



Election Security Consensus Questions

1. "Without a paper audit trail, it can be difficult to detect errors or breaches in the voting machine's software or hardware, possibly allowing an incursion into American voting systems to go unnoticed. Even if an error is found, performing an audit of a paperless system can be difficult or impossible given a lack of redundant records to verify vote totals."

<https://www.brookings.edu/blog/techtank/2019/08/14/why-paper-is-considered-state-of-the-art-voting-technology/>

Is it important that voter-verified ballots, such as paper, can be recounted and used in audits?

Yes___ No___

Why or why not? _____

2. From time to time, election results fail to reflect how voters cast their ballots. Risk limiting audits efficiently "ensure that if there were errors, there weren't enough that they would change the outcome." <https://www.ncsl.org/research/elections-and-campaigns/the-what-why-and-how-of-election-audits-magazine2021.aspx>

- a. Is it important to have post-election auditing procedures that allow the public to verify that the overall process is trustworthy?

Yes___ No___

Why or why not? _____

- b. Is it worthwhile implementing risk-limiting audits?

Yes___ No___

Why or why not? _____

3. "Electronic poll books allow poll workers to access a county's entire voter registry, enabling the option to make real time updates ... In states that allow for same-day voter registration, electronic poll books can be used to register voters ... [But] unlike paper poll books, they are vulnerable to cyberattacks and programming errors. Jurisdictions must take safeguards against hacking, the installation of malware, and unauthorized access." <https://verifiedvoting.org/wp-content/uploads/2020/08/Verified-Voting-Electronic-Poll-Book-Use-in-the-United-States-20200831.pdf>

Is it important that voter registration databases

a. be accurate?

Yes___ No___

b. be audited?

Yes___ No___

c. be regularly updated?

Yes___ No___

d. have transparency so individuals can verify their own records?

Yes___ No___

Why or why not? _____

4. Should a voting system be software independent so that if the software is hacked or has a bug that changes the outcome of an election, accurate tallying of votes is still possible without relying on the software? For example, a changed outcome can be detected by a risk-limiting audit, and voter-verifiable paper ballots are software independent.

<http://people.csail.mit.edu/rivest/pubs/RW06.pdf>

<https://people.csail.mit.edu/rivest/pubs/RV16.pdf>

Yes___ No___

Why or why not? _____

5. "The chain of custody of ballots, voting equipment, and associated data is essential to ensure the election system remains trustworthy. Documentation of the chain of custody also provides evidence that all voting procedures were followed. It is a best practice for chain of custody procedures to be clearly defined in advance of every election, well documented and followed consistently throughout the entire election lifecycle or process."

<https://www.eac.gov/election-officials/chain-custody-best-practices>

Is it important that the chain of custody for ballots be secure, with strict protocols and accountability?

Yes___ No___

Should access to key systems and original ballots be limited to select personnel with appropriate expertise, designated responsibility, and strict documentation of time and place of access?

Yes___ No___

Why or why not? _____

6. Is it important that election equipment passwords and other authentication secrets be kept secure? Should custody of ballots, the actual equipment used, and the software on it remain in secure control of election officials?

Yes___ No___

Why or why not? _____

7. In replacing equipment, the difficulty of integrating one brand of scanner with another brand's election management system can lock election officials into a single vendor, decreasing quality and competition, and increasing costs.

Should election equipment continually be supported, tested, and secure?

Yes___ No___

Why or why not? _____

Should there be standards for how different vendors' election system components communicate with each other (interoperability) so that election officials can mix and match equipment when updating?

Yes___ No___

Why or why not? _____

8. "While there are many options to improve overall election security through the use of paper-based voting equipment, risk-limiting audits, and other crucial steps, they might not happen before November. Efforts to prevent attacks in the first place are, of course, critical. But in the months remaining before the election, it is at least equally important to ensure adequate preparations are in place to quickly and effectively recover if prevention efforts are unsuccessful." <https://www.brennancenter.org/our-work/policy-solutions/better-safe-sorry-how-election-officials-can-plan-ahead-protect-vote-face>

Cyber attacks are not the only risk to conducting elections. Power outages, pandemics, and natural disasters can also disrupt elections.

Is it important for election officials to have cybersecurity contingency plans?

Yes___ No___

Why or why not? _____

Is it important to have disaster recovery contingency plans for elections?

Yes___ No___

Why or why not? _____

9. Key work by Philip Stark and D.A. Wagner asserts that elections should be structured to provide convincing evidence that the reported outcomes actually reflect how people voted. This is known as evidence-based elections.

Should auditors and the public be welcome to watch the election process and access copies of election equipment source code, samples of election equipment (but not the actual equipment used in elections), and copies of procedures?

Yes___ No___

Why or why not?_____

Is it important for the public to have a mechanism for addressing flaws in the election process without interfering in an ongoing election process?

Yes___ No___

Why or why not? _____

10. “Election security experts agree that the most resilient voting systems use paper ballots (marked by hand or with an assistive device for those who need to use them) that are verified by the voter before casting” <https://verifiedvoting.org/votingequipment/>

Is it important that voters can verify that their ballots are accurate before they submit them?

Yes___ No___

Why or why not? _____

11. In 2021, there was reportedly unofficial door-to-door canvassing of Colorado voters, and the Secretary of State reminded voters that they are not required to tell canvassers how they voted. <https://www.sos.state.co.us/pubs/newsRoom/pressReleases/2021/PR20210909Canvassing.html>

Should privacy of voter choices be protected?

Yes___ No___

Should post-election door-to-door canvassers ask voters who they voted for?

Yes___ No___

Why or why not? _____

12. There are serious cybersecurity issues with online voting. Voters need to know that this method is neither as private nor as secure as other methods, including mail-in ballots. The general public needs to be aware that hacking is more likely when online voting options are expanded.

The Center for Scientific Evidence in Public Issues of the American Association for the Advancement of Science wrote a letter to all Governors and Secretaries of State in April of 2020 stating that:

“At this time, internet voting is not a secure solution for voting in the United States, nor will it be in the foreseeable future.”

This letter was signed by more than 80 leading organizations, scientists, and security experts.

<https://www.aaas.org/programs/epi-center/internet-voting-letter>

Is it important that less secure voting methods, such as online ballot return, be limited to those who physically cannot use voter-verifiable paper ballots?

Yes___ No___

Why or why not?_____

13. What is the best trade-off between accessibility, security and convenience?

On a scale of 1-5, where 1 is “not important” 2 is “a little important,” 3 is “somewhat important,” 4 is “very important,” and 5 is “extremely important,” rate the following approaches for election systems

- | | |
|-----------|---|
| 1 2 3 4 5 | Allow only in-person, accessible, private voting at polling places - thus no mailed ballots - for all but those with good excuses? This would require good evidence of eligibility and prevent most opportunities for coercion. |
| 1 2 3 4 5 | In addition to accessible in-person voting, send ballots to all voters by mail, significantly increasing access, but accepting the challenges of verifying signatures, dealing with the slowness of the postal system, and making coercion much easier? |
| 1 2 3 4 5 | Allow ballots to be returned over the internet, but only for voters who would otherwise be disenfranchised, who otherwise could not keep their vote private, or who otherwise could not vote at all? |
| 1 2 3 4 5 | For those few voters returning their ballot over the internet, should election officials be required to provide end-to-end verifiable internet voting (E2E-VIV), which, while insecure, reduces some of the risks of internet voting? |
| 1 2 3 4 5 | Allow all ballots to be returned over the internet, where voters can use the ballot marking interface that is most convenient to them, but where it is far harder to verify voters, keep their votes or personal information private, or ensure that votes are valid and are not changed as they return over the internet - where such hacking has the potential to change the outcome of the election? |