



LEAGUE OF WOMEN VOTERS®
OF INDIANA

WHITE PAPER REPORT

SECURING OUR ELECTIONS: VERIFIABLE BALLOTS

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SECURING OUR ELECTIONS: VERIFIABLE BALLOTS

THE ISSUE

The League's commitment to every citizen's right to vote, and to have that vote count, calls on us in Indiana to work on multiple fronts--redistricting reform, voter registration procedures, voter eligibility, voter turnout, voting and election procedures. This paper, however, focuses solely on securing our elections. All our other efforts toward making our democracy work will be for naught if we cannot verify our election results. And we have three months to do so before the mid-term elections. Auditable election results are essential to maintaining voter confidence in the integrity of the process.

Threats to secure, verifiable elections include

- aging technology,
- old equipment,
- potential hacking of voting machines and registration databases,
- inability to verify electronic votes,
- lack of money allocated to replace voting machines.

BACKGROUND

Vulnerabilities in election infrastructure

<https://www.americanprogress.org/issues/democracy/reports/2018/02/12/446336/election-security-50-states/>

In August 2017, the Center for American Progress released a report entitled "9 Solutions for Securing America's Elections," laying out nine vulnerabilities in election infrastructure and solutions to help improve election security in time for the 2018 and 2020 elections.

This 2018 report builds on the 2017 analysis to provide an overview of state compliance with baseline standards to protect their elections from hacking and machine malfunction.

The baseline standards:

1. Minimum cybersecurity standards for voter registration systems
2. Voter-verified paper ballots
3. Post-election audits that test election results
4. Ballot accounting and reconciliation
5. Return of voted paper absentee ballots
6. Voting machine certification requirements
7. Pre-election logic and accuracy testing

Only two states received Fs on election security –Indiana and Florida.

Aging technology, old equipment, potential for hacking...

As the Brennan Center for Justice notes, technology has changed dramatically in the last decade, but in a survey of election officials nationwide, they found that 41 states likely will use voting machines this fall that are more than a decade old.

Some are even using systems that still run Windows 2000. Officials in 33 states told [the Brennan Center] they need to replace their voting machines by 2020, and the majority don't have the money to do so. These old machines are a problem because as they age, they become more difficult to repair and are more vulnerable to breakdowns. They are often more easily hacked than newer models because they can run on old software like Windows 2000 that no longer receives security patches, and they usually haven't been tested to today's more rigorous security certification standards.

With foreign interests attempting to hack our voting infrastructure, including machines and registration databases, upgrading these outdated systems is critical to protecting the integrity of our elections.

Inability to verify votes and to audit election results

<https://www.brennancenter.org/analysis/americas-voting-machines-risk-an-update>

(3/8/2018, by Lawrence Norden and Wilfred U. Codrington III)

Security experts have long warned about the dangers of continuing to use paperless electronic voting machines. These machines do not produce a paper record that can be reviewed by the voter, and they do not allow election officials and the public to confirm electronic vote totals. Therefore, votes cast on them could be lost or changed without notice. Moreover, if officials discover that voting machine software has been corrupted or data has been lost, it may be impossible to recover the lost votes without a paper record.

While many paperless systems were replaced in the years before the 2016 election, since then, the country has made remarkably little progress — even despite repeated warnings from intelligence officials and security experts that voter verified paper records are a critical backstop against cyberattacks.

Numerous Indiana counties are still relying on paperless voting machines.

<http://www.brennancenter.org/blog/smart-and-effective-way-safeguard-elections> A Smart and Effective Way to Safeguard Elections: Risk-limiting audits are an efficient way to protect against tampering with the vote, Christopher Deluzio, July 25, 2018

[Risk-limiting audit: A risk-limiting audit is a type of post-election audit, during which a random sample of ballots is selected and the selections on the ballots are compared to the electronic “cast vote record” inside a voting machine. In a decisive contest, a small sample of ballots can be audited, while a close race will require a comparatively larger sample.]

Marion County, Indiana, conducted a test risk-limiting audit in May.

Funding to upgrade voting machines

The Help America Vote Act (HAVA) passed by Congress in 2002 was seen as a response to serious flaws in voting systems, voter access and election administration revealed during the 2000 election. HAVA provided states with more than \$2 billion to replace obsolete voting equipment and created new standards for certification. By committing the United States to a more sophisticated infrastructure, however, Congress also created an ongoing financial commitment that has not been met.

On March 23, 2018, Congress approved \$380 million “to improve the administration of elections for Federal office, including to enhance election technology and make election security improvements.”

Federal funds allocated this spring are inadequate to do what needs to be done.

<https://www.politico.com/f/?id=00000162-644f-d8c2-a77e-ec5f91420000> Federal Funds for Election Security: Will They Cover the Costs of Voter Marked Paper Ballots?

In Indiana, the \$7.3M allocation of federal funds will cover only 20% - 32% of the estimated cost of \$22.7M - \$35.6M to replace paperless equipment still in use as the primary polling place equipment with optical scan voting systems.

<http://www.brennancenter.org/press-release/national-security-tech-and-election-officials-states-best-practices-should-guide-how> From a letter sent by a coalition of former state election experts, intelligence officials, and voting advocates from across the political spectrum to election officials in all 50 states with recommendations on **how to best allocate the new resources**:

On March 20, the Senate Select Committee on Intelligence released its long-awaited recommendations on election security and concluded that requiring paper ballots, banning wireless components and implementing statistically sound audits of election results are essential safeguards. Last year, a group of 100 leading computer scientists and other election administration experts voiced the same conclusion. Through years of researching voting equipment security in real election administration environments, the National Institute of Standards and Technology (NIST) has come to similar conclusions about what it will take to defend elections. As you begin to make use of the new federal funding, we strongly urge you to follow best practices identified by these and other leading experts for election security:

- 1. Replace paperless voting machines with systems that count a paper ballot — a physical record of the vote that is out of reach from cyberattacks.*
- 2. Conduct robust post-election audits in federal elections. Congress explicitly requested that states “implement a post-election audit system that provides a high-level of confidence in the accuracy of the final vote tally” as part of its report language accompanying the Omnibus. Well-designed audits involve election officials checking only a small random sample of the voters’ choices on paper ballots so that they can quickly and affordably provide high assurance that the election outcome was accurate.*

3. Upgrade systems to ensure that states' election websites, statewide registration systems, and election night reporting systems are defended against threats of intrusion and manipulation.
4. Prohibit wireless connectivity in voting machines to limit vulnerabilities to hacking risks.
5. Train and educate election officials at all levels on how they need to incorporate security into their elections practices.

SITUATION IN INDIANA

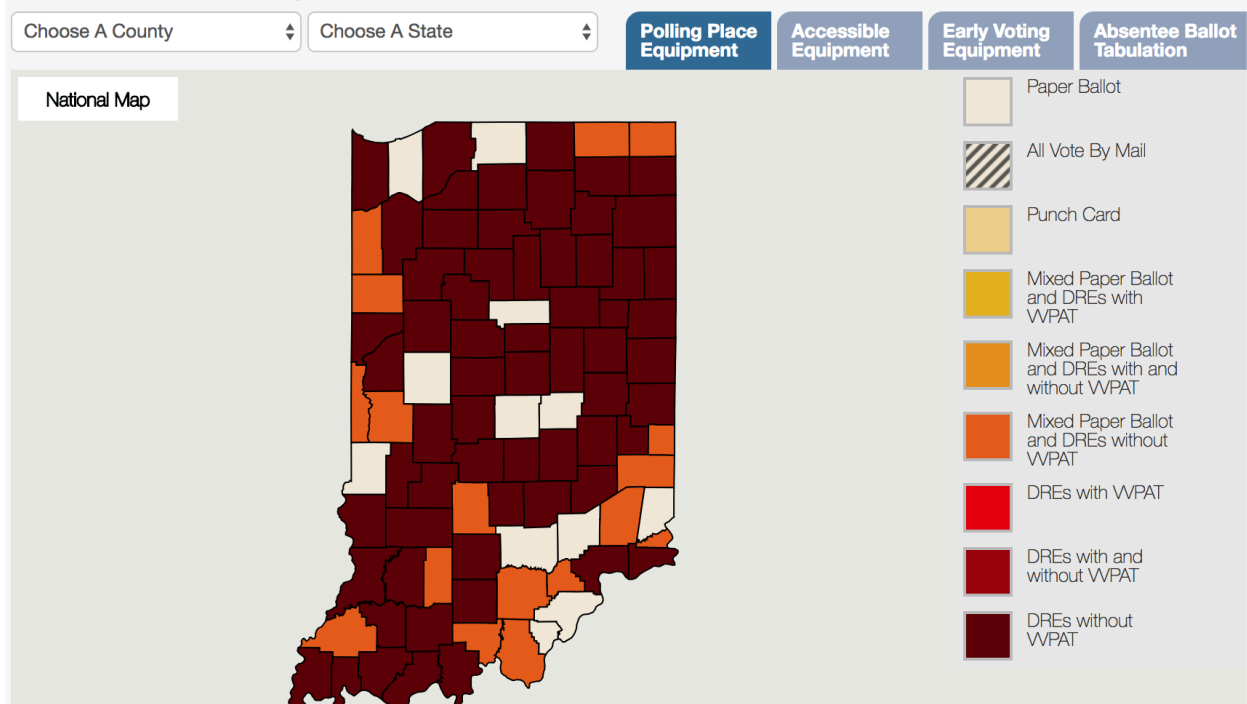
Indiana received an F on baseline standards for election security from the Center for American Progress in their 2018 report.

Numerous Indiana counties are still relying on paperless voting machines.

<https://www.in.gov/sos/elections/2652.htm> In Indiana there are two major types of machines in use: Direct Record Electronic (DRE) and Optical Scan (OS). Many counties are using new voting equipment this year due to new requirements of the Help America Vote Act of 2002. Punch Card and Lever Machines have now all been replaced by either DRE's or Optical Scan machines. Additionally, each county is required to have at least one accessible machine per polling place. **Only 34 of our 92 counties have optical scan machines.**

<https://www.verifiedvoting.org/verifier/#year/2018/state/18> Those optical scan machines are being used primarily for recording absentee ballots according to Verified Voting 2018—although the map below reveals 12 counties using paper ballots this November.

The Verifier - Polling Place Equipment in Indiana - November 2018



Indiana has not established a requirement for a permanent voter verifiable ballot or record Voter Verified Paper Audit Trail (VVPAT). *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.* <https://www.verifiedvoting.org/resources/vvpr-legislation/>

With League urging, Monroe and Montgomery counties in Indiana have taken the threats to election security seriously and replaced their paperless voting machines. Details about the LWV Montgomery County and the Monroe County Voting System Advisory Council (with League participation) strategies are available.

Marion County, Indiana, conducted a test risk-limiting audit in May.

Federal funding to upgrade our Indiana voting infrastructure, even with the required 5% state match, is inadequate.

Indiana election security bills enacted and signed 2018:

- a law containing a variety of provisions related to **maintaining voting equipment**; updating the **permissible error rate** for voting systems to reflect current federal standards; and requiring county election boards to **notify** the Secretary of State within 48 hours of **certain security violations**
- a law regarding **post-election reconciliation of vote counts.**

Challenges:

Connie Lawson, Indiana Secretary of State and President of the National Association of Secretaries of State (NASS), does not favor paper ballots:

<https://www.brookings.edu/blog/fixgov/2018/02/06/how-indiana-safeguards-elections/>
The way Indiana runs elections is probably going to change as a result of the aforementioned cybersecurity concerns. Some are even going so far as to call for a return to paper ballots. I am skeptical that is the answer and believe there are options for us to continue moving elections forward using technology. When I was a county clerk, reporting results on election night, paper ballots and lever machines votes didn't always reconcile. Electronic tabulations do a much better job of tracking each vote and ensuring the number of voters who cast a ballot matches the number of votes cast.

PROPOSED ACTION

Auditable election results are essential to maintaining voter confidence in the integrity of the process and, indeed, in our democracy.

Because our election infrastructure remains extremely vulnerable,

- Outdated and insecure voting systems must be replaced.
- Voters must be able to mark paper ballots which they can verify -- and which can serve as a back-up.
- Election results must be audited manually to establish trust in the system—using a post-election, risk-limiting audit

To achieve these results,

LWVIN should

- **Survey** all Indiana county election administrators—with help from local leagues—on how they propose to use Omnibus funds, the current status of their hardware and software, and their position on voter-verified paper ballots and post-election, risk-limiting audits.
- Report results of survey back to county election administrators.
- Before November election: compile a **report on the** voting process & security of that process **with LWVIN recommendations**. Send to the Legislature and the Secretary of State. Make it available to all local Leagues, League members statewide, and to all voters through press releases and LWVIN website.
- **Advocate** for voter-verified paper auditable trail (VVPAT)

A toolkit we can use:

Securing the Nation's Voting Machines: A Toolkit for Advocates and Election Officials

<https://www.brennancenter.org/publication/securing-nations-voting-machines>

*While states will have flexibility in how they use this money, Congress has **emphasized** the **importance** of having a voter-verified paper record of every vote. In a **memo** accompanying the appropriations, Congress also recommended those paper records be used to conduct post-election audits, ensuring voting machines have produced an accurate result.*

*This toolkit, created jointly by the **Brennan Center for Justice**, **Common Cause**, the **National Election Defense Coalition**, and **Verified Voting**, is meant as a roadmap for advocates and election officials nationwide as local jurisdictions consider purchasing new voting machines. It also suggests best practices for conducting post-election audits.*

RESOURCES

<https://www.brennancenter.org/analysis/clear-and-present-danger-us-vote> Lawrence Norden, Clear and Present Danger to U.S. Vote: We are not doing enough to shore up states' vulnerable voting technology, March 5, 2018

<https://www.weeklystandard.com/alice-b-lloyd/yes-the-midterms-will-be-hacked> Alice B. Lloyd, Yes, The Midterms Will Be Hacked, July 18, 2018.

<https://my.lwv.org/texas/article/election-security-funding-research> The League of Women Voters of Texas resources on election security and funding

<https://www.brennancenter.org/publication/americas-voting-machines-risk> Lawrence Norden and Christopher Famighetti, Brennan Ctr. for Justice, America's Voting Machines at Risk 13 (2015)

<https://theintercept.com/2018/02/18/paper-ballots-amidst-election-security-worries-suddenly-paper-ballots-are-making-a-comeback/> Zaid Jilani, Amid Election Security Worries, Suddenly Paper Ballots Are Making a Comeback, *The Intercept*, Feb. 18, 2018.

https://cdn.americanprogress.org/content/uploads/2018/02/11130702/020118_ElectionSecurity-report1.pdf Danielle Root et al., Center for American Progress, Election Security in All 50 States (2018)

<https://www.americanprogress.org/issues/democracy/reports/2017/08/16/437390/9-solutions-secure-americas-elections/> Danielle Root and Liz Kennedy, "9 Solutions to Secure America's Elections" (Washington: Center for American Progress, 2017)

<https://www.verifiedvoting.org/verifier/> *The Verifier –Polling Place Equipment – November 2018*, Verified Voting,

https://www.brennancenter.org/sites/default/files/analysis/Post-Omnibus_Sign-On_Letter_to_State_Election_Officials.pdf Recommendations following the \$380 million Congress allocated to states to upgrade election security

<https://www.brookings.edu/blog/fixgov/2018/02/06/how-indiana-safeguards-elections/> Connie Lawson, How Indiana Safeguards Elections, February 6, 2018.

About Indiana access to 2018 Omnibus funds:

https://www.nwitimes.com/news/local/govt-and-politics/lawson-recommends-technology-staffing-upgrades-to-improve-election-security/article_c1be12aa-7793-5a6c-a0d7-68e53af6402b.html 3/13/18

https://www.nuvo.net/news/indiana-receives-federal-funds-to-boost-election-security/article_fe97860a-4fa4-11e8-ac63-7b14953b1107.html 5/4/2018

https://www.kpvi.com/news/national_news/indiana-officials-still-working-to-put-in-request-for-federal/article_3f06fbcf-f431-5375-92e1-aaf71959ff93.html 6/26/18

https://www.nwitimes.com/news/local/govt-and-politics/indiana-requests-federal-funds-for-election-security-improvements/article_e4d1b943-c877-56f3-b272-c47d5e998c03.html 7/2/18

https://www.nwitimes.com/news/local/govt-and-politics/elections/secretaries-of-state-focused-on-election-security/article_b10104e5-b04e-52b4-842a-87cbfeb8c775.html
7/7/17

<https://www.eac.gov/news/2018/07/16/us-election-assistance-commission-announces-all-eligible-states-and-territories-have-requested-hava-funds/> 7/16/18

<http://www.brennancenter.org/analysis/voting-laws-roundup-2018> Voting Laws Roundup
2018, 2 April 2018

Indiana Election Legislation 2018

IN HB 1253 <https://iga.in.gov/legislative/2018/bills/house/1253#document-1ae335dd> voter list maintenance

IN HB 1383 <https://iga.in.gov/legislative/2018/bills/house/1383#document-6dfa8471> various election law matters

IN SB 327 <https://iga.in.gov/legislative/2018/bills/senate/327#document-63717a39> Election security, absentee ballot counting →Public Law 100

Related voting legislation update:

Indiana's 2017 voter purge law, **IN SB 442**, violates the National Voter Registration Act by eliminating requirements to provide a notice and waiting period for a group of voters flagged by the Crosscheck program, an interstate database. On June 8, 2018, a federal court blocked enforcement of the controversial voter purge law in a case filed August 23, 2017, by the Brennan Center on behalf of the Indiana NAACP and the League of Women Voters of Indiana.