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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 are currently 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 could change, however, if the EAC's commissioners approve the recommendations in an October 2023 report. The EAC established an Election Supporting Technology Evaluation Program (ESTEP) in 2022 to explore federal testing of election systems that are not currently covered by its voting system testing and certification program, with an initial pilot program for e-poll books. ESTEP's report on the e-poll book pilot recommended expanding it into a formal testing and certification program and launching a second pilot program for another type of nonvoting election system. The EAC scheduled public meetings on November 17, 2023, and December 4, 2023, to discuss the e-poll book pilot and next steps for ESTEP.

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-time updates to voter information that can be used to run multiprecinct vote centers and safeguard against

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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 Did the EAC's E-Poll Book Pilot Program Work?

The EAC worked with the cybersecurity firm Mandiant to draft security guidelines for e-poll books 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 the following changes to the pilot program:

- check state and local e-poll book requirements for potential revisions to the federal guidelines,
- clarify the guidelines pilot program participants had difficulty meeting,
- add new guidelines for basic e-poll book functionality, and
- create a manual that outlines administrative processes and requirements for participating in ESTEP programs.

ESTEP also recommended expanding the e-poll book pilot into a formal testing and certification program at the EAC and launching a second pilot program for another nonvoting election system. It proposed two

possible candidates for the second pilot: (1) the blank ballot delivery systems used to deliver ballots to some voters with disabilities and military and overseas voters, and (2) the election night reporting systems used to compile and share unofficial election results.

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