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INSIGHT

Federal Guidelines, Testing, and Certification for Electronic Poll Books (E-Poll Books)

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The U.S. Election Assistance Commission (EAC) oversees a program to test and certify voting systems to a set of voluntary federal guidelines known as the Voluntary Voting System Guidelines (VVSG). No similar federal guidelines, testing, or certification have been available for other systems used to administer elections, such as electronic poll books (e-poll books) used to check voters in at the polls.

That is changing, however, with the EAC's development of an Election Supporting Technology Evaluation Program (ESTEP). ESTEP was established in 2022 to explore federal testing of election systems that are not covered by the EAC's voting system testing and certification program. The agency's commissioners voted to adopt it as a permanent EAC program at a public meeting on December 4, 2023.

ESTEP's first major project, which concluded shortly before the December 4 vote, was a program to pilot testing and certification of e-poll books. A revised version of the guidelines used in the e-poll book pilot was available for public comment from November 14 through December 14, 2023. The final version of the guidelines will form the basis for a formal e-poll book testing and certification program at the EAC.

What Are E-Poll Books?

Election workers use lists of registered voters to verify voter eligibility at the polls and track who has cast a ballot. Those lists were traditionally kept on paper, but states and territories have increasingly replaced paper poll books with electronic equipment, such as tablets and laptops, that can be used to access digital voter registration records. According to the EAC, the number of states and territories that use e-poll books in some or all jurisdictions has increased from 23 the first year it tracked the data, in 2008, to 40 in 2022.

Part of the appeal of e-poll books over their paper counterparts is that they can help election workers perform the same tasks more accurately and efficiently. For example, e-poll books can be used to scan voters' IDs and autogenerate voter turnout reports, speeding up voter check-in and tracking processes and reducing the potential for human error.

Another part of the appeal is that e-poll books can be used for other tasks, beyond those available with paper poll books. Local officials have reported using e-poll books to track ballot inventory and provisional voting rates, for example, to help prevent ballot shortages and identify workers who might need additional training on proper procedures. Some states link e-poll books to networks, facilitating real-

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time updates to voter information that can be used to run multiprecinct vote centers and safeguard against double voting. E-poll books can also be used to share election-related updates with poll workers, such as court-ordered extensions to voting hours, and redirect voters who have arrived at the wrong polling place.

Why Have Federal Guidelines, Testing, and Certification Been Proposed for E-Poll Books?

E-poll books, like other electronic equipment, can malfunction and be difficult to use, either in general or for members of certain groups such as individuals with disabilities. They can be targets for intentional interference and, if connected to a network, susceptible to a wider range of attacks than air-gapped systems.

Problems with e-poll books—whether intentional or unintentional—can have significant consequences. For example, e-poll book glitches like crashing and failing to sync have reportedly caused slowdowns at the polls in multiple states in recent years, forcing many voters to wait hours to vote or leave without casting a ballot. Loss or modification of voter data could also disenfranchise eligible voters, by making it appear as if they have already cast a ballot or are not eligible to vote, and diminish voters' confidence in the legitimacy of the election.

Some states have their own guidelines, testing, or certification for e-poll books. The potential for problems with e-poll books—combined with variations in states' capacities to address those problems themselves and possible cost or efficiency advantages of setting a national baseline—have prompted some to also propose federal involvement. For example, bills have been introduced to direct the EAC to develop guidelines for e-poll books (e.g., American Confidence in Elections Act, H.R. 4563, 118th Congress) and provide for e-poll book testing and certification (e.g., Freedom to Vote Act, H.R. 11/S. 1/S. 2344, 118th Congress).

How Has the EAC Developed Its E-Poll Book Testing and Certification Program?

The EAC started development of its e-poll book testing and certification program with a pilot program. It worked with the cybersecurity firm Mandiant to draft security guidelines for the e-poll book pilot and the National Institute of Standards and Technology (NIST) on guidelines for e-poll book usability and accessibility. The draft guidelines were reviewed by—and revised in response to feedback from—NIST; the VVSG Subcommittee of an EAC advisory body composed of state and local election officials; and the two private laboratories that are accredited by the EAC to test voting systems to the VVSG.

Five commercial e-poll book manufacturers participated in the pilot program, along with a local elections department and state elections board that use e-poll books they developed in-house. Each of the seven participants—Election Systems & Software, KNOWiNK, Robis Elections Inc., Tenex Software Solutions, VOTEC Corporation, Maricopa County Elections, and the North Carolina State Board of Elections—submitted an e-poll book to be tested to the EAC's guidelines by the EAC-accredited labs.

Drawing on the test results and feedback from the pilot program participants and testing labs, ESTEP recommended some changes to the pilot materials, including revising the existing guidelines, adding new guidelines for basic e-poll book functionality, and developing a manual that outlines administrative processes and requirements for participating in ESTEP programs. It also recommended expanding the pilot into a formal testing and certification program and launching a second pilot program for another nonvoting election system.

The director of ESTEP provided an update on those recommendations at the EAC's December 4 meeting, including announcing

- a second pilot program for testing the blank ballot delivery systems used to deliver ballots to certain voters, such as some voters with disabilities and military and overseas voters;
- revisions to the e-poll book guidelines, including addition of guidelines for basic functionality; and
- development of an ESTEP program manual.

The revised guidelines and ESTEP program manual were released for public comment on November 14. Following the close of the public comment period on December 14, they were scheduled to go to the EAC's commissioners for further review.

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