note 126.
- 1337 HAW. CODE R. § 2-51-98 (West, Westlaw through Oct. 2011).
- 1338 HAW. REV. STAT. § 11-154 (West, Westlaw through 2011 Leg. Sess.).
- 1339 *Hoku F. Interview, supra* note 577.
- 1340 HAW. REV. STAT. § 11-152(b) (West, Westlaw through 2011 Leg. Sess.).
- 1341 *Hoku F. Interview, supra* note 577.
- 1342 HAW. CODE R. § 2-51-93(b) (West, Westlaw through Oct. 2011).
- 1343 HAW. CODE R. § 2-51-93(c)(1) (West, Westlaw through Oct. 2011).
- 1344 HAW. CODE R. § 2-51-93(c)(2) (West, Westlaw through Oct. 2011).
- 1345 HAW. CODE R. §§ 2-51-94(1)-(2) (West, Westlaw through Oct. 2011).
- 1346 HAW. CODE R. § 2-51-95(b) (West, Westlaw through Oct. 2011).
- 1347 HAW. CODE R. § 2-51-96(e) (West, Westlaw through Oct. 2011).
- 1348 HAW. CODE R. § 2-51-96(f) (West, Westlaw through Oct. 2011).
- 1349 HAW. CODE R. §§ 2-51-96(b), (d)-(e) (West, Westlaw through Oct. 2011).
- 1350 HAW. CODE R. § 2-51-96(f) (West, Westlaw through Oct. 2011).
- 1351 HAW. CODE R. §§ 2-51-96.1(a)-(b) (West, Westlaw through Oct. 2011).
- 1352 HAW. CODE R. §§ 2-51-96.1(d)-(e) (West, Westlaw through Oct. 2011).
- 1353 *See* HAW. CODE R. § 2-51-96.2(b)(2) (West, Westlaw through Oct. 2011).
- 1354 HAW. CODE R. § 2-51-96.3(e) (West, Westlaw through Oct. 2011).
- 1355 HAW. CODE R. § 2-51-97(b) (West, Westlaw through Oct. 2011).
- 1356 HAW. CODE R. § 2-51-97(b)(1) (West, Westlaw through Oct. 2011).
- 1357 HAW. CODE R. § 2-51-91(f) (West, Westlaw through Oct. 2011).
- 1358 HAW. CODE R. §§ 2-51-91(g)(1)-(2) (West, Westlaw through Oct. 2011).
- 1359 HAW. REV. STAT. § 11-153(c) (West, Westlaw through 2011 Leg. Sess.).
- 1360 HAW. REV. STAT. §§ 11-155(1)-(5) (West, Westlaw through 2011 Leg. Sess.).
- 1361 HAW. CODE R. § 2-51-90(e) (West, Westlaw through Oct. 2011).
- 1362 HAW. REV. STAT. § 11-153(c) (West, Westlaw through 2011 Leg. Sess.).
- 1363 HAW. REV. STAT. § 11-155 (West, Westlaw through 2011 Leg. Sess.).
- 1364 IDAHO CODE ANN. § 34-1202 (LexisNexis through 2011 Leg. Sess.).

1365 IDAHO CODE ANN. § 34-1008 (LexisNexis through 2011 Leg. Sess.).

1366 IDAHO CODE ANN. § 34-1201(1), 1203 (LexisNexis through 2011 Leg. Sess.).

1367 IDAHO CODE ANN. §§ 34-1007 to -1008 (LexisNexis through 2011 Leg. Sess.).

1368 IDAHO CODE ANN. § 34-1203 (LexisNexis through 2011 Leg. Sess.).

1369 IDAHO CODE ANN. § 34-1204 (LexisNexis through 2011 Leg. Sess.).

1370 *See* IDAHO CODE ANN. § 34-1201(3) (LexisNexis through 2011 Leg. Sess.).

1371 *Janice Shiner Interview*, *supra* note 590.

1372 *Id.*

1373 IDAHO CODE ANN. § 34-1202, 1203 (LexisNexis through 2011 Leg. sess.).

1374 *Sarita Loya Interview*, *supra* note 590.

1375 *Lura Baker Interview*, *supra* note 590.

1376 *Janice Shiner Interview*, *supra* note 590.

1377 IDAHO CODE ANN. § 34-1202 (LexisNexis through 2011 Leg. Sess.).

1378 *Jim Mairs Interview*, *supra* note 589; *Lura Baker Interview*, *Sarita Loya Interview*, and *Janice Shiner Interview*, *supra* note 590.

1379 IDAHO CODE ANN. § 34-1206 (LexisNexis through 2011 Leg. Sess.).

1380 *Jim Mairs Interview*, *supra* note 589.

1381 *Id.*; *Lura Baker Interview*, *Sarita Loya Interview*, and *Janice Shiner Interview*, *supra* note 590.

1382 IDAHO CODE ANN. § 34-1203 (LexisNexis through 2011 Leg. Sess.).

1383 *Jim Mairs Interview*, *supra* note 589.

1384 *Lura Baker Interview*, *Sarita Loya Interview*, and *Janice Shiner Interview*, *supra* note 590.

1385 10 ILL. COMP. STAT. 5/17-18 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.); *see also* 10 ILL. COMP. STAT. 5/24B-10(a), 24C-12 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1386 10 ILL. COMP. STAT. 5/17-16 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.); *see also* 10 ILL. COMP. STAT. 5/24B-10.1 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1387 *Rupert Borgsmiller Interview*, *supra* note 144.

1388 *Jill Wagner Interview*, *supra* note 150.

1389 10 ILL. COMP. STAT. 5/24B-10.1, 24C-12 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1390 10 ILL. COMP. STAT. 5/24B-10.1, 15 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1391 10 ILL. COMP. STAT. 5/24C-15 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1392 10 ILL. COMP. STAT. 5/24B-10 to -10.1 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1393 10 ILL. COMP. STAT. 5/24C-12, 15 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1394 *Verified Voting Verifier*, Illinois, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?&ec=all&year=2010&state=Illinois> (last visited Jan. 30, 2012).

1395 *Rupert Borgsmiller Interview*, *supra* note 144.

1396 10 ILL. COMP. STAT. 5/17-18, 24B-10 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1397 *Id.*

1398 10 ILL. COMP. STAT. 5/17-18 (LexisNexis through Pub. Acts 97-619 of the 2011 Legis. Sess.); *see also* 10 ILL. COMP. STAT. 5/24B-10 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1399 *Rupert Borgsmiller Interview*, *supra* note 144.

1400 *Jill Wagner Interview*, *supra* note 150.

1401 10 ILL. COMP. STAT. 5/24C-12 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1402 10 ILL. COMP. STAT. 5/22-1 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1403 10 ILL. COMP. STAT. 5/22-5 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1404 10 ILL. COMP. STAT. 5/24A-10, 24B-10 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1405 *Id.*

1406 *Rupert Borgsmiller Interview*, *supra* note 144.

1407 10 ILL. COMP. STAT. 5/24C-15 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1408 10 ILL. COMP. STAT. 5/24C-2 (LexisNexis through Pub. Acts 97-619 of 2011 Legis. Sess.).

1409 *Jill Wagner Interview*, *supra* note 150.

1410 *Id.*

1411 10 ILL. COMP. STAT. 5/24B-10.1, 24C-12 (LexisNexis through Pub. Acts 97-619 of the 2011 Legis. Sess.).

1412 10 ILL. COMP. STAT. 5/24B-13, 24C-14 (LexisNexis through Pub. Acts 97-619 of the 2011 Legis. Sess.).

1413 10 ILL. COMP. STAT. 5/17-20 (LexisNexis current Pub. Acts 97-619 of the 2011 Legis. Sess.).

1414 *Rupert Borgsmiller Interview*, *supra* note 144.

1415 *Id.*

1416 *Jill Wagner Interview*, *supra* note 150.

1417 *See* IND. CODE ANN. § 3-12-1 (LexisNexis through Act PL 231 of 2011 First Legis. sess.); *Vance Pool Interview*, *supra* note 168.

1418 *See* IND. CODE ANN. § 3-12-2 (LexisNexis through Act PL 231 of 2011 First Legis. sess.); *Vance Pool Interview*, *supra* note 168.

1419 *Jennifer Baxter Interview*, *supra* note 172.

1420 IND. CODE ANN. § 3-12-3-1 (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1421 IND. CODE ANN. § 3-12-3-2(c) (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1422 IND. CODE ANN. § 3-12-3-10(b)(1) (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1423 IND. CODE ANN. § 3-12-3-2(b) (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1424 IND. CODE ANN. § 3-12-3-12.5 (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1425 *Jennifer Baxter Interview*, *supra* note 172.

1426 IND. CODE ANN. § 3-12-3.5-2 (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1427 IND. CODE ANN. § 3-12-3.5-3 (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1428 *Janet Hasser Interview* and *Kathy Richardson Interview*, *supra* note 172.

1429 *Kathy Richardson Interview*, *supra* note 172.

1430 IND. CODE ANN. §§ 3-12-3-10, -3.5-4 (LexisNexis current through Act PL 231 of the 2011 First Legis. sess.).

1431 *Jennifer Baxter Interview*, *Janet Hasser Interview* and *Kathy Richardson Interview*, *supra* note 172.

1432 *Jennifer Baxter Interview*, *supra* note 172.

1433 *Janet Hasser Interview*, *supra* note 172.

1434 *Kathy Richardson Interview*, *supra* note 172.

1435 IND. CODE ANN. § 3-12-3-1 (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1436 *Id.*

1437 *Janet Hasser Interview*, *supra* note 172.

1438 *Kathy Richardson Interview*, *supra* note 172.

1439 IND. CODE ANN. §§ 3-11-15-22, -25, -43 (LexisNexis through Act PL 231 of 2011 First Legis. Sess.); *Vance Pool Interview*, *supra* note 168.

1440 IND. CODE ANN. § 3-12-4-8 (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1441 *Janet Hasser Interview* and *Kathy Richardson Interview*, *supra* note 172.

1442 *Kathy Richardson Interview*, *supra* note 172.

1443 *Janet Hasser Interview*, *supra* note 172.

1444 *Kathy Richardson Interview*, *supra* note 172.

1445 IND. CODE ANN. §§ 3-12-3-2, -3.5-5 (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1446 IND. CODE ANN. § 3-12-3-11(a) (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1447 IND. CODE ANN. § 3-12-3-3 (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1448 IND. CODE ANN. § 3-12-3.5-2 (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1449 IND. CODE ANN. §§ 3-12-3-11, -3.5-5 (LexisNexis through Act PL 231 of 2011 First Legis. Sess.).

1450 *Janet Hasser Interview* and *Kathy Richardson Interview*, *supra* note 172.

1451 *Mary Mosiman Interview*, *supra* note 608.

1452 IOWA CODE § 50.1A (2011).

1453 IOWA CODE §§ 50.9 to .10 (2011); IOWA SEC'Y OF STATE, Form 1-K: Ballot Record and Receipt (Rev.-08, 2009), available at <http://www.sos.state.ia.us/pdfs/elections/forms/ballotrecord.pdf>. (last visited Nov. 29, 2011) [hereinafter *Iowa Form 1-K*].

1454 *See* IOWA ADMIN. CODE r. 721-26.3(50) (2011).

1455 *Mary Mosiman Interview*, *supra* note 608.

1456 IOWA CODE § 50.11 (2011).

1457 *Brenda Pesbel Interview*, *supra* note 611.

1458 *Roland Caldwell Interview*, *supra* note 611.

1459 *Gloria Carr Interview*, *supra* note 611.

1460 IOWA CODE § 50.6 (2011); *see also* *Mary Mosiman Interview*, *supra* note 608.

1461 *Roland Caldwell Interview*, *Brenda Pesbel Interview* and *Gloria Carr Interview*, *supra* note 611.

1462 *See* *Iowa Form 1-K*, *supra* note 1453; *Mary Mosiman Interview*, *supra* note 608.

1463 IOWA CODE § 50.24 (2011); *Mary Mosiman Interview*, *supra* note 608.

1464 *Id.*

¹⁴⁶⁵ *Mary Mosiman Interview*, *supra* note 608; *see also* IOWA CODE § 50.36 (2011)
¹⁴⁶⁶ *Roland Caldwell Interview* and *Brenda Pesbel Interview*, *supra* note 611.
¹⁴⁶⁷ *Gloria Carr Interview*, *supra* note 611.
¹⁴⁶⁸ IOWA CODE § 50.38 (2011).
¹⁴⁶⁹ *Id.*
¹⁴⁷⁰ *Brenda Pesbel Interview* and *Gloria Carr Interview*, *supra* note 611.
¹⁴⁷¹ *Brenda Pesbel Interview* and *Gloria Carr Interview*, *supra* note 611.
¹⁴⁷² IOWA ADMIN. CODE r. 721-22.51(12) (2011).
¹⁴⁷³ *Roland Caldwell Interview*, *supra* note 611.
¹⁴⁷⁴ *Brenda Pesbel Interview*, *supra* note 611.
¹⁴⁷⁵ *Gloria Carr Interview*, *supra* note 611.
¹⁴⁷⁶ IOWA ADMIN. CODE r. 721-5.16(10) (2011).
¹⁴⁷⁷ *Mary Mosiman Interview*, *supra* note 608.
¹⁴⁷⁸ KAN. STAT. ANN. § 25-3001 (2011).
¹⁴⁷⁹ *Id.*
¹⁴⁸⁰ KAN. STAT. ANN. § 25-3006(a) (2011).
¹⁴⁸¹ KAN. STAT. ANN. § 25-3006(a) (2011).
¹⁴⁸² *Krysta Torsen Interview*, *supra* note 179; *Marcia Ashmore Interview*, *supra* note 180; *Jenna Fager Interview*, *supra* note 181.
¹⁴⁸³ KAN. STAT. ANN. § 25-4611(a) (2011).
¹⁴⁸⁴ *Id.* § 25-4611(e).
¹⁴⁸⁵ *Id.* § 25-4611(b).
¹⁴⁸⁶ *Krysta Torsen Interview*, *supra* note 170; *Marcia Ashmore Interview*, *supra* note 180.
¹⁴⁸⁷ KAN. STAT. ANN. § 25-4612(a) (2011).
¹⁴⁸⁸ *Id.* § 25-4612(d).
¹⁴⁸⁹ *Id.* § 25-4612(b).
¹⁴⁹⁰ *Jenna Fager Interview*, *supra* note 181.
¹⁴⁹¹ KAN. STAT. ANN. § 25-3001(e) (2011).
¹⁴⁹² *See* KAN. ADMIN. REGS. § 7-24-2 (2011).
¹⁴⁹³ *Krysta Torsen Interview*, *supra* note 179; *Marcia Ashmore Interview*, *supra* note 180; *Jenna Fager Interview*, *supra* note 181.
¹⁴⁹⁴ KAN. STAT. ANN. § 25-4611(a) (2011).
¹⁴⁹⁵ KAN. STAT. ANN. § 25-4412(a) (2011).
¹⁴⁹⁶ KAN. STAT. ANN. § 25-3103(b) (2011).
¹⁴⁹⁷ KAN. STAT. ANN. § 25-3106 (2011).
¹⁴⁹⁸ KAN. STAT. ANN. § 25-3107(a) (2011).
¹⁴⁹⁹ KAN. STAT. ANN. § 25-3107(b) (2011).
¹⁵⁰⁰ KAN. STAT. ANN. § 25-3202 (2011).
¹⁵⁰¹ *Brad Bryant Interview*, *supra* note 183.
¹⁵⁰² *Krysta Torsen Interview*, *supra* note 179; *Marcia Ashmore Interview*, *supra* note 180; *Jenna Fager Interview*, *supra* note 181.
¹⁵⁰³ *Krysta Torsen Interview*, *supra* note 179.
¹⁵⁰⁴ *Marcia Ashmore Interview*, *supra* note 180.
¹⁵⁰⁵ *Jenna Fager Interview*, *supra* note 181.
¹⁵⁰⁶ KAN. STAT. ANN. § 25-4611(e) (2011).
¹⁵⁰⁷ KAN. STAT. ANN. § 25-4412(d) (2011).
¹⁵⁰⁸ KAN. STAT. ANN. §§ 25-4611(c), 4412(c) (2011).
¹⁵⁰⁹ KAN. STAT. ANN. § 25-3109 (2011).
¹⁵¹⁰ *Krysta Torsen Interview*, *supra* note 179; *Marcia Ashmore Interview*, *supra* note 180.
¹⁵¹¹ *Jenna Fager Interview*, *supra* note 181.
¹⁵¹² 31 KY. ADMIN. REGS. 2:010, Sec. 21 (2007).
¹⁵¹³ *Jan Mills Interview* and *Valerie Newell Interview*, *supra* note 198.
¹⁵¹⁴ KY. REV. STAT. ANN. 117.275(2)(b)-(c) (West 2011); *see also* *Maryellen Allen Interview*, *supra* note 194.
¹⁵¹⁵ KY. REV. STAT. ANN. 117.275(2)(d) (West 2011).
¹⁵¹⁶ KY. REV. STAT. ANN. 117.275(4) (West 2011); *Maryellen Allen Interview*, *supra* note 194.
¹⁵¹⁷ KY. REV. STAT. ANN. 117.275(5) (West 2011).

1518 *Maryellen Allen Interview*, *supra* note 194; *see also* KY. REV. STAT. ANN. 117.275(6) (West 2011).
1519 *Maryellen Allen Interview*, *supra* note 194.
1520 *Tracy Merriman Interview*, *supra* note 198.
1521 *Valerie Newell Interview*, *supra* note 198.
1522 *Maryellen Allen Interview*, *supra* note 194.
1523 31 KY. ADMIN. REGS. 2:010, Sec. 13(2), (5) (2007).
1524 31 KY. ADMIN. REGS. 2:010, Sec. 11(3)(a) (2007).
1525 31 KY. ADMIN. REGS. 2:010, Sec. 21(11) (2007).
1526 31 KY. ADMIN. REGS. 2:010, Sec. 11 (2007).
1527 *Jan Mills Interview*, *Valerie Newell Interview* and *Tracy Merriman Interview*, *supra* note 198.
1528 *Maryellen Allen Interview*, *supra* note 194.
1529 *Id.*
1530 KY. REV. STAT. ANN. § 117.305(1) (West 2011).
1531 *Maryellen Allen Interview*, *supra* note 194.
1532 *Id.*
1533 KY. REV. STAT. ANN. § 117.305(2)(f) (West 2011).
1534 *Jan Mills Interview Valerie Newell Interview* and *Tracy Merriman Interview*, *supra* note 198.
1535 *Maryellen Allen Interview*, *supra* note 194.
1536 *Jan Mills Interview*, *supra* note 198.
1537 *Valerie Newell Interview*, *supra* note 198.
1538 *Tracy Merriman Interview*, *supra* note 198.
1539 *Maryellen Allen Interview*, *supra* note 194.
1540 *Id.*
1541 KY. REV. STAT. ANN. §§ 117.275(3), (4) (West 2011); *Maryellen Allen Interview*, *supra* note 194.
1542 KY. REV. STAT. ANN. §§ 117.275(9), .305(1) (West 2011); *Maryellen Allen Interview*, *supra* note 194.
1543 LA. REV. STAT. ANN. § 18:571(A)(2)(a) (LexisNexis through 2011 Leg. Sess.).
1544 LA. REV. STAT. ANN. §§ 18:571(A)(2)(b) – (A)(3)(a) (LexisNexis through 2011 Leg. Sess.).
1545 *Alaina Rung Interview*, *Brenda Folse Interview* and *Marion Hopkins Interview*, *supra* note 209.
1546 LA. REV. STAT. ANN. §§ 18:571(A)(4), (5), (7) (LexisNexis through 2011 Leg. Sess.).
1547 LA. REV. STAT. ANN. § 18:571(8) (LexisNexis through 2011 Leg. Sess.).
1548 LA. REV. STAT. ANN. § 18:572 (LexisNexis through 2011 Leg. Sess.).
1549 *Angie Rogers Interview*, *supra* note 208.
1550 *Alaina Rung Interview*, *Brenda Folse Interview* and *Marion Hopkins Interview*, *supra* note 209.
1551 *Marion Hopkins Interview*, *supra* note 209.
1552 LA. REV. STAT. ANN. § 18:572 (LexisNexis through 2011 Leg. Sess.).
1553 LA. REV. STAT. ANN. § 18:574(D)(1) (LexisNexis through 2011 Leg. Sess.).
1554 LA. REV. STAT. ANN. §§ 18:571(A)(4) (LexisNexis through 2011 Leg. Sess.).
1555 LA. REV. STAT. ANN. § 18:571(A)(3)(a)(iv) (LexisNexis through 2011 Leg. Sess.).
1556 *Alaina Rung Interview* and *Marion Hopkins Interview*, *supra* note 209.
1557 *Brenda Folse Interview*, *supra* note 209.
1558 *Alaina Rung Interview*, *supra* note 209.
1559 LA. REV. STAT. ANN. § 18:573(B) (LexisNexis through 2011 Leg. Sess.).
1560 *Id.*
1561 *See* LA. REV. STAT. ANN. § 18:574(A)(2) (LexisNexis through 2011 Leg. Sess.).
1562 *See* LA. REV. STAT. ANN. §§ 18:574(B)(1)–(6) (LexisNexis through 2011 Leg. Sess.).
1563 *Alaina Rung Interview*, *Brenda Folse Interview* and *Marion Hopkins Interview*, *supra* note 209.
1564 *Alaina Rung Interview*, *Brenda Folse Interview* and *Marion Hopkins Interview*, *supra* note 209.
1565 *Marion Hopkins Interview*, *supra* note 209.
1566 LA. REV. STAT. ANN. § 18:571(A)(5) (LexisNexis through 2011 Leg. Sess.).
1567 *Alaina Rung Interview*, *Brenda Folse Interview* and *Marion Hopkins Interview*, *supra* note 209.
1568 ME. REV. STAT. ANN. tit. 21-A, § 695 (LexisNexis through Chap. 447 of First Legis. Sess. 2011).
1569 *See* ME. REV. STAT. ANN. tit. 21-A, § 693 (LexisNexis through Chap. 447 of First Legis. Sess. 2011).
1570 ME. REV. STAT. ANN. tit. 21-A, § 695.2 (LexisNexis through Chap. 447 of First Legis. Sess. 2011).
1571 *Id.*
1572 *See* ME. REV. STAT. ANN. tit. 21-A, § 698.2-A (LexisNexis through Chap. 447 of First Legis. Sess. 2011).
1573 *Id.*

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- ¹⁵⁷⁴ *Karrie Cramer Interview, Carmen Morris Interview and Christine Wolfe Interview, supra* note 635.
- ¹⁵⁷⁵ *Karrie Cramer Interview, Carmen Morris Interview and Christine Wolfe Interview, supra* note 635.
- ¹⁵⁷⁶ ME. REV. STAT. ANN. tit. 21-A, § 698.3 (LexisNexis through Chap. 447 of First Legis. Sess. 2011); *see also Julie Flynn Interview, supra* note 633.
- ¹⁵⁷⁷ ME. REV. STAT. ANN. tit. 21-A, § 698.4 (LexisNexis through Chap. 447 of First Legis. Sess. 2011).
- ¹⁵⁷⁸ ME. REV. STAT. ANN. tit. 21-A, § 711 (LexisNexis through Chap. 447 of First Legis. Sess. 2011); *see also Julie Flynn Interview, supra* note 633.
- ¹⁵⁷⁹ *Karrie Cramer Interview, Carmen Morris Interview and Christine Wolfe Interview, supra* note 635.
- ¹⁵⁸⁰ ME. REV. STAT. ANN. tit. 21-A, §§ 711, 711.2-A (LexisNexis through Chap. 447 of First Legis. Sess. 2011).
- ¹⁵⁸¹ ME. REV. STAT. ANN. tit. 21-A, § 711.2 (LexisNexis through Chap. 447 of First Legis. Sess. 2011).
- ¹⁵⁸² ME. REV. STAT. ANN. tit. 21-A, § 722.1 (LexisNexis through Chap. 447 of First Legis. Sess. 2011).
- ¹⁵⁸³ ME. REV. STAT. ANN. tit. 21-A, § 722.2 (LexisNexis through Chap. 447 of First Legis. Sess. 2011).
- ¹⁵⁸⁴ *Karrie Cramer Interview and Christine Wolfe Interview, supra* note 635.
- ¹⁵⁸⁵ *Carmen Morris Interview, supra* note 635.
- ¹⁵⁸⁶ *See Julie Flynn Interview, supra* note 633.
- ¹⁵⁸⁷ ME. REV. STAT. ANN. tit. 21-A, §§ 695.1, .3 (LexisNexis through Chap. 447 of First Legis. Sess. 2011).
- ¹⁵⁸⁸ *Karrie Cramer Interview, Carmen Morris Interview and Christine Wolfe Interview, supra* note 635.
- ¹⁵⁸⁹ *Julie Flynn Interview, supra* note 633.
- ¹⁵⁹⁰ *Karrie Cramer Interview, supra* note 635.
- ¹⁵⁹¹ *Carmen Morris Interview, supra* note 635.
- ¹⁵⁹² *Christine Wolfe Interview, supra* note 635.
- ¹⁵⁹³ ME. REV. STAT. ANN. tit. 21-A, § 722.3 (LexisNexis through Chap. 447 of First Legis. Sess. 2011).
- ¹⁵⁹⁴ MD. CODE ANN., ELEC. LAW § 11-202(b)(1) (LexisNexis 2011).
- ¹⁵⁹⁵ MD. CODE ANN., ELEC. LAW § 11-202(b)(3) (LexisNexis 2011).
- ¹⁵⁹⁶ MD. CODE ANN., ELEC. LAW § 11-202(b)(5)(viii) (LexisNexis 2011).
- ¹⁵⁹⁷ MD. CODE ANN., ELEC. LAW § 10-314(a)(1) (LexisNexis 2011); MD. CODE REGS. 33.08.04.02 (2011).
- ¹⁵⁹⁸ MD. CODE REGS. 33.10.02.12(A) (2011).
- ¹⁵⁹⁹ MD. CODE REGS. 33.10.02.36(B)(1) (2011).
- ¹⁶⁰⁰ MD. CODE REGS. 33.10.02.31 (2011).
- ¹⁶⁰¹ MD. CODE ANN., ELEC. LAW § 11-202(b)(5) (LexisNexis 2011); MD. CODE REGS. 33.10.02.35 (2011).
- ¹⁶⁰² *David Gareiss Interview, supra* note 229; *Steve Fratz Interview and Evelyn Potter Interview, supra* note 227.
- ¹⁶⁰³ *David Gareiss Interview, supra* note 229.
- ¹⁶⁰⁴ MD. CODE REGS. 33.08.05.01 (2011).
- ¹⁶⁰⁵ MD. CODE REGS. 33.08.05.02, .04 (2011).
- ¹⁶⁰⁶ *Ross Goldstein Interview, supra* note 54; *see also* MD. CODE REGS. 33.08.01.10 (2011).
- ¹⁶⁰⁷ MD. CODE REGS. 33.08.01.10(A)-(B) (2011).
- ¹⁶⁰⁸ MD. CODE REGS. 33.08.01.10(C) (2011).
- ¹⁶⁰⁹ *David Gareiss Interview, supra* note 229; *Steve Fratz Interview and Evelyn Potter Interview, supra* note 227.
- ¹⁶¹⁰ MD. CODE ANN., ELEC. LAW § 11-307 (LexisNexis 2011).
- ¹⁶¹¹ MD. CODE ANN., ELEC. LAW §§ 11- 308, 401 (LexisNexis 2011).
- ¹⁶¹² MD. CODE REGS. 33.10.02.32 (2011).
- ¹⁶¹³ MD. CODE REGS. 33.10.02.36(A) (2011).
- ¹⁶¹⁴ MD. CODE REGS. 33.10.02.12(B)(1) (2011).
- ¹⁶¹⁵ MD. CODE REGS. 33.10.02.12(B)(2) (2011).
- ¹⁶¹⁶ *David Gareiss Interview, supra* note 229; *Steve Fratz Interview and Evelyn Potter Interview, supra* note 227.
- ¹⁶¹⁷ MD. CODE REGS. 33.10.02.31 (2011).
- ¹⁶¹⁸ MD. CODE ANN., ELEC. LAW § 11-402(c) (LexisNexis 2011).
- ¹⁶¹⁹ MASS. GEN. LAWS ch. 54, § 105A (2011); 950 MASS. CODE REGS. 54.06(7)(a) (2011); E-mail Interview with Michelle Tassinari, Dir. of Elections, Legal Counsel Election Division, Secy' of the Commonwealth of Mass. (Feb. 3, 2012) (on file with Verified Voting) [hereinafter *Michelle Tassinari Interview*].
- ¹⁶²⁰ 950 MASS. CODE REGS. 54.06(9)(a) (2011); *Michelle Tassinari Interview, supra* note 1619.
- ¹⁶²¹ MASS. GEN. LAWS ch. 54, § 105A (2011).
- ¹⁶²² *Id.*
- ¹⁶²³ MASS. GEN. LAWS ch. 54, § 109 (2011).
- ¹⁶²⁴ *Kathleen Nagle Interview and Elizabeth Camara Interview, supra* note 649.
- ¹⁶²⁵ *Mary Kennedy Interview, supra* note 649.

¹⁶²⁶ 950 MASS. CODE REGS. 54.06 (2011); *Michelle Tassinari Interview*, *supra* note 1619.
¹⁶²⁷ 950 MASS. CODE REGS. 54.06(14)-(15) (2011).
¹⁶²⁸ 950 MASS. CODE REGS. 54.06(23) (2011).
¹⁶²⁹ 950 MASS. CODE REGS. 54.06(20)-(22) (2011).
¹⁶³⁰ *Kathleen Nagle Interview*, *Mary Kennedy Interview* and *Elizabeth Camara Interview*, *supra* note 649.
¹⁶³¹ *Elizabeth Camara Interview*, *supra* note 649.
¹⁶³² MASS. GEN. LAWS ch. 54, § 111 (2011).
¹⁶³³ MASS. GEN. LAWS ch. 54, §§ 115, 116 (2011).
¹⁶³⁴ *Michelle Tassinari Interview*, *supra* note 1619.
¹⁶³⁵ *Kathleen Nagle Interview*, *Mary Kennedy Interview* and *Elizabeth Camara Interview*, *supra* note 649.
¹⁶³⁶ *Mary Kennedy Interview*, *supra* note 649.
¹⁶³⁷ MASS. GEN. LAWS ch. 54, § 105A (2011).
¹⁶³⁸ MASS. GEN. LAWS ch. 54, § 110(a), 115 (2011); 950 MASS. CODE REGS. 54.06(15A) (2011); *Michelle Tassinari Interview*, *supra* note 1619.
¹⁶³⁹ *Elizabeth Camara Interview*, *supra* note 649.
¹⁶⁴⁰ *Mary Kennedy Interview*, *supra* note 649.
¹⁶⁴¹ *Kathleen Nagle Interview*, *supra* note 649.
¹⁶⁴² MICH. COMP. LAWS ANN. § 168.801 (West 2011).
¹⁶⁴³ MICH. COMP. LAWS ANN. § 168.805 (West 2011).
¹⁶⁴⁴ *Id.*; MICH. COMP. LAWS ANN. § 168.806 (West 2011).
¹⁶⁴⁵ MICH. COMP. LAWS ANN. § 168.806(a) (West 2011).
¹⁶⁴⁶ MICH. COMP. LAWS ANN. § 168.805(2) (West 2011).
¹⁶⁴⁷ MICH. COMP. LAWS ANN. § 168.806 (West 2011).
¹⁶⁴⁸ *Melissa Malerman Interview*, *supra* note 653; *see also* MICH. COMP. LAWS ANN. § 168.801, .803 (West 2011).
¹⁶⁴⁹ *Melissa Malerman Interview*, *supra* note 653.
¹⁶⁵⁰ *Id.*; *see, e.g.*, Mich. Dep’t of State, Election Inspectors’ Guide for AccuVote Precinct Tabulator, *available at* http://www.michigan.gov/documents/sos/AccuVote_Techsheat_203151_7.pdf (last visited Dec. 9, 2011). [hereinafter *Guide for AccuVote Precinct Tabulator*].
¹⁶⁵¹ *Melissa Malerman Interview*, *supra* note 653; *see, e.g.*, *Guide for AccuVote Precinct Tabulator*, *supra* note 1650.
¹⁶⁵² *Melissa Malerman Interview*, *supra* note 653.
¹⁶⁵³ MICH. COMP. LAWS ANN. § 168.802 (West 2011).
¹⁶⁵⁴ *Dina Peek Interview*, *supra* note 655.
¹⁶⁵⁵ *Dawn Olney Interview*, *supra* note 655.
¹⁶⁵⁶ MICH. COMP. LAWS ANN. §§ 168.821, .822 (West 2011).
¹⁶⁵⁷ *Melissa Malerman Interview*, *supra* note 653.
¹⁶⁵⁸ MICH. COMP. LAWS ANN. § 168.823 (West 2011).
¹⁶⁵⁹ *Dawn Olney Interview*, *supra* note 655.
¹⁶⁶⁰ *Dina Peek Interview*, *supra* note 655.
¹⁶⁶¹ *Id.*
¹⁶⁶² MICH. COMP. LAWS ANN. § 168.807 (West 2011).
¹⁶⁶³ MICH. COMP. LAWS ANN. §§ 168.809(1)-(2), .824, .825 (West 2011).
¹⁶⁶⁴ MICH. COMP. LAWS ANN. § 168.809(2) (West 2011).
¹⁶⁶⁵ *Melissa Malerman Interview*, *supra* note 653.
¹⁶⁶⁶ *Id.*
¹⁶⁶⁷ *Deborah Hillman Interview*, *supra* note 655.
¹⁶⁶⁸ *Dawn Olney Interview*, *supra* note 655.
¹⁶⁶⁹ MINN. STAT. ANN. § 206.86(1) (West 2010).
¹⁶⁷⁰ *Id.*
¹⁶⁷¹ MINN. STAT. ANN. § 206.845(2) (West 2010).
¹⁶⁷² *Id.*
¹⁶⁷³ MINN. STAT. ANN. § 206.86(2) (West 2010).
¹⁶⁷⁴ MINN. STAT. ANN. § 206.86(4) (West 2010).
¹⁶⁷⁵ MINN. STAT. ANN. § 206.86(6) (West 2010).
¹⁶⁷⁶ MINN. STAT. ANN. § 204C.19(2) (West 2010).
¹⁶⁷⁷ *Id.*
¹⁶⁷⁸ MINN. STAT. ANN. § 204C.27 (West 2010).

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- 1679 *Heather Henrich Interview, Mary Schwendig Interview and Vicki Doebling Interview, supra* note 668.
- 1680 MINN. STAT. ANN. § 204C.24(1)(a)-(e) (West 2010).
- 1681 MINN. STAT. ANN. § 206.86(6) (West 2010).
- 1682 *Id.*
- 1683 *Heather Henrich Interview, Mary Schwendig Interview and Vicki Doebling Interview, supra* note 668.
- 1684 *Heather Henrich Interview and Vicki Doebling Interview, supra* note 668.
- 1685 *Mary Schwendig Interview, supra* note 668.
- 1686 MINN. STAT. ANN. § 206.86(1) (West 2010).
- 1687 *Mary Schwendig Interview, supra* note 668.
- 1688 MINN. STAT. ANN. §§ 206.86(1), 204C.20(2) (West 2010).
- 1689 MINN. STAT. ANN. § 204C.20(2) (West 2010).
- 1690 MINN. STAT. ANN. § 204C.33(1)(a)-(e) (West 2010).
- 1691 MINN. STAT. ANN. § 204C.33(1) (West 2010).
- 1692 *Gary Poser Interview, supra* note 667.
- 1693 *Heather Henrich Interview and Vicki Doebling Interview, supra* note 668.
- 1694 *Mary Schwendig Interview, supra* note 668.
- 1695 *Gary Poser Interview, supra* note 667.
- 1696 *Heather Henrich Interview, supra* note 668.
- 1697 *Mary Schwendig Interview, supra* note 668.
- 1698 *Vicki Doebling Interview, supra* note 668.
- 1699 MINN. STAT. ANN. §§ 204C.19(1), 206.86(3) (West 2010).
- 1700 *Heather Henrich Interview, Mary Schwendig Interview and Vicki Doebling Interview, supra* note 668.
- 1701 *Heather Henrich Interview, supra* note 668.
- 1702 MINN. STAT. ANN. § 206.86(4) (West 2010).
- 1703 *Gary Poser Interview, supra* note 667.
- 1704 MINN. STAT. ANN. § 204C.33(2) (West 2010).
- 1705 MISS. CODE ANN. § 23-15-531.10(3) (2011).
- 1706 MISS. CODE ANN. § 23-15-531.10(4) (2011).
- 1707 MISS. CODE ANN. §§ 23-15-531.10(5) to (6) (2011).
- 1708 *Miss Stanford Interview, supra* note 236.
- 1709 *Pamela Weaver Interview, supra* note 236.
- 1710 MISS. CODE ANN. § 23-15-517 (2011).
- 1711 MISS. CODE ANN. § 23-15-519 (2011).
- 1712 *Id.*
- 1713 *Miss Lofton Interview, supra* note 236.
- 1714 *Pamela Weaver Interview, supra* note 236.
- 1715 MISS. CODE ANN. § 23-15-591 (2011).
- 1716 *Id.*
- 1717 MISS. CODE ANN. § 23-15-595 (2011).
- 1718 *Miss Lofton Interview and Miss Stanford Interview, supra* note 236.
- 1719 *Pamela Weaver Interview, supra* note 236.
- 1720 MISS. CODE ANN. § 23-15-591 (2011).
- 1721 *Id.*
- 1722 *Id.*
- 1723 *Miss Lofton Interview and Miss Stanford Interview, supra* note 236.
- 1724 *Pamela Weaver Interview, supra* note 236.
- 1725 MISS. CODE ANN. § 23-15-597 (2011).
- 1726 *Pamela Weaver Interview, supra* note 236.
- 1727 MISS. CODE ANN. §§ 23-15-601, -603 (2011).
- 1728 *Pamela Weaver Interview, supra* note 236.
- 1729 MISS. CODE ANN. §§ 23-15-613(1), (2) (2011).
- 1730 E-mail Interview with Leslye Winslow, Senior Counsel, Missouri Sec’y of State (Apr. 4, 2012) (on file with Verified Voting) [hereinafter *Leslye Winslow Interview*].
- 1731 *Miss Lofton Interview, supra* note 236.
- 1732 *Miss Stanford Interview, supra* note 236.
- 1733 MISS. CODE ANN. §§ 23-15-531.10, 523(1) (2011).

1734 MISS. CODE ANN. § 23-15-591 (2011).

1735 *Miss Lofton Interview* and *Miss Stanford Interview*, *supra* note 236.

1736 *Miss Stanford Interview*, *supra* note 236.

1737 MO. CODE REGS. ANN. tit.15, § 30-10.150(4) (2011).

1738 MO. CODE REGS. ANN. tit.15, § 30-10.150(5) (2011).

1739 *Chrissy Peters Interview*, *supra* note 680.

1740 *Zach McFarland Interview*, *Marvin Register Interview*, and *Barbara Daly Interview*, *supra* note 683.

1741 *Marvin Register Interview*, *supra* note 683.

1742 MO. CODE REGS. ANN. tit.15, § 30-10.150(6) (2011).

1743 MO. CODE REGS. ANN. tit.15, § 30-10.150(7), (9) (2011).

1744 MO. CODE REGS. ANN. tit.15, § 30-10.150(8) (2011).

1745 MO. CODE REGS. ANN. tit.15, § 30-10.150(4) (2011).

1746 *Id.*

1747 *Id.*; *Chrissy Peters Interview*, *supra* note 680.

1748 MO. CODE REGS. ANN. tit.15, § 30-10.160(6) (2011).

1749 *Chrissy Peters Interview*, *supra* note 680.

1750 *Zach McFarland Interview*, *Marvin Register Interview*, and *Barbara Daly Interview*, *supra* note 683.

1751 *Barbara Daly Interview*, *supra* note 683.

1752 MO. CODE REGS. ANN. tit.15, § 30-10.160(7) (2011).

1753 MO. CODE REGS. ANN. tit.15, § 30-10.160(7)(A) (2011).

1754 MO. ANN. STAT. § 115.497 (West 2011).

1755 MO. ANN. STAT. § 115.501 (West 2011).

1756 MO. ANN. STAT. § 115.503(1) (West 2011).

1757 MO. ANN. STAT. § 115.503(2) (West 2011).

1758 MO. ANN. STAT. § 115.507(2) (West 2011).

1759 *Leslye Winslow Interview*, *supra* note 1759.

1760 *Zach McFarland Interview*, *Marvin Register Interview*, and *Barbara Daly Interview*, *supra* note 683.

1761 *Chrissy Peters Interview*, *supra* note 680.

1762 MO. ANN. STAT. § 115.503 (West 2011).

1763 *Leslye Winslow Interview*, *supra* note 1759.

1764 *Zach McFarland Interview*, *Marvin Register Interview*, and *Barbara Daly Interview*, *supra* note 683.

1765 *Barbara Daly Interview*, *supra* note 683.

1766 MONT. CODE ANN. § 13-15-101(1)-(2) (West 2011).

1767 *Verified Voting Verifier, Montana*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?&ec=all&year=2010&state=Montana> (last visited Mar. 5, 2012); *see also* MONT. CODE ANN. § 13-15-206(3)(a) (West 2011).

1768 MONT. CODE ANN. § 13-15-206(2)(a)-(b) (West 2011).

1769 MONT. CODE ANN. § 13-15-206(2)(b)(iii) (West 2011).

1770 *Lisa Kimmet Interview*, *supra* note 690.

1771 *Id.*

1772 MONT. CODE ANN. § 13-15-204 (West 2011).

1773 *Rebecca Connors Interview*, *Misti Norris Interview*, *Kathie Nengard Interview*, and *Sherry Bjorndal Interview*, *supra* note 691.

1774 MONT. CODE ANN. § 13-15-205 (West 2011).

1775 MONT. CODE ANN. § 13-15-201(2) (West 2011).

1776 *Lisa Kimmet Interview*, *supra* note 690.

1777 MONT. CODE ANN. § 13-15-201(3) (2011).

1778 MONT. CODE ANN. § 13-15-401 (West 2011).

1779 MONT. CODE ANN. § 13-15-403(1) (West 2011).

1780 MONT. CODE ANN. § 13-15-403(4) (West 2011).

1781 MONT. CODE ANN. § 13-15-404 (West 2011).

1782 *Rebecca Connors Interview*, *supra* note 691.

1783 *Misti Norris Interview*, *supra* note 691.

1784 *Kathie Nengard Interview*, *supra* note 691.

1785 MONT. CODE ANN. § 13-15-101 (West 2011); *Lisa Kimmet Interview*, *supra* note 690.

1786 MONT. CODE ANN. § 13-15-403(1) (West 2011).

¹⁷⁸⁷ *Lisa Kimmel Interview, supra* note 690.
¹⁷⁸⁸ *Kathie Newgard Interview, supra* note 691.
¹⁷⁸⁹ *Rebecca Connors Interview, supra* note 691.
¹⁷⁹⁰ *Misti Norris Interview, supra* note 691.
¹⁷⁹¹ *Sherry Bjorndal Interview, supra* note 691.
¹⁷⁹² *Becky Richter Interview, supra* note 696.
¹⁷⁹³ NEB. REV. STAT. § 32-1001 (2011).
¹⁷⁹⁴ *Becky Richter Interview, supra* note 696.
¹⁷⁹⁵ NEB. REV. STAT. § 32-1010 (2011).
¹⁷⁹⁶ NEB. REV. STAT. §§ 32-1010, -1012 (2011).
¹⁷⁹⁷ NEB. REV. STAT. § 32-1012 (2011); *Becky Richter Interview, supra* note 696.
¹⁷⁹⁸ *Becky Richter Interview, supra* note 696.
¹⁷⁹⁹ *Id.*
¹⁸⁰⁰ NEB. REV. STAT. § 32-1017 (2011).
¹⁸⁰¹ *Becky Richter Interview, supra* note 696.
¹⁸⁰² *Id.*
¹⁸⁰³ *Id.*
¹⁸⁰⁴ *Id.*
¹⁸⁰⁵ *See* NEB. REV. STAT. § 32-1031 (2011).
¹⁸⁰⁶ *Becky Richter Interview, supra* note 696.
¹⁸⁰⁷ NEB. REV. STAT. § 32-1031(1) (2011); *Becky Richter Interview, supra* note 696.
¹⁸⁰⁸ NEB. REV. STAT. § 32-1031(1) (2011).
¹⁸⁰⁹ NEB. REV. STAT. § 32-1031(2) (2011).
¹⁸¹⁰ NEB. REV. STAT. § 32-1034 (2011).
¹⁸¹¹ *Becky Richter Interview, supra* note 696.
¹⁸¹² *Becky Richter Interview, supra* note 696.
¹⁸¹³ *See* NEB. REV. STAT. § 32-1038 (2011).
¹⁸¹⁴ *See* NEB. REV. STAT. § 32-1036 (2011); *see also* Official Rep. of the Bd. of State Canvassers of the State of Neb., Gen.Election, Nov. 2, 2010, *available at* <http://www.sos.ne.gov/elec/pdf/2010%20Gen%20Canvass%20Book%2011-30-Final.pdf> (last visited Mar. 5, 2012).
¹⁸¹⁵ NEV. REV. STAT. § 293B.330(1)(a) (2011); *Ryan High Interview, supra* note 254.
¹⁸¹⁶ NEV. REV. STAT. §§ 293B.330(1)(b)(1)-(3) (2011).
¹⁸¹⁷ NEV. REV. STAT. §§ 293B.330(1)(b)(4), .335(1) (2011).
¹⁸¹⁸ NEV. REV. STAT. § 293B.330(1)(c) (2011).
¹⁸¹⁹ NEV. REV. STAT. § 293B.330(2) (2011).
¹⁸²⁰ NEV. REV. STAT. § 293B.330(3) (2011).
¹⁸²¹ NEV. REV. STAT. §§ 293B.365(1)-(3) (2011).
¹⁸²² NEV. REV. STAT. §§ 293B.380(2)(c), (e) (2011).
¹⁸²³ NEV. REV. STAT. § 293B.380(2)(b) (2011).
¹⁸²⁴ NEV. REV. STAT. § 293B.380(2)(d) (2011).
¹⁸²⁵ NEV. REV. STAT. § 293B.380(2)(f) (2011).
¹⁸²⁶ NEV. REV. STAT. § 293B.380(2)(h) (2011).
¹⁸²⁷ NEV. REV. STAT. § 293B.330(2) (2011).
¹⁸²⁸ NEV. REV. STAT. § 293B.330(1)(b)(3) (2011).
¹⁸²⁹ NEV. REV. STAT. § 293.387(1) (2011).
¹⁸³⁰ NEV. REV. STAT. § 293.387(1)-(3) (2011); *Larry Lomax Interview, supra* note 262.
¹⁸³¹ *Larry Lomax Interview, supra* note 262; *Dan Burk Interview, supra* note 263; *Cindy Elgan Interview, supra* note 265.
¹⁸³² *Dan Burk Interview, supra* note 263.
¹⁸³³ *Id.*
¹⁸³⁴ *Larry Lomax Interview, supra* note 262 *Dan Burk Interview, supra* note 263; *Cindy Elgan Interview, supra* note 265.
¹⁸³⁵ *Larry Lomax Interview, supra* note 262.
¹⁸³⁶ *Dan Burk Interview, supra* note 263.
¹⁸³⁷ *Cindy Elgan Interview, supra* note 265.
¹⁸³⁸ NEV. REV. STAT. § 293.383(1) (2011).
¹⁸³⁹ *Ryan High Interview, supra* note 254.

1840 *Id.*

1841 NEV. REV. STAT. § 293.391(3)-(4) (2011).

1842 N.H. REV. STAT. ANN. § 658:31 (2011).

1843 N.H. REV. STAT. ANN. §§ 659:60 to :61 (2011).

1844 *Anthony Stevens Interview, supra* note 715.

1845 N.H. REV. STAT. ANN. § 659:70 (2011).

1846 N.H. REV. STAT. ANN. § 659:71 (2011).

1847 N.H. REV. STAT. ANN. §§ 659:73(I)(a)-(c) (2011).

1848 N.H. REV. STAT. ANN. §§ 659:73(IV)-(VI) (2011); N. H. DEP'T OF STATE, N. H. ELECTION PROCEDURE MANUAL: 2010-2011 35-36, *available at* <http://www.sos.nh.gov/EPM-10-Online-2.8%20for%20website.pdf> [hereinafter *NH Procedure Manual*]; *Anthony Stevens Interview, supra* note 715.

1849 *Anthony Stevens Interview, supra* note 715.

1850 N.H. REV. STAT. ANN. § 659:95 (2011); *Anthony Stevens Interview, supra* note 715.

1851 N.H. REV. STAT. ANN. §§ 659:98 to :99 (2011).

1852 N.H. REV. STAT. ANN. § 659:75 (2011).

1853 N.H. REV. STAT. ANN. § 659:73(VI) (2011).

1854 N.H. REV. STAT. ANN. § 659:73(IV) (2011); *NH Procedure Manual, supra* note 1848, at 158-61.

1855 *Anthony Stevens Interview, supra* note 715; State of N.H., Moderator's Worksheet 2012 (on file with Verified Voting).

1856 *Anthony Stevens Interview, supra* note 715; State of N.H., Moderator's Worksheet 2012 (on file with Verified Voting).

1857 *Anthony Stevens Interview, supra* note 715.

1858 N.H. REV. STAT. ANN. § 659:81 (2011) *Anthony Stevens Interview, supra* note 715.

1859 *Anthony Stevens Interview, supra* note 715.

1860 *Id.*

1861 *Id.*

1862 *Id.*

1863 N.H. REV. STAT. ANN. §§ 659:102, 33-A:3-a(CXL) (2011); Telephone Interview with Anthony Stevens, Asst. Sec'y of State, N. H. (Mar. 22, 2012) (on file with Verified Voting).

1864 *Anthony Stevens Interview, supra* note 715.

1865 N. H. Dep't of State, N. H. VOTING DISTRICTS AND PAST ELECTION RESULTS, <http://www.sos.nh.gov/election%20stats%20and%20districts.html> (last visited Nov. 11, 2011).

1866 *See NH Procedure Manual, supra* note 1848, at 149-56.

1867 NJ BOARD MEMBER TRAINING MANUAL, *supra* note 283, at 36.

1868 *Id.*

1869 *Id.*

1870 *Id.* at 37.

1871 *Id.* at 38.

1872 *Id.*

1873 *Robert Giles Interview, supra* note 59; *Shirley Manahan Interview, supra* note 279.

1874 N.J. STAT. ANN. § 19:53A-7(g) (West 2011); *see also* N.J. STAT. ANN. § 19:47-2) (West 2011)

1875 *Robert Giles Interview, supra* note 59; *Shirley Manahan Interview, supra* note 279.

1876 N.J. STAT. ANN. §§ 19:19-1 to :20-1 (West 2011).

1877 N.J. STAT. ANN. § 19:19-8 (West 2011).

1878 N.J. STAT. ANN. § 19:19-9 (West 2011).

1879 *Robert Giles Interview, supra* note 59.

1880 *Shirley Manahan Interview, supra* note 279.

1881 NJ BOARD MEMBER TRAINING MANUAL, *supra* note 283, at 36, 38.

1882 N.J. STAT. ANN. § 19:19-14 (West 2011).

1883 *Robert Giles Interview, supra* note 59.

1884 *Shirley Manahan Interview, supra* note 279.

1885 N.M. STAT. ANN. § 1-12-28 (West 2011); *see also* N.M. STAT. ANN. § 1-12-30(A) (West 2011)

1886 *Peggy Carabajal Interview and Janet Collins Interview, supra* note 725.

1887 *Peggy Carabajal Interview, supra* note 725.

1888 *Janet Collins Interview, supra* note 725.

1889 N.M. STAT. ANN. § 1-12-30(A) (West 2011).

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- ¹⁸⁹⁰ N.M. STAT. ANN. §§ 1-12-30(B), -31(A) -32, -34 (West 2011).
¹⁸⁹¹ N.M. STAT. ANN. § 1-12-30.1 (West 2011).
¹⁸⁹² *Peggy Carabajal Interview*, *supra* note 725.
¹⁸⁹³ *Tanya Shelby, Interview* *supra* note 725.
¹⁸⁹⁴ *Janet Collins Interview*, *supra* note 725.
¹⁸⁹⁵ *Id.*
¹⁸⁹⁶ *Peggy Carabajal Interview* and *Tanya Shelby Interview*, *supra* note 725.
¹⁸⁹⁷ *Id.*
¹⁸⁹⁸ *Janet Collins Interview*, *supra* note 725.
¹⁸⁹⁹ N.M. STAT. ANN. §§ 1-13-3, -4 (West 2011).
¹⁹⁰⁰ N.M. STAT. ANN. §§ 1-13-7, -9 (West 2011).
¹⁹⁰¹ N.M. STAT. ANN. § 1-13-13(C) (West 2011).
¹⁹⁰² N.M. STAT. ANN. § 1-13-5 (West 2011).
¹⁹⁰³ N.M. STAT. ANN. § 1-13-16(A) (West 2011).
¹⁹⁰⁴ N.M. STAT. ANN. § 1-13-18 (West 2011).
¹⁹⁰⁵ N.M. STAT. ANN. § 1-12-34 (West 2011).
¹⁹⁰⁶ N.M. STAT. ANN. § 1-13-17 (West 2011); *Bobbi Shearer Interview*, *supra* note 724.
¹⁹⁰⁷ *Peggy Carabajal Interview*, *Tanya Shelby Interview*, and *Janet Collins Interview*, *supra* note 725.
¹⁹⁰⁸ *Janet Collins Interview*, *supra* note 725.
¹⁹⁰⁹ *Anna Svizzero Interview*, *supra* note 730.
¹⁹¹⁰ N.Y. ELEC. LAW § 9-102(1) (McKinney 2011).
¹⁹¹¹ N.Y. ELEC. LAW § 9-102(2)(a) (McKinney 2011).
¹⁹¹² *Id.*
¹⁹¹³ *Id.*
¹⁹¹⁴ *Anna Svizzero Interview*, *supra* note 730.
¹⁹¹⁵ *Dick Work Interview* and *Helen Kiggins Walsh Interview*, *supra* note 731; Email Interview, Susanne Lipari, Poll Worker, Schuyler Cnty. (Apr. 25, 2012) (on file with Verified Voting) [hereinafter *Susanne Lipari Interview*].
¹⁹¹⁶ *Susanne Lipari Interview*, *supra* note 1915.
¹⁹¹⁷ *Helen Kiggins Walsh Interview*, *supra* note 731.
¹⁹¹⁸ *Dick Work Interview*, *supra* note 731.
¹⁹¹⁹ N.Y. ELEC. LAW § 9-106 (McKinney 2011).
¹⁹²⁰ *See id.*, N.Y. ELEC. LAW §§ 9-108(1)-(2) (McKinney 2011).
¹⁹²¹ N.Y. ELEC. LAW § 9-108(2) (McKinney 2011).
¹⁹²² *Anna Svizzero Interview*, *supra* note 730; *Dick Work Interview* and *Helen Kiggins Walsh Interview*, *supra* note 731; *Susanne Lipari Interview*, *supra* note 1915.
¹⁹²³ *Dick Work Interview* and *Helen Kiggins Walsh Interview*, *supra* note 731; *Susanne Lipari Interview*, *supra* note 1915.
¹⁹²⁴ N.Y. ELEC. LAW § 9-206 (McKinney 2011).
¹⁹²⁵ *Id.*
¹⁹²⁶ N.Y. ELEC. LAW § 9-208(3) (McKinney 2011).
¹⁹²⁷ *Id.*
¹⁹²⁸ *See Anna Svizzero Interview*, *supra* note 730.
¹⁹²⁹ *Id.*
¹⁹³⁰ *Id.*
¹⁹³¹ *Id.*; *see also* N.Y. ELEC. LAW § 9-126(1) (McKinney 2011).
¹⁹³² *Susanne Lipari Interview*, *supra* note 1915.
¹⁹³³ *Dick Work Interview*, *supra* note 731.
¹⁹³⁴ *Helen Kiggins Walsh Interview*, *supra* note 731.
¹⁹³⁵ N.C. GEN. STAT. § 163-182.2 (2011), 8 N.C. Admin. Code 06B.0105(a), and *NC Uniformity Report*, *supra* note 300, at 14-1.
¹⁹³⁶ 8 N.C. ADMIN. CODE 10B.0105(g) (2011).
¹⁹³⁷ 8 N.C. ADMIN. CODE 10B.0105(g) (2011).
¹⁹³⁸ N.C. GEN. STAT. § 163-182.1(a)(5) (2011)
¹⁹³⁹ *Deborah Formyduval Interview*, *supra* note 301.
¹⁹⁴⁰ *Michael Perry Interview*, *supra* note 301.
¹⁹⁴¹ 8 N.C. ADMIN. CODE 10B.0105(i) (2011).

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- 1942 8 N.C. ADMIN. CODE 6B.0105(d), 10B.0105(h) (2011); 8 N.C. ADMIN. CODE 10B.0105(h) (2011).
- 1943 8 N.C. ADMIN. CODE 10B.0105(k) (2008); *see also* *Johnnie McLean Interview*, *supra* note 306.
- 1944 *Deborah Formyduval Interview*, *Doyle Teague Interview*, and *Michael Perry Interview*, *supra* note 301.
- 1945 *Deborah Formyduval Interview*, *supra* note 301.
- 1946 *Michael Perry Interview*, *supra* note 301.
- 1947 *NC Uniformity Report*, *supra* note 300 at 3-1.
- 1948 *NC Uniformity Report*, *supra* note 300 at 3-1; *Don Wright Interview*, *supra* note 299.
- 1949 *NC Uniformity Report*, *supra* note 300 at 3-1; *Deborah Formyduval Interview* and *Doyle Teague Interview*, *supra* note 301.
- 1950 *Deborah Formyduval Interview* and *Doyle Teague Interview*, *supra* note 301.
- 1951 *Michael Perry Interview*, *supra* note 301.
- 1952 *NC Uniformity Report*, *supra* note 300 at 3-1.
- 1953 *Id.*
- 1954 *Deborah Formyduval Interview*, *Doyle Teague Interview*, and *Michael Perry Interview*, *supra* note 301.
- 1955 *Michael Perry Interview*, *supra* note 301.
- 1956 *Don Wright Interview*, *supra* note 299; *Deborah Formyduval Interview*, *supra* note 301.
- 1957 N.C. GEN. STAT. § 163-182.5(b) (2011).
- 1958 *Deborah Formyduval Interview*, *Doyle Teague Interview*, and *Michael Perry Interview*, *supra* note 301.
- 1959 *Michael Perry Interview*, *supra* note 301.
- 1960 N.C. GEN. STAT. §§ 163-182(1), (6) (2011).
- 1961 N.C. GEN. STAT. § 163-182.7(a) (2011) and *NC Uniformity Report*, *supra* note 1, at 4-9.
- 1962 *NC Uniformity Report*, *supra* note 300 at 3-2.
- 1963 *NC Uniformity Report*, *supra* note 300 at 3-1; *Johnnie McLean Interview*, *supra* note 306; *Deborah Formyduval Interview*, *Doyle Teague Interview*, and *Michael Perry Interview*, *supra* note 301.
- 1964 8 N.C. ADMIN. CODE 06B.0105(4)(d) (2011); *Johnnie McLean Interview*, *supra* note 306.
- 1965 *Deborah Formyduval Interview*, *Doyle Teague Interview*, and *Michael Perry Interview*, *supra* note 301.
- 1966 *See, e.g.*, Durham County Government – Election Results, http://www.co.durham.nc.us/departments/elec/Elections_Results.html (last visited Oct. 24, 2011); Transylvania County Board of Elections – Election Results Section, <http://transylvaniaselections.org/cgi-bin/Rev6/Code/DisplayPage.pl> (last visited Oct. 24, 2011).
- 1967 *Deborah Formyduval Interview*, *supra* note 301.
- 1968 *Doyle Teague Interview*, *supra* note 301.
- 1969 *Michael Perry Interview*, *supra* note 301.
- 1970 *Id.*
- 1971 N.D. CENT. CODE ANN. § 16.1-15-02 (West 2011).
- 1972 *Jim Silrum Interview*, *supra* note 744; *Kevin Glatt Interview*, *Michael Montplaisir Interview*, and *Val McCloud Interview*, *supra* note 747.
- 1973 N.D. CENT. CODE ANN. § 16.1-15-04 (West 2011).
- 1974 N.D. CENT. CODE ANN. § 16.1-15-06 (West 2011).
- 1975 N.D. CENT. CODE ANN. § 16.1-15-08 (West 2011).
- 1976 N.D. CENT. CODE ANN. § 16.1-15-02 (West 2011).
- 1977 N.D. CENT. CODE ANN. § 16.1-15-02 (West 2011).
- 1978 *Kevin Glatt Interview*, *supra* note 747.
- 1979 *Michael Montplaisir Interview*, *supra* note 747.
- 1980 *Id.*
- 1981 *Id.*
- 1982 *Val McCloud Interview*, *supra* note 747.
- 1983 *Jim Silrum Interview*, *supra* note 744.
- 1984 *Id.*; *Kevin Glatt Interview*, *Michael Montplaisir Interview*, and *Val McCloud Interview*, *supra* note 747.
- 1985 *Id.*
- 1986 N.D. CENT. CODE ANN. § 16.1-15-20 (West 2011).
- 1987 N.D. CENT. CODE ANN. § 16.1-15-24 (West 2011).
- 1988 N.D. CENT. CODE ANN. § 16.1-15-37 (West 2011).
- 1989 N.D. CENT. CODE ANN. § 16.1-15-41 (West 2011).
- 1990 N.D. CENT. CODE ANN. § 16.1-15-44 (West 2011).
- 1991 *Jim Silrum Interview*, *supra* note 744; *Val McCloud Interview*, *supra* note 747.

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- ¹⁹⁹² *Michael Montplaisir Interview*, *supra* note 747.
- ¹⁹⁹³ N.D. CENT. CODE ANN. § 16.1-15-02 (West 2011).
- ¹⁹⁹⁴ N.D. CENT. CODE ANN. § 16.1-15-09(4) (West 2011).
- ¹⁹⁹⁵ N.D. CENT. CODE ANN. § 16.1-15-17 (West 2011).
- ¹⁹⁹⁶ N.D. CENT. CODE ANN. § 16.1-15-32 (West 2011).
- ¹⁹⁹⁷ N.D. CENT. CODE ANN. § 16.1-15-41 (West 2011).
- ¹⁹⁹⁸ N.D. CENT. CODE ANN. § 16.1-15-44 (West 2011); *Jim Silrum Interview*, *supra* note 744.
- ¹⁹⁹⁹ *Kevin Glatt Interview*, *Michael Montplaisir Interview*, and *Val McCloud Interview*, *supra* note 747.
- ²⁰⁰⁰ N.D. SEC’Y OF STATE, VOTING INFORMATION AND CENTRAL ELECTION SYSTEMS, <http://results.sos.nd.gov/resultsCountyList.aspx?text=Race&type=CTYSPEC&map=CTY>.
- ²⁰⁰¹ OHIO REV. CODE ANN. § 3505.26(A)-(E) (West 2011).
- ²⁰⁰² Letter from Jennifer Brunner, Ohio Sec’y of State, to All County Boards of Elections Members, Directors, and Deputy Directors, 3 (Sept. 9, 2008), *available at* <http://www.sos.state.oh.us/SOS/Upload/elections/directives/2008/Dir2008-87.pdf> (last visited Mar. 9, 2012).
- ²⁰⁰³ OHIO REV. CODE ANN. § 3505.31 (West 2011).
- ²⁰⁰⁴ OHIO REV. CODE ANN. § 3505.30 (West 2011).
- ²⁰⁰⁵ OHIO REV. CODE ANN. § 3505.26(A)-(E) (West 2011); *Linda Stutz Interview*, *supra* note 317.
- ²⁰⁰⁶ OHIO REV. CODE ANN. § 3505.26(E) (West 2011).
- ²⁰⁰⁷ *Linda Stutz Interview*, *supra* note 317.
- ²⁰⁰⁸ *Matthew Masterson Interview*, *supra* note 321.
- ²⁰⁰⁹ Letter from Jennifer Brunner, Ohio Sec’y of State, to All County Boards of Elections Members, Directors, and Deputy Directors, 3 (July 21, 2008), *available at* <http://www.sos.state.oh.us/SOS/Upload/elections/directives/2008/Dir2008-57.pdf> (last visited July 6, 2012).
- ²⁰¹⁰ *Linda Stutz Interview*, *Steve Harsman Interview* and *Sue Donohoe Interview*, *supra* note 317.
- ²⁰¹¹ *Steve Harsman Interview* and *Sue Donohoe Interview*, *supra* note 317.
- ²⁰¹² *Id.*
- ²⁰¹³ *Sue Donohoe Interview*, *supra* note 317.
- ²⁰¹⁴ OHIO REV. CODE ANN. § 3505.30 (West 2011).
- ²⁰¹⁵ OHIO REV. CODE ANN. § 3505.32(C)-(D) (West 2011).
- ²⁰¹⁶ OHIO REV. CODE ANN. § 3505.32(D) (West 2011).
- ²⁰¹⁷ OHIO REV. CODE ANN. § 3505.32(C) (West 2011).
- ²⁰¹⁸ *Linda Stutz Interview*, *supra* note 317.
- ²⁰¹⁹ *Steve Harsman Interview*, *supra* note 317.
- ²⁰²⁰ *Sue Donohoe Interview*, *supra* note 317.
- ²⁰²¹ *Linda Stutz Interview*, *supra* note 317.
- ²⁰²² *Steve Harsman Interview*, *supra* note 317.
- ²⁰²³ *Sue Donohoe Interview*, *supra* note 317.
- ²⁰²⁴ OHIO REV. CODE ANN. § 3505.33 (West 2011).
- ²⁰²⁵ OHIO REV. CODE ANN. § 3505.30 (West 2011).
- ²⁰²⁶ OHIO REV. CODE ANN. § 3505.33 (West 2011).
- ²⁰²⁷ *Linda Stutz Interview*, *supra* note 317.
- ²⁰²⁸ *Steve Harsman Interview*, *supra* note 317.
- ²⁰²⁹ *Sue Donohoe Interview*, *supra* note 317.
- ²⁰³⁰ OKLA. STAT. ANN. tit. 26, § 7-132 (2011).
- ²⁰³¹ OKLA. STAT. ANN. tit. 26, § 6-102.1(7) (2011).
- ²⁰³² OKLA. STAT. ANN. tit. 26, § 7-132 (2011).
- ²⁰³³ *Id.*
- ²⁰³⁴ OKLA. STAT. ANN. tit. 26, § 7-132.2 (2011).
- ²⁰³⁵ OKLA. STAT. ANN. tit. 26, § 7-133 (2011); *Carol Learning Interview*, *supra* note 759; *see also Fran Roach Interview*, *supra* note 757.
- ²⁰³⁶ OKLA. STAT. ANN. tit. 26, §§ 7-132.2, 133 (2011).
- ²⁰³⁷ *Shelly Boggs Interview*, *supra* note 758.
- ²⁰³⁸ *Trenna Whitson Interview*, *supra* note 760.
- ²⁰³⁹ *Fran Roach Interview*, *supra* note 757.
- ²⁰⁴⁰ *Id.*; *see also Carol Learning Interview*, *supra* note 759.

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- 2041 *Fran Roach Interview*, *supra* note 757; *see also Carol Learning Interview*, *supra* note 759.
- 2042 *Shelly Boggs Interview*, *supra* note 758.
- 2043 *Trenna Whitson Interview*, *supra* note 760.
- 2044 OKLA. STAT. ANN. tit. 26, § 7-136 (2011); *see also Carol Learning Interview*, *supra* note 759; *Trenna Whitson Interview*, *supra* note 760.
- 2045 OKLA. STAT. ANN. tit. 26, § 7-136 (2011).
- 2046 *Fran Roach Interview*, *supra* note 757.
- 2047 OKLA. STAT. ANN. tit. 26, § 7-136 (2011).
- 2048 *Fran Roach Interview*, *supra* note 757.
- 2049 *Id.*
- 2050 *Id.*
- 2051 OKLA. STAT. ANN. tit. 26, § 7-136 (2011).
- 2052 *Shelly Boggs Interview*, *supra* note 758; *Trenna Whitson Interview*, *supra* note 760.
- 2053 OKLA. STAT. ANN. tit. 26, § 7-132 (2011).
- 2054 OR. REV. STAT. § 254.483(a)-(b) (2011).
- 2055 *Steve Kindred Interview*, *James Morales Interview*, and *Jenine McDermid Interview*, *supra* note 765.
- 2056 *James Morales Interview*, *supra* note 765.
- 2057 OR. REV. STAT. § 254.485(1) (2011).
- 2058 *See* OR. REV. STAT. § 254.485(2) (2011).
- 2059 *Brenda Bayes Interview*, *supra* note 768.
- 2060 OR. REV. STAT. § 254.485(2) (2011).
- 2061 *Oregon Procedures Manual*, *supra* note 764, at 57; *Brenda Bayes Interview*, *supra* note 768.
- 2062 OR. REV. STAT. § 254.485(1) (2011).
- 2063 *Steve Kindred Interview*, *supra* note 765.
- 2064 *Jenine McDermid Interview*, *supra* note 765.
- 2065 *Steve Kindred Interview* and *James Morales Interview*, *supra* note 765.
- 2066 OR. REV. STAT. § 246.410 (2011).
- 2067 OR. ADMIN. R. 165-007-0290(4)(b) (2011).
- 2068 *Oregon Procedures Manual*, *supra* note 764, at 57.
- 2069 *Id.* at 54; *Brenda Bayes Interview*, *supra* note 768.
- 2070 *Oregon Procedures Manual*, *supra* note 764, at 89.
- 2071 *Id.*
- 2072 OR. REV. STAT. § 254.545(1)-(2) (2011); *Brenda Bayes Interview*, *supra* note 768.
- 2073 OR. REV. STAT. § 254.555(1)(a) (2011) *Brenda Bayes Interview*, *supra* note 768.
- 2074 *Brenda Bayes Interview*, *supra* note 768.
- 2075 *Steve Kindred Interview*, *supra* note 765.
- 2076 *James Morales Interview*, *supra* note 765.
- 2077 *Jenine McDermid Interview*, *supra* note 765.
- 2078 *Brenda Bayes Interview*, *supra* note 768.
- 2079 OR. REV. STAT. § 254.535 (2011).
- 2080 *Brenda Bayes Interview*, *supra* note 768.
- 2081 *See, e.g., Oregon Sec’y of State, Official Results, Nov. 2, 2010 General Election, available at* <http://oregonvotes.org/pages/history/archive/nov022010/g2010results.html> (last visited Mar. 30, 2012).
- 2082 *Steve Kindred Interview*, *supra* note 765.
- 2083 *James Morales Interview*, *supra* note 765.
- 2084 *Jenine McDermid Interview*, *supra* note 765.
- 2085 25 PA. CONS. STAT. ANN. §§ 3061, 3031.13(a) (West, WestLaw through 2011 Legis. Sess.); *Shauna Clemmer Interview*, *supra* note 331.
- 2086 25 PA. CONS. STAT. ANN. § 3062 (West, WestLaw through 2011 Legis. Sess.).
- 2087 *Id.*
- 2088 *Id.*
- 2089 *Cheryl Kayrol Interview*, *supra* note 329.
- 2090 25 PA. CONS. STAT. ANN. § 3031.13(a) (West, WestLaw through 2011 Legis. Sess.).
- 2091 *Id.*
- 2092 25 PA. CONS. STAT. ANN. § 3031.13(f) (West, WestLaw through 2011 Legis. Sess.).
- 2093 25 PA. CONS. STAT. ANN. § 3031.13(g) (West, WestLaw through 2011 Legis. Sess.).

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- ²⁰⁹⁴ *Cheryl Kayrol Interview*, *supra* note 329.
- ²⁰⁹⁵ Pa. Sec’y of State, Electronic Voting Systems Flow Chart, at 4 (on file with Verified Voting).
- ²⁰⁹⁶ *Florence Ball Interview* and *Stephanie Singer and Greg Irving Interviews*, *supra* note 329.
- ²⁰⁹⁷ *Id.*
- ²⁰⁹⁸ 25 PA. CONS. STAT. ANN. §§ 3065(a), 3067(b), (c) (West, WestLaw through 2011 Legis. Sess.).
- ²⁰⁹⁹ 25 PA. CONS. STAT. ANN. §§ 3065(c), 3068(b) (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁰⁰ 25 PA. CONS. STAT. ANN. §§ 3061, 3031.13(a) (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁰¹ *Id.*
- ²¹⁰² 25 PA. CONS. STAT. ANN. § 3066 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁰³ *Florence Ball Interview*, *supra* note 329.
- ²¹⁰⁴ *Stephanie Singer and Greg Irving Interviews*, *supra* note 329.
- ²¹⁰⁵ *Cheryl Kayrol Interview*, *supra* note 329.
- ²¹⁰⁶ 25 PA. CONS. STAT. ANN. § 3154(b) (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁰⁷ 25 PA. CONS. STAT. ANN. § 3154(c) (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁰⁸ *Cheryl Kayrol Interview*, *Florence Ball Interview*, and *Stephanie Singer and Greg Irving Interviews*, *supra* note 329.
- ²¹⁰⁹ 25 PA. CONS. STAT. ANN. § 3154(c) (West, WestLaw through 2011 Legis. Sess.).
- ²¹¹⁰ *Cheryl Kayrol Interview*, *supra* note 329.
- ²¹¹¹ *Stephanie Singer and Greg Irving Interviews*, *supra* note 329.
- ²¹¹² *Florence Ball Interview*, *supra* note 329.
- ²¹¹³ 25 PA. CONS. STAT. ANN. §§ 3065(a), 3068(a) (West, WestLaw through 2011 Legis. Sess.).
- ²¹¹⁴ 25 PA. CONS. STAT. ANN. § 3031.13(i) (West, WestLaw through 2011 Legis. Sess.).
- ²¹¹⁵ *Id.*
- ²¹¹⁶ *Cheryl Kayrol Interview*, *Florence Ball Interview*, and *Stephanie Singer and Greg Irving Interviews*, *supra* note 329.
- ²¹¹⁷ R.I. GEN. LAWS § 17-19-32 (West, WestLaw through 2011 Legis. Sess.).
- ²¹¹⁸ R.I. GEN. LAWS § 17-19-31 (West, WestLaw through 2011 Legis. Sess.).
- ²¹¹⁹ R.I. GEN. LAWS § 17-19-33(a) (West, WestLaw through 2011 Legis. Sess.).
- ²¹²⁰ *Michael Narducci Interview*, *supra* note 784.
- ²¹²¹ *Id.*
- ²¹²² R.I. GEN. LAWS § 17-19-11 (West, WestLaw through 2011 Legis. Sess.).
- ²¹²³ *Michael Narducci Interview*, *supra* note 784.
- ²¹²⁴ *Miguel Nuñez Interview*, *supra* note 788; E-mail Interview with Amy Rose Weinreich, Town Clerk, Town of Charlestown (Apr. 26, 2012) (on file with Verified Voting) [hereinafter *Amy Rose Weinreich Interview*].
- ²¹²⁵ *Michael Narducci Interview*, *supra* note 784.
- ²¹²⁶ *Id.*
- ²¹²⁷ *Id.*
- ²¹²⁸ R.I. GEN. LAWS § 17-19-36 (West, WestLaw through 2011 Legis. Sess.).
- ²¹²⁹ R.I. GEN. LAWS § 17-22-5.2 (West, WestLaw through 2011 Legis. Sess.).
- ²¹³⁰ R.I. GEN. LAWS § 17-22-5 (West, WestLaw through 2011 Legis. Sess.).
- ²¹³¹ *Michael Narducci Interview*, *supra* note 784; *Miguel Nuñez Interview*, *supra* note 788.
- ²¹³² R.I. GEN. LAWS § 17-19-33(a)(2) (West, WestLaw through 2011 Legis. Sess.).
- ²¹³³ *Amy Rose Weinreich Interview*, *supra* note 2124; *Miguel Nuñez Interview*, *supra* note 788.
- ²¹³⁴ R.I. GEN. LAWS § 17-22-7(a) (West, WestLaw through 2011 Legis. Sess.).
- ²¹³⁵ R.I. GEN. LAWS § 17-22-7(b)(1)-(4), (6) (West, WestLaw through 2011 Legis. Sess.).
- ²¹³⁶ See R.I. State Board of Elections, Previous Election Results, *available at* <http://www.elections.ri.gov/elections/results/index.php> (last visited Mar. 30, 2012).
- ²¹³⁷ *Chris Whitmire Interview*, *supra* note 792; see also S.C. CODE ANN. § 7-13-1880 (West, WestLaw through 2011 Legis. Sess.).
- ²¹³⁸ S.C. CODE ANN. § 7-13-1880 (West, WestLaw through 2011 Legis. Sess.).
- ²¹³⁹ *Chris Whitmire Interview*, *supra* note 792.
- ²¹⁴⁰ *Id.*
- ²¹⁴¹ S.C. CODE ANN. § 7-13-1890 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁴² S.C. CODE ANN. § 7-13-1150 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁴³ *Joy Brooks Interview*, *supra* note 356.
- ²¹⁴⁴ *Joseph Debney Interview*, *supra* note 356.
- ²¹⁴⁵ *Suffie Jennings Interview*, *supra* note 356.

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- ²¹⁴⁶ *Suffie Jennings Interview, Joy Brooks Interview, and Joseph Debney Interview, supra* note 356.
- ²¹⁴⁷ S.C. CODE ANN. § 7-13-1140 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁴⁸ *Chris Whitmire Interview, supra* note 792.
- ²¹⁴⁹ See S.C. CODE ANN. § 7-17-20 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁵⁰ *Suffie Jennings Interview, Joy Brooks Interview, and Joseph Debney Interview, supra* note 356.
- ²¹⁵¹ *Suffie Jennings Interview, supra* note 356.
- ²¹⁵² *Joseph Debney Interview, supra* note 356.
- ²¹⁵³ S.C. CODE ANN. § 7-17-80 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁵⁴ S.C. CODE ANN. § 7-17-100 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁵⁵ S.C. CODE ANN. § 7-17-240 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁵⁶ *Suffie Jennings Interview, Joy Brooks Interview, and Joseph Debney Interview, supra* note 356.
- ²¹⁵⁷ See D. A. BUELL ET AL., AUDITING A DRE-BASED ELECTION IN SOUTH CAROLINA 3 (2011), available at http://www.usenix.org/event/evt2011/tech/final_files/Buell.pdf.
- ²¹⁵⁸ *Id.*
- ²¹⁵⁹ *Chris Whitmire Interview, supra* note 792.
- ²¹⁶⁰ *Id.*
- ²¹⁶¹ *Id.*
- ²¹⁶² *Suffie Jennings Interview, Joy Brooks Interview, and Joseph Debney Interview, supra* note 356.
- ²¹⁶³ *Suffie Jennings Interview, supra* note 356.
- ²¹⁶⁴ *Joseph Debney Interview, supra* note 356.
- ²¹⁶⁵ *Joy Brooks Interview, supra* note 356.
- ²¹⁶⁶ S.C. CODE ANN. § 7-17-90 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁶⁷ S.C. CODE ANN. § 7-17-320 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁶⁸ South Carolina State Election Commission, Election Returns, http://www.scvotes.org/2010/09/08/election_results (last visited Jan. 4, 2012).
- ²¹⁶⁹ S.D. CODIFIED LAWS § 12-17B-9 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁷⁰ S.D. CODIFIED LAWS § 12-17B-13 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁷¹ S.D. CODIFIED LAWS § 12-20-21 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁷² S.D. CODIFIED LAWS § 12-20-2 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁷³ S.D. CODIFIED LAWS § 12-20-32 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁷⁴ S.D. CODIFIED LAWS § 12-20-38 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁷⁵ *Paula Jones Interview and Shellie Baumgart Interview, supra* note 800.
- ²¹⁷⁶ *Id.*
- ²¹⁷⁷ *Shellie Baumgart Interview, supra* note 800.
- ²¹⁷⁸ See S.D. CODIFIED LAWS § 12-20-13 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁷⁹ E-mail Interview with Aaron Lorenzen, Dir. of Elections, S.D. Sec’y of State’s Office (Jan. 24, 2012) (on file with Verified Voting) [hereinafter *Aaron Lorenzen Interview*].
- ²¹⁸⁰ S.D. CODIFIED LAWS § 12-20-38.1 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁸¹ *Id.*
- ²¹⁸² *Aaron Lorenzen Interview, supra* note 2179.
- ²¹⁸³ S.D. CODIFIED LAWS § 12-17B-13 (West, WestLaw through 2011 Legis. Sess.). See also *Aaron Lorenzen Interview, supra* note 2179.
- ²¹⁸⁴ S.D. CODIFIED LAWS § 12-20-13 (West, WestLaw through 2011 Legis. Sess.); see also *Aaron Lorenzen Interview, supra* note 2179.
- ²¹⁸⁵ *Paula Jones Interview, Shellie Baumgart Interview, and Bob Litz Interview, supra* note 800.
- ²¹⁸⁶ TENN CODE ANN. § 2-7-130(a)(1)(B), (a)(1)(D) (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁸⁷ TENN CODE ANN. § 2-7-130(a)(2) (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁸⁸ TENN CODE ANN. § 2-7-130(a)(3) (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁸⁹ *Tre Hargett Interview, supra* note 367.
- ²¹⁹⁰ *Id.*; see also *Verified Voting Verifier, Tennessee*, VERIFIEDVOTING.ORG, <http://www.verifiedvoting.org/verifier/map.php?&ec=all&year=2010&state=Tennessee> (last visited Mar. 15, 2012).
- ²¹⁹¹ TENN CODE ANN. § 2-7-129 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁹² TENN CODE ANN. § 2-7-138 (West, WestLaw through 2011 Legis. Sess.).
- ²¹⁹³ *Tre Hargett Interview, supra* note 367.
- ²¹⁹⁴ TENN CODE ANN. § 2-8-107(a) (West, WestLaw through 2011 Legis. Sess.).

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- 2195 *Tre Hargett Interview*, *supra* note 367.
- 2196 TENN. CODE ANN. § 2-8-101(a) (West, WestLaw through 2011 Legis. Sess.).
- 2197 *Tre Hargett Interview*, *supra* note 367.
- 2198 TENN. CODE ANN. § 2-8-105 (West, WestLaw through 2011 Legis. Sess.).
- 2199 *Tre Hargett Interview*, *supra* note 367.
- 2200 TENN. CODE ANN. § 2-8-106 (West, WestLaw through 2011 Legis. Sess.).
- 2201 TEX. ELEC. CODE ANN. §§ 127.066(c), .067(b) (West, WestLaw through 2011 Legis. Sess.).
- 2202 TEX. ELEC. CODE ANN. § 127.125(b) (West, WestLaw through 2011 Legis. Sess.).
- 2203 TEX. ELEC. CODE ANN. § 127.125(c) (West, WestLaw through 2011 Legis. Sess.).
- 2204 TEX. ELEC. CODE ANN. § 127.128 (West, WestLaw through 2011 Legis. Sess.).
- 2205 TEX. ELEC. CODE ANN. § 127.1301 (West, WestLaw through 2011 Legis. Sess.).
- 2206 TEX. ELEC. CODE ANN. § 127.131(a), (b) (West, WestLaw through 2011 Legis. Sess.).
- 2207 TEX. ELEC. CODE ANN. § 127.132 (b) (West, WestLaw through 2011 Legis. Sess.).
- 2208 TEX. ELEC. CODE ANN. § 127.157(b) (West, WestLaw through 2011 Legis. Sess.).
- 2209 TEX. ELEC. CODE ANN. § 127.157(c) (West, WestLaw through 2011 Legis. Sess.).
- 2210 TEX. ELEC. CODE ANN. § 127.155(a) (West, WestLaw through 2011 Legis. Sess.).
- 2211 TEX. ELEC. CODE ANN. § 127.132(b) (West, WestLaw through 2011 Legis. Sess.).
- 2212 TEX. ELEC. CODE ANN. § 127.156 (West, WestLaw through 2011 Legis. Sess.).
- 2213 *Steven Vickers Interview*, *supra* note 378.
- 2214 *Id.*
- 2215 *Id.*
- 2216 *Id.*
- 2217 *Glenda Denton Interview*, *supra* note 378.
- 2218 *Id.*
- 2219 *Id.*
- 2220 *Id.*
- 2221 TEX. ELEC. CODE ANN. § 65.014(b) (West, WestLaw through 2011 Legis. Sess.).
- 2222 *Elizabeth Winn Interview*, *supra* note 379.
- 2223 TEX. ELEC. CODE ANN. § 65.013(b) (West, WestLaw through 2011 Legis. Sess.).
- 2224 TEX. ELEC. CODE ANN. § 67.004(b), (b-1) (West, WestLaw through 2011 Legis. Sess.).
- 2225 TEX. ELEC. CODE ANN. § 67.004(d) (West, WestLaw through 2011 Legis. Sess.).
- 2226 *Id.*
- 2227 TEX. ELEC. CODE ANN. § 67.004(f) (West, WestLaw through 2011 Legis. Sess.).
- 2228 TEX. ELEC. CODE ANN. § 129.002(b) (West, WestLaw through 2011 Legis. Sess.).
- 2229 TEX. ELEC. CODE ANN. § 127.201(a) (West, WestLaw through 2011 Legis. Sess.).
- 2230 TEX. ELEC. CODE ANN. § 127.201(e) (West, WestLaw through 2011 Legis. Sess.).
- 2231 *Texas 2010 Advisory*, *supra* note 376, at (4)(c)(i).
- 2232 TEX. ELEC. CODE ANN. § 125.064 (West, WestLaw through 2011 Legis. Sess.).
- 2233 *See* Office of the Utah Lieutenant Governor, Election Policy (Oct. 17, 2006) at 5.3.3.1 *available at* <http://verifiedvoting.org/downloads/UTaudit.pdf>.
- 2234 *Id.* at 5.4.3.
- 2235 UTAH CODE ANN. § 20A-4-201(4) (West, WestLaw through 2011 Legis. Sess.).
- 2236 *See Generally* UTAH CODE ANN. § 20A-3 (West, WestLaw through 2011 Legis. Sess.).
- 2237 *Amber Miller Interview*, *supra* note 395.
- 2238 *Norma Brunson Interview*, *supra* note 395.
- 2239 *Marla Young Interview*, *supra* note 395.
- 2240 *Amber Miller Interview*, *Norma Brunson Interview*, and *Marla Young Interview*, *supra* note 395.
- 2241 *Amber Miller Interview*, *supra* note 395.
- 2242 *Marla Young Interview*, *supra* note 395.
- 2243 UTAH CODE ANN. §§ 20A-5-404(1)(b), (2)(a), (2)(d), (2)(f)-(g) (West, WestLaw through 2011 Legis. Sess.).
- 2244 *Amber Miller Interview*, *supra* note 395.
- 2245 *Norma Brunson Interview*, *supra* note 395.
- 2246 *Marla Young Interview*, *supra* note 395.
- 2247 UTAH CODE ANN. § 20A-4-303(1)(a) (West, WestLaw through 2011 Legis. Sess.).
- 2248 UTAH CODE ANN. §§ 20A-4-304(2)(a)(i), (v), (vi) (West, WestLaw through 2011 Legis. Sess.).
- 2249 *Amber Miller Interview* and *Marla Young Interview*, *supra* note 395.

2250 *Norma Brunson Interview*, *supra* note 395.

2251 *Amber Miller Interview*, *Norma Brunson Interview*, and *Marla Young Interview*, *supra* note 395.

2252 *Amber Miller Interview*, *supra* note 395.

2253 *Marla Young Interview*, *supra* note 395.

2254 *Id.*

2255 UTAH CODE ANN. § 20A-4-304(2)(c)(iii) (West, WestLaw through 2011 Legis. Sess.).

2256 VT. STAT. ANN. tit. 17 § 2584 (West, WestLaw through 2011 Legis. Sess.).

2257 VT. STAT. ANN. tit. 17 § 2586(1) (West, WestLaw through 2011 Legis. Sess.).

2258 VT. STAT. ANN. tit. 17 §§ 2586(2), 2588 (West, WestLaw through 2011 Legis. Sess.).

2259 VT. STAT. ANN. tit. 17 §§ 2586(3), 2588 (West, WestLaw through 2011 Legis. Sess.).

2260 VT. STAT. ANN. tit. 17 §§ 2588(a), (b) (West, WestLaw through 2011 Legis. Sess.).

2261 *Valerie Bourgois Interview*, *supra* note 838; *Donna Kinville Interview* and *Carol Richards Interview*, *supra* note 837.

2262 *Valerie Bourgois Interview*, *supra* note 838; *Donna Kinville Interview* and *Carol Richards Interview*, *supra* note 837.

2263 VT. STAT. ANN. tit. 17 § 2588(c) (West, WestLaw through 2011 Legis. Sess.).

2264 VT. STAT. ANN. tit. 17 § 2590(a) (West, WestLaw through 2011 Legis. Sess.).

2265 VT. STAT. ANN. tit. 17 § 2588 (c) (West, WestLaw through 2011 Legis. Sess.).

2266 VT. STAT. ANN. tit. 17 § 2507 (West, WestLaw through 2011 Legis. Sess.).

2267 VT. STAT. ANN. tit. 17 § 2583(a) (West, WestLaw through 2011 Legis. Sess.).

2268 *Id.*

2269 VT. STAT. ANN. tit. 17 § 2583(b) (West, WestLaw through 2011 Legis. Sess.).

2270 *Kathleen Scheele Interview*, *supra* note 1020.

2271 *Valerie Bourgois Interview*, *supra* note 838; *Donna Kinville Interview* and *Carol Richards Interview*, *supra* note 837.

2272 *Valerie Bourgois Interview*, *supra* note 838; *Carol Richards Interview*, *supra* note 837.

2273 *Id.*

2274 VT. STAT. ANN. tit. 17 § 2592(h) (West, WestLaw through 2011 Legis. Sess.).

2275 *Kathleen Scheele Interview*, *supra* note 1020.

2276 *Id.*

2277 *Id.*

2278 VT. STAT. ANN. tit. 17 § 2588(c) (West, WestLaw through 2011 Legis. Sess.).

2279 *Kathleen Scheele Interview*, *supra* note 1020.

2280 VA. CODE ANN. § 24.2-654 (West, WestLaw through 2011 Legis. Sess.).

2281 VA. CODE ANN. § 24.2-657 (West, WestLaw through 2011 Legis. Sess.).

2282 *Id.*

2283 *Id.*

2284 *Diana Dutton Interview*, *supra* note 413.

2285 VA. CODE ANN. § 24.2-666 (West, WestLaw through 2011 Legis. Sess.).

2286 VA. CODE ANN. § 24.2-645 (West, WestLaw through 2011 Legis. Sess.).

2287 VA. CODE ANN. § 24.2-665(A) (West, WestLaw through 2011 Legis. Sess.).

2288 VA. CODE ANN. § 24.2-662 (West, WestLaw through 2011 Legis. Sess.).

2289 *Bobbi Morgan Interview*, *supra* note 417.

2290 VA. CODE ANN. § 24.2-667 (West, WestLaw through 2011 Legis. Sess.).

2291 VA. CODE ANN. § 24.2-668(A) (West, WestLaw through 2011 Legis. Sess.); *Susan Lee Interview*, *supra* note 409.

2292 VA. CODE ANN. § 24.2-658 (West, WestLaw through 2011 Legis. Sess.).

2293 *See* VA. CODE ANN. § 24.2-657 (West, WestLaw through 2011 Legis. Sess.).

2294 *Id.*; *Susan Lee Interview*, *supra* note 409.

2295 *Diana Dutton Interview*, *supra* note 413.

2296 VA. CODE ANN. § 24.2-661 (West, WestLaw through 2011 Legis. Sess.).

2297 *Id.*

2298 VA. CODE ANN. § 24.2-662 (West, WestLaw through 2011 Legis. Sess.).

2299 *Bobbi Morgan Interview*, *supra* note 417.

2300 VA. CODE ANN. § 24.2-671 (West, WestLaw through 2011 Legis. Sess.).

2301 *Diana Dutton Interview*, *supra* note 413.

2302 *Bobbi Morgan Interview*, *supra* note 417.

2303 E-mail Interview with J. Kirk Showalter, General Registrar, City of Richmond (Apr. 19, 2012) (on file with Verified Voting) [hereinafter *Kirk Showalter Interview*].

2304 *Id.*

2305 VA. CODE ANN. § 24.2-672 (West, WestLaw through 2011 Legis. Sess.).

2306 VA. CODE ANN. § 24.2-671 (West, WestLaw through 2011 Legis. Sess.).

2307 *Diana Dutton Interview*, *supra* note 413; *Bobbi Morgan Interview*, *supra* note 417.

2308 *Kirk Showalter Interview*, *supra* note 2303.

2309 *Diana Dutton Interview*, *supra* note 413.

2310 VA. CODE ANN. § 24.2-658 (West, WestLaw through 2011 Legis. Sess.).

2311 VA. CODE ANN. § 24.2-671 (West, WestLaw through 2011 Legis. Sess.).

2312 *See* Virginia State Board of Elections, “Election Results,” *available at* <http://www.sbe.virginia.gov/cms/Index.html>.

2313 *See* WASH. REV. CODE ANN. § 29A.40.010 (West, WestLaw through 2011 Legis. Sess.). *See also* Washington Secretary of State website *available at* <http://wei.secstate.wa.gov/osos/en/voterinformation/Pages/VotebyMailFAQ.aspx>

2314 WASH. REV. CODE ANN. § 29A.40.160(1) (West, WestLaw through 2011 Legis. Sess.).

2315 Washington Sec’y of State, Elections Training Materials, ch. 4 at 11, 12, *available at* http://www.sos.wa.gov/_assets/elections/Chapter%204.pdf (last visited Mar. 24, 2012) [*hereinafter* *WA Training Materials*].

2316 WASH. REV. CODE ANN. § 29A.40.160(13) (West, WestLaw through 2011 Legis. Sess.).

2317 *WA Training Materials*, *supra* note 2315, at 11-12.

2318 WASH. REV. CODE § 29A.60.060 (West, WestLaw through 2011 Legis. Sess.).

2319 WASH. REV. CODE ANN. § 29A.40.160(13) (West, WestLaw through 2011 Legis. Sess.); *WA Training Materials*, *supra* note 2315, at 11.

2320 WASH. REV. CODE ANN. § 29A.60.120 (West, WestLaw through 2011 Legis. Sess.).

2321 WASH. REV. CODE ANN. § 29A.60.160 (West, WestLaw through 2011 Legis. Sess.).

2322 *Garth Fell Interview*, *supra* note 856.

2323 *Mila Jury Interview*, *supra* note 856.

2324 WASH. REV. CODE ANN. § 29A.60.120(2) (West, WestLaw through 2011 Legis. Sess.); *see also* *Garth Fell Interview* and *Mila Jury Interview*, *supra* note 856.

2325 WASH. REV. CODE ANN. § 29A.40.010 (West, WestLaw through 2011 Legis. Sess.).

2326 *WA Training Materials*, *supra* note 2315, at 14.

2327 *Id.*

2328 *Id.*

2329 *Garth Fell Interview* and *Mila Jury Interview*, *supra* note 856.

2330 *Carolyn Myers Interview*, *supra* note 857.

2331 WASH. REV. CODE ANN. § 29A.40.110 (West, WestLaw through 2011 Legis. Sess.).

2332 WASH. REV. CODE ANN. §§ 29A.60.230, 29A.60.235, (West, WestLaw through 2011 Legis. Sess.).

2333 *Garth Fell Interview* and *Mila Jury Interview*, *supra* note 856.

2334 *Carolyn Myers Interview*, *supra* note 857.

2335 WASH. REV. CODE ANN. § 29A.40.130 (West, WestLaw through 2011 Legis. Sess.), WASH. ADMIN. CODE 434-250-130(1)-(2) (2007).

2336 *Garth Fell Interview*, *supra* note 856.

2337 *Mila Jury Interview*, *supra* note 856.

2338 WASH. REV. CODE ANN. § 29A.60.070 (West, WestLaw through 2011 Legis. Sess.); *WA Training Materials*, *supra* note 2315, at 28.

2339 WASH. REV. CODE ANN. § 29A.16.040(2) (West, WestLaw through 2011 Legis. Sess.).

2340 *Garth Fell Interview* and *Mila Jury Interview*, *supra* note 856.

2341 *Carolyn Myers Interview*, *supra* note 857.

2342 *Garth Fell Interview*, *supra* note 856.

2343 *Mila Jury Interview*, *supra* note 856.

2344 WASH. REV. CODE ANN. §§ 29A.60.190, 29A.60.200 (West, WestLaw through 2011 Legis. Sess.).

2345 WASH. REV. CODE ANN. § 29A.60.210 (West, WestLaw through 2011 Legis. Sess.).

2346 *WA Training Materials*, *supra* note 2315, at 28.

2347 *Garth Fell Interview* and *Mila Jury Interview*, *supra* note 856.

2348 *Carolyn Myers Interview*, *supra* note 857.

2349 *Sheryl Moss Interview*, *supra* note 850.

2350 *Garth Fell Interview*, *supra* note 856.

2351 *Mila Jury Interview*, *supra* note 856.

2352 *Id.*; WASH. REV. CODE ANN. § 29A.60.070 (West, WestLaw through 2011 Legis. Sess.).

2353 WASH. REV. CODE ANN. § 29A.60.235 (West, WestLaw through 2011 Legis. Sess.).

2354 WASH. REV. CODE ANN. § 29A.40.130 (West, WestLaw through 2011 Legis. Sess.).

2355 *Id.*

2356 *Garth Fell Interview* and *Mila Jury Interview*, *supra* note 856.

2357 W. VA. CODE ANN. § 3-4A-19(k) (West, WestLaw through 2011 Legis. Sess.).

2358 *Id.*

2359 W. VA. CODE ANN. § 3-4A-19(g) (West, WestLaw through 2011 Legis. Sess.); *Marylou Myers Interview* and *Brian Wood Interview*, *supra* note 427.

2360 W. VA. CODE ANN. § 3-4A-19(j) (West, WestLaw through 2011 Legis. Sess.); *Bonnie Woodfall Interview*, *supra* note 427.

2361 W. VA. CODE ANN. § 3-4A-19(k) (West, WestLaw through 2011 Legis. Sess.).

2362 *Bonnie Woodfall Interview*, *supra* note 427.

2363 W. Va. Sec’y of State, Election Day Best Practices (2006 poll worker training presentation), *available at* <http://www.wvsos.com/elections/eday/PollWorkerTraining2006-iVotronicupdated.pdf> (last visited Dec. 12, 2011).

2364 W. VA. CODE ANN. § 3-4A-19(g) (West, WestLaw through 2011 Legis. Sess.).

2365 Telephone Interview with Dave Nichols, Manager of Elections, W. Va. Sec’y of State (May 22, 2012) (on file with Verified Voting) [hereinafter *Follow-up Interview with Dave Nichols*].

2366 W. VA. CODE ANN. § 3-6-6(b) (West, WestLaw through 2011 Legis. Sess.).

2367 W. VA. CODE ANN. § 3-6-6(c)(4) (West, WestLaw through 2011 Legis. Sess.).

2368 W. VA. CODE ANN. §§ 3-6-8, 3-5-15(c) (West, WestLaw through 2011 Legis. Sess.).

2369 *Follow-up Interview with Dave Nichols*, *supra* note 2365.

2370 W. VA. CODE ANN. § 3-4A-27(c)(1) (West, WestLaw through 2011 Legis. Sess.).

2371 *Marylou Myers Interview* and *Brian Wood Interview*, *supra* note 427.

2372 W. VA. CODE ANN. § 3-4A-27(3) (West, WestLaw through 2011 Legis. Sess.).

2373 *Bonnie Woodfall Interview*, *supra* note 427.

2374 W. VA. CODE ANN. § 3-4A-27(e) (West, WestLaw through 2011 Legis. Sess.); *Bonnie Woodfall Interview*, *supra* note 427.

2375 W. VA. CODE ANN. § 3-4A-19(l) (West, WestLaw through 2011 Legis. Sess.).

2376 W. VA. CODE ANN. § 3-6-6(b)-(c) (West, WestLaw through 2011 Legis. Sess.).

2377 *Marylou Myers Interview*, *supra* note 427.

2378 *Brian Wood Interview*, *supra* note 427.

2379 W. VA. CODE ANN. § 3-4A-19(g) (West, WestLaw through 2011 Legis. Sess.).

2380 W. VA. CODE ANN. § 3-4A-19(k) (West, WestLaw through 2011 Legis. Sess.).

2381 *Bonnie Woodfall Interview*, *supra* note 427.

2382 W. VA. CODE ANN. § 3-6-9(a)(1) (West, WestLaw through 2011 Legis. Sess.).

2383 W. VA. CODE ANN. § 3-6-9(a)(6) (West, WestLaw through 2011 Legis. Sess.).

2384 W. VA. CODE ANN. § 3-4A-28(d) (West, WestLaw through 2011 Legis. Sess.).

2385 W. VA. CODE ANN. § 3-4A-29(1) (West, WestLaw through 2011 Legis. Sess.).

2386 *Id.*

2387 W. VA. CODE ANN. § 3-6-9(i) (West, WestLaw through 2011 Legis. Sess.).

2388 W. VA. CODE ANN. § 3-6-10 (West, WestLaw through 2011 Legis. Sess.); *Dave Nichols Interview*, *supra* note 431.

2389 W. VA. CODE ANN. § 3-4A-27(e) (West, WestLaw through 2011 Legis. Sess.).

2390 *Dave Nichols Interview*, *supra* note 431.

2391 *Marylou Myers Interview*, *supra* note 427.

2392 *Brian Wood Interview*, *supra* note 427.

2393 *Bonnie Woodfall Interview*, *supra* note 427.

2394 WIS. STAT. ANN. § 7.51(2)(a) (West, WestLaw through 2011 Legis. Sess.).

2395 *Ross Hein Interview*, *supra* note 1046.

2396 *Lisa Weiner Interview*, *Kim Pytleski Interview* and *Chris Teske Interview*, *supra* note 885.

2397 WIS. STAT. ANN. § 5.85(2) (West, WestLaw through 2011 Legis. Sess.).

2398 WIS. STAT. ANN. § 7.51(2)(d) (West, WestLaw through 2011 Legis. Sess.); *Ross Hein Interview*, *supra* note 1046.

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- 2399 WIS. STAT. ANN. § 7.51(2)(d) (West, WestLaw through 2011 Legis. Sess.).
- 2400 WIS. STAT. ANN. § 7.51(4)(a) (West, WestLaw through 2011 Legis. Sess.).
- 2401 *Kim Pytleski Interview* and *Chris Teske Interview*, *supra* note 885.
- 2402 *Lisa Weiner Interview*, *supra* note 885.
- 2403 WIS. STAT. ANN. § 5.89 (West, WestLaw through 2011 Legis. Sess.).
- 2404 WIS. STAT. ANN. § 7.51(5)(a)(4) (West, WestLaw through 2011 Legis. Sess.).
- 2405 *Ross Hein Interview*, *supra* note 1046.
- 2406 *Id.*; *Lisa Weiner Interview*, *Kim Pytleski Interview* and *Chris Teske Interview*, *supra* note 885.
- 2407 WIS. STAT. ANN. § 7.51(2)(c) (West, WestLaw through 2011 Legis. Sess.).
- 2408 WIS. STAT. ANN. § 7.51(2)(c) (West, WestLaw through 2011 Legis. Sess.).
- 2409 WIS. STAT. ANN. § 7.51(2)(e) (West, WestLaw through 2011 Legis. Sess.); *see also* *Ross Hein Interview*, *supra* note 1046.
- 2410 WIS. STAT. ANN. § 7.51(2)(e) (West, WestLaw through 2011 Legis. Sess.).
- 2411 WIS. STAT. ANN. § 5.86(2) (West, WestLaw through 2011 Legis. Sess.); *see also* *Ross Hein Interview*, *supra* note 1046.
- 2412 *Ross Hein Interview*, *supra* note 1046.
- 2413 WIS. STAT. ANN. § 7.60(3) (West, WestLaw through 2011 Legis. Sess.).
- 2414 *Ross Hein Interview*, *supra* note 1046.
- 2415 *Lisa Weiner Interview*, *Kim Pytleski Interview* and *Chris Teske Interview*, *supra* note 885.
- 2416 WIS. STAT. ANN. § 7.60(4)(c) (West, WestLaw through 2011 Legis. Sess.).
- 2417 WIS. STAT. ANN. § 7.60(5)(a) (West, WestLaw through 2011 Legis. Sess.); *Ross Hein Interview*, *supra* note 1046.
- 2418 WIS. STAT. ANN. § 7.51(4)(a) (West, WestLaw through 2011 Legis. Sess.).
- 2419 WIS. STAT. ANN. § 7.51(4)(b) (West, WestLaw through 2011 Legis. Sess.); *Ross Hein Interview*, *supra* note 1046.
- 2420 *Chris Teske Interview*, *supra* note 885.
- 2421 *Lisa Weiner Interview*, *supra* note 885.
- 2422 *Kim Pytleski Interview*, *supra* note 885.
- 2423 WYO. ADMIN. CODE Ch. 13(5)(a) (2009); *see also* *Lori Klassen Interview*, *supra* note 892.
- 2424 WYO. STAT. ANN. § 22-14-102 (2011); *Chris Lindsey Interview*, *Amanda Hutchinson Interview*, and *Hans Odde Interview*, *supra* note 889.
- 2425 WYO. STAT. ANN. § 22-14-105 (2011).
- 2426 *Chris Lindsey Interview*, and *Amanda Hutchinson Interview*, *supra* note 889.
- 2427 WYO. STAT. ANN. § 22-14-106(a), (b) (2011).
- 2428 WYO. ADMIN. CODE Ch. 13(5)(e) (2009).
- 2429 WYO. STAT. ANN. § 22-14-107 (2011).
- 2430 WYO. STAT. ANN. § 22-14-111 (2011); *Chris Lindsey Interview*, *Amanda Hutchinson Interview*, and *Hans Odde Interview*, *supra* note 889.
- 2431 WYO. ADMIN. CODE Ch. 13(5)(b), (c) (2009).
- 2432 WYO. ADMIN. CODE Ch. 13(6)(a) (2009).
- 2433 WYO. ADMIN. CODE Ch. 13(6)(b) (2009).
- 2434 WYO. STAT. ANN. § 22-14-103 (2011).
- 2435 WYO. STAT. ANN. § 22-16-103(a) (2011).
- 2436 WYO. ADMIN. CODE Ch. 13(6)(a)(iii) (2009).
- 2437 WYO. STAT. ANN. § 22-16-103(c)(ii) (2011).
- 2438 WYO. STAT. ANN. § 22-16-103(c)(iii), (iv) (2011).
- 2439 WYO. STAT. ANN. § 22-16-103(c)(v) (2011).
- 2440 WYO. STAT. ANN. § 22-16-116 (2011).
- 2441 WYO. STAT. ANN. § 22-16-118 (2011).
- 2442 *Chris Lindsey Interview*, *Amanda Hutchinson Interview*, and *Hans Odde Interview*, *supra* note 889.
- 2443 *Chris Lindsey Interview*, *supra* note 889.
- 2444 WYO. STAT. ANN. § 22-14-102 (2011).
- 2445 WYO. STAT. ANN. § 22-16-107 (2011).