

Addressing the Problems Reported in Maryland's 2006 Primary Election

While some localized errors such as the failure to deliver Voter Access Cards to Montgomery County's polling places have received a lot of attention, many election judges, technicians, poll watchers, and voters have reported other serious problems throughout the state during the Primary Election, including:

Electronic pollbook problems

- Some voters were incorrectly marked as "already voted" in the electronic pollbook records.
- In many precincts, e-pollbook totals did not match the number of ballots cast in the polling place that day.
- Party registration was sometimes listed incorrectly, forcing long-time party members who were listed as "unaffiliated" to vote on provisional ballots.
- Ongoing problems with synchronization caused the records of various pollbooks in the same polling place to be mismatched with those of the other pollbooks in that polling place.
- Pollbooks sometimes crashed during the encoding of Voter Access Cards, and then marked the voter as "already voted" upon restart.
- Scarcity of pollbook printers in counties that used them caused long waits to check in at some polling places.

Poorly trained technicians with no background checks

- In a last-minute scramble to hire enough technicians to support new technology such as electronic pollbooks, which were implemented just weeks before the primary election, Diebold recruited technicians via recruiting services that listed the minimum requirement as "some high school coursework."
- Some technicians were trained in groups of more than 80 per class with only one or two instructors. Many election judges were more knowledgeable about the equipment than the technicians were.

- Many applicants received no security screening or background checks, yet in some counties they were entrusted to return the election results by themselves to the county elections office after the closing of the polls. Past security procedures required both chief judges from each polling place to go together to put critical elements, such as the voting machine memory cards containing the election results, directly into the hands of county elections officials.
- Incredibly, these unscreened technicians were also entrusted with an extra memory card in addition to those installed inside the e-pollbooks. The cards contained the entire statewide voter registration database listing the full legal name, address, date of birth, and possibly other sensitive information, of every voter in the state of Maryland. It would be impossible to detect whether any technician copied the data from the memory card while it was in his/her possession, thereby potentially exposing every voter in the state to identity theft, similar to the scandal that ensued when a computer was stolen from the home of a Veteran's Administration employee.

Access for voters with disabilities

- In some counties, neither technicians nor election judges were trained in the preparation of a Voter Access Card to enable a visually impaired voter to vote using an audio ballot, and this information is not clearly marked in the election judges' manual. Lt Governor candidate Kristen Cox encountered this problem and was unable to cast an audio ballot on a touch-screen machine.
- If a visually impaired voter does not let the check-in judge know right away that they will need to use the audio equipment, the Voter Access Card has to be cancelled and reprogrammed.
- While it is not difficult to cast a vote using the audio ballot, it is very difficult for the voter to review their ballot choices to ensure that they were marked correctly.
- Some precincts did not receive the bracket that allows the wheelchair-accessible machine's screen to be set up at a 90 degree angle to the table surface

Security procedures:

- SAVE Our Votes is very concerned about the casual dismissal by Administrator Lamone of the report by Princeton University researchers that demonstrates how easily Maryland elections could be compromised. Her report to the Board of Public Works illustrates a serious misunderstanding of the implications of the work by these independent scientists.
- It is further disturbing that her remarks are, almost to the word, the same as the response by the Diebold corporation. While Ms. Lamone claims that, "the Princeton report is of little relevance to Maryland's voting system," it is interesting

to note that neither she nor Diebold claim that their present security measures would prevent any of the attacks described in the Princeton report.* The new “election integrity” procedures, while essential, do very little to protect the security of an inherently insecure system because there is no way to reliably detect whether the system has been compromised or altered when a breach is discovered.

- It is not clear how to proceed when a potential security breach, such as voided tamper tape or mismatched tag or seal numbers, is discovered. If it happens at poll opening, should that equipment be set aside and not used in the election?
- If a machine is removed from service because voided tamper tape is discovered, could that constitute a “denial of service attack,” where the tamper tape itself becomes the target of attack by someone wishing to reduce the number of machines in use in a given polling place, thereby causing long lines and increasing wait times for equipment?
- What should be done about the votes already cast on a machine if a security breach is discovered during election day, since there is no way to tell if they have been altered?
- The new security procedures add hours of labor to poll closing procedures that can be performed only by the chief judges, leaving other election judges idle but unable to assist, which delays the reporting of election day results.
- The statement by Administrator Lamone that the “SBE has mitigated the other risks identified in the California report” is inaccurate. The primary risk mitigation recommended in that report is a voter-verified paper audit record that allows the machine tallies to be independently audited for accuracy, as required by California law. Without that essential safeguard, California would not have deemed the voting machines acceptable for use.

*For a point by point rebuttal of the Diebold response by the Princeton University researchers, please see: <http://www.freedom-to-tinker.com>

In light of these reported problems, we recommend that the following emergency measures be instituted before the General Election:

The most secure way to conduct the election would be to set aside the touch-screen voting machines and allow all voters to cast their votes on paper ballots that could be counted using optical scanners, just as absentee and provisional ballots are currently counted. A single touch-screen machine in each polling place could provide accessibility to disabled voters.

However, if the touch-screen machines are used, the following measures should be implemented:

1. **Provide enough provisional ballots** in each polling place to enable every registered voter to cast an emergency paper ballot if necessary. In order to streamline the process, the emergency paper ballots should not require the same lengthy documentation as regular provisional ballots for voters who have already been checked in on the registration list at the polling place and are otherwise qualified to vote on the touch-screen machines. These ballots should be handled separately from normal provisional ballots that require careful investigation of the voter's registration status.
2. **Do not use the electronic pollbooks** for the November election. These machines were originally purchased to prevent fraud during early voting. Since early voting has been cancelled, these machines are not necessary. This technology has proven itself to be unstable and insecure, and the records it generates cannot be trusted. Voters may be disenfranchised, as well as exposed to potential identity theft.
3. **Provide aggressive oversight** for the process of recruiting and training technicians, and require thorough screening and background checks. Do not allow technicians to transport sensitive election results unattended.
4. **Provide better training** for election judges and technicians in the use of the Visually Impaired Ballot Stations. Mark this information more clearly on page 11.23 of the election judges' manual, and refer to it in the sections on serving visually impaired voters and on setting up the VIBS equipment.
5. **Instruct chief judges** in what constitutes a system failure (such as the lack of voter access cards) and what emergency measures should be taken in response, especially if they are unable to reach the LBE for instructions.
6. **Issue clear guidelines** about what to do if a scarcity of available equipment makes wait times unacceptably long.

7. **Issue clear mandates** about how to handle equipment on which security breaches are discovered, clarifying both when to pull equipment from service and how the votes already cast on that machine will be handled, since there is no possibility of detecting many dangerous types of tampering.
8. **Investigate the party affiliation errors in the e-pollbooks** to determine whether they occurred in the transition to the new statewide voter registration database or were introduced by the electronic pollbook system.
9. **Inform voters about how to check and correct their registration** records in the new voter registration database.

Since every system is prone to both human and mechanical error, it doesn't make sense to depend on a system that allows no room for error. Back-up plans must be in place to enable every eligible voter who arrives at the polling place during voting hours to successfully cast a ballot that will be accurately recorded and counted, as required by state law, regardless of any failures the voting system may experience.

However, even if all of the problems that occurred in the Primary Election are not repeated in the General Election, and even if all of the recommendations above are implemented, the overriding problem with Maryland's election system remains. Without a voter-verified paper audit trail there is no ability to have confidence in the machines' tallies.

Maryland's current voting system is inadequate to the task of preventing sophisticated attacks and it is unable to recover lost votes from machine malfunctions or malicious software because it lacks the prudent measure of a voter-verified paper audit trail.