



OHIO LEGISLATIVE SERVICE COMMISSION

Bill Analysis

Abby McMahon

H.B. 467

132nd General Assembly
(As Introduced)

Reps. Clyde, Ingram, K. Smith, Galonski, Reece, Boggs, Lepore-Hagan, West, Leland

BILL SUMMARY

- Requires a board of elections to conduct an audit of the official election results of a general election or presidential primary election and permits audits of other election results.
- Requires the Secretary of State to prescribe procedures for conducting an audit.
- Requires boards to use either a risk-limiting audit protocol or a percentage-based audit protocol.
- Requires the audit to be open to observers appointed under the Election Law, the media, and members of the public.
- Beginning in the year 2019, prohibits a county from using any direct recording electronic voting machine (DRE) or any marking device or automatic tabulating equipment that does not require the use of a voter marked and voter verified paper ballot.
- Requires automatic tabulating equipment that is designed to count votes marked by hand on a ballot using a writing instrument to count votes regardless of the type of instrument used by a voter.

CONTENT AND OPERATION

Audits of official election results

Procedure for auditing official election results

The bill requires a board of elections to conduct an audit of the official election results of a general election or presidential primary election and permits a board to conduct an audit of the official election results for any other election. The audit must be conducted no earlier than six business days after the official election results are declared and must be completed by the 21st day after the official results are declared. If a board conducts a recount under the Election Law, the board must conduct the audit immediately after the board certifies the results of the recount and complete the audit by the 14th day after the board certifies the results of the recount.

The bill requires the Secretary of State to prescribe the procedures for conducting an audit, which must include the following:

- The board must audit at least three contested races, questions, or issues that appear on the ballot at an election, as directed by the Secretary. If less than three contested races, questions, or issues appear on the ballot, the board must audit every contested race, question, or issue that appeared on the ballot.
- Every ballot that was included in the canvass of election results must be eligible for audit, including regular ballots cast the day of the election, absent voter's ballots, and provisional ballots.
- The board must conduct the audit using either a risk-limiting audit protocol or a percentage-based audit protocol (see below for more detail).

The bill requires the board to certify the audit results to the Secretary within five days of completing it. The Secretary must make the audit results available on the Secretary's official website. If the results of a completed audit or full hand count of ballots ordered by the Secretary indicate that the canvass or previously declared official election results must be amended, the Board must promptly do so.¹

Risk-limiting audit protocol

In a risk-limiting audit, unlike in a percentage-based audit, the actual number of ballots to be hand counted (audited) in a particular race is calculated using a statistical

¹ R.C. 3505.331.



formula and varies based on the margin of victory for the race in the initial results, how many counting errors are discovered during the course of the audit, and the risk limit set for the audit. The bill refers to this protocol as using statistical methods to limit to acceptable levels the risk of certifying an incorrect outcome for a particular race, question, or issue.

The risk limit, expressed as a percentage, represents the chance that, if the initial results declared the wrong winner in a race, the audit will not detect that error. For example, with a 10% risk limit, if the initial results indicated the wrong winner, there is at most a 10% chance that the audit will not catch the mistake and at least a 90% chance that the audit will correct the error. The lower the risk limit an audit uses, the more ballots must be hand counted. If the risk limit is 0%, meaning that there is no risk of an incorrect election result going uncorrected by the audit, then the election officials must hand count every ballot cast in the race. The bill requires the Secretary of State to determine the risk limit to be used.

The protocol requires a bipartisan team of election officials to physically examine and hand count randomly sampled ballots. The officials must continue to hand count randomly sampled ballots until the results of the hand count provide sufficiently strong evidence (based on the risk limit) that a hand count of all of the ballots would confirm the declared election result or until all of the ballots have been counted, whichever occurs first.

If the race to be audited was decided by a large margin and the first several ballots hand counted are consistent with the initial results recorded by the voting equipment, the number of ballots the election officials must hand count might be significantly smaller than in a percentage-based audit. Conversely, if the race was decided by a small margin or the initial hand counting reveals some errors, the election officials might be required to hand count more ballots than they would in a percentage-based audit, and with a small enough margin or enough errors discovered, the officials might even be required to hand count all ballots cast in the race.²

Percentage-based audit protocol

A percentage-based audit protocol requires a bipartisan team of election officials to physically examine and hand count a number of randomly sampled ballots equal to a given percentage of the total number of ballots cast in the county at that election. After the officials complete the audit, the board must calculate the accuracy rate of each

² R.C. 3505.331(B)(3)(a). See also Mark Lindeman & Philip B. Stark, *A Gentle Introduction to Risk-Limiting Audits*, IEEE Security & Privacy, September-October 2012, at 42, prepublication copy available at stat.berkeley.edu/~stark/Preprints/gentle12.pdf, accessed April 24, 2018.

audited race, question, or issue. For example, if 1,000 ballots were cast in a race, and the election officials must hand count 5% of those ballots, 50 ballots would be hand counted. If the officials discovered that the voting equipment incorrectly counted five of those ballots, the accuracy rate would be 90% (100% - (5/50)).

If any accuracy rate is less than the acceptable accuracy rate provided by the Secretary, the board must escalate the audit by requiring bipartisan teams of election officials to physically examine and hand count a second set of randomly sampled ballots equal to a given percentage of the total number of ballots cast in the county at that election. The second set of ballots should not include any ballots from the first set of audited ballots. After the second set of ballots is audited, the board must calculate the combined accuracy rate for both audited sets of ballots. Continuing the above example, if the hand count of a second set of 50 ballots in that race revealed three inaccurately counted ballots, the accuracy rate for the second set would be 94% (100% - (3/50)), and the combined accuracy rate would be 92% (100% - (8/100)).

If the accuracy rate, after completing a second, escalated audit, is less than the acceptable combined accuracy rate provided by the Secretary, the Secretary may require the board to order bipartisan teams of election officials to physically examine and hand count all ballots cast in that race, question, or issue (see **COMMENT**).³

Public notice and observers

Under the bill, the board must give public notice of the times and places, in accordance with the Open Meetings Law, for conducting an election audit. Briefly, the Open Meetings Law requires a public body to give at least 24 hours advance notice of each special meeting to all news media that have requested notification. The Open Meetings Law also requires a public body to promptly prepare, file, and maintain minutes of all meetings and to make those minutes available for public inspection.

The board also must allow observers appointed under the Election Law, the media, and members of the public to observe the audit and inspect public records that are relevant to the audit. Only board members or designated employees are allowed to handle a ballot during the auditing process. Additionally, the bill permits the board to limit the number of persons from the general public who may observe the audit due to the physical space where the audit is occurring or other practical restraints. However, the board may not prevent any appointed observer or the media from observing the audit.⁴

³ R.C. 3505.331(B)(3)(b) and (D)(2).

⁴ R.C. 121.22, not in bill, 3505.21 and 3505.331.



Current procedures

While the existing statute does not require post-election audits, the Secretary of State currently requires the boards of elections to conduct those audits by directive. The bill's requirements are the same as the Secretary's, except that under the bill, the boards must audit the results of every general election, instead of only a general election held in an even-numbered year.⁵ The Secretary has required the boards to conduct post-election audits at least since 2010, based on the terms of a settlement agreement that expired in 2015. The agreement ended a federal lawsuit in which the plaintiffs argued that Ohio's election administration procedures violated the Fourteenth Amendment to the U.S. Constitution.⁶

Voting equipment requirements

Voter marked and verified paper ballots

Beginning in 2019, the bill prohibits a county from using any direct recording electronic voting machine (DRE) or any marking device or automatic tabulating equipment that does not require the use of a voter marked and voter verified paper ballot. A voter marked and voter verified paper ballot is a paper ballot on which the voter records the voter's choices, either by hand or by the use of a marking device that records the voter's choices on the ballot, that the voter must then inspect for accuracy.

Under the bill, a voter marked and voter verified paper ballot does not include a voter verified paper audit trail (VVPAT). Under current law, a DRE, typically a touch-screen device, electronically records the voter's selections and must also provide a VVPAT, which is a physical paper printout showing those choices. The voter may, but is not required to, inspect the VVPAT to confirm whether the machine accurately recorded the voter's choices. The VVPAT is not a ballot for purposes of the bill because it is only used in the case of a recount or an audit.

Additionally, the bill removes the specific requirement that every polling location have at least one DRE available and accessible for use by individuals with disabilities. Under continuing state and federal law, a polling location is required to have at least one voting machine or marking device available and accessible for use by individuals with disabilities in a manner that provides the same opportunity for access

⁵ Ohio Secretary of State, *Ohio Election Official Manual*, Chapter 9, Section 1.03, available at sos.state.oh.us/globalassets/elections/directives/2017/dir2017-14_eom_ch_09.pdf, accessed April 24, 2018.

⁶ *League of Women Voters of Ohio v. Brunner*, Case No. 3:05-CV-7309, Order enforcing settlement agreement, Exhibit B at 7 (N.D. Ohio June 19, 2009), available at moritzlaw.osu.edu/electionlaw/litigation/documents/LWVBlackwell-Order-6-19-09.pdf, accessed April 24, 2018.



and participation, including privacy and independence, as for other voters. And, the bill adds a requirement that a board of elections also provide an accessible voting machine or marking device at the board's office while in-person absent voting is being conducted.⁷

Writing instruments

The bill requires automatic tabulating equipment that is designed to count votes marked by hand on a ballot using a writing instrument to count votes regardless of the type of instrument (such as a pen or pencil) used by a voter.⁸

COMMENT

Both the bill and the Secretary of State's directive require a board of elections that conducts a percentage-based audit to calculate the accuracy rate by dividing the sum of any discrepancies discovered in the results of the audited race by the number of ballots audited for that race and subtracting the resulting number from 100. For instance, if the board audited 50 ballots and found discrepancies in five of those ballots, the accuracy rate would be calculated as $100 - (5/50)$. $5/50 = 0.10$, and $100 - 0.10 = 99.9$. However, the accuracy rate of the audit would not be 99.9%. The correct process is to divide the number of discrepancies by the number of ballots audited, express that number as a percentage, and subtract that percentage from 100%. Using the same example, $5/50 = 10\%$, and $100\% - 10\% = 90\%$ accuracy.⁹

According to the Secretary of State's legislative liaison, the Secretary's office is aware of the error in the manual, and the forms the boards of elections use to report the results of percentage-based audits use the correct formula.

HISTORY

ACTION

DATE

Introduced

01-17-18

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⁷ R.C. 3506.02, 3506.022, 3506.05, 3506.10, 3506.19, 3506.21 and 3506.22(repealed). See also R.C. 3506.18, not in the bill, and 52 U.S.C. 21081(a)(3).

⁸ R.C. 3506.07.

⁹ R.C. 3505.331(B)(3)(b) and Ohio Secretary of State, *Ohio Election Official Manual*, Chapter 9 at 9-34, available at sos.state.oh.us/globalassets/elections/directives/2017/dir2017-14_eom_ch_09.pdf, accessed May 4, 2018.

