

# SAVEourVotes

SECURE•ACCESSIBLE•VERIFIABLE ELECTIONS FOR MARYLAND

## Testimony in Opposition to SB970 and HB 1211 Election Law - Delay in Replacement of Voting System Heard 26 March, 2009 Senate Education, Health, and Environmental Affairs Committee

Honorable Chairwoman Conway and Distinguished Senators,

Two years ago, Maryland's General Assembly voted unanimously to replace our Direct-Recording Electronic (DRE) touch-screen voting system with optically scanned paper ballots. Last year Governor O'Malley included funding in the Fiscal Year 2009 budget to begin the transition.

### This was a wise choice for several reasons:

- **Our current voting system provides no independent record** of the voters' selections that can be used for a recount or to verify the elections results with an audit.
- **Countless studies and election-day disasters** have shown DRE voting systems to be susceptible to error or tampering. Attorney General Gansler has filed a claim to recover \$8.5 million from the manufacturer, Premier Election Solutions, for the costly and time-consuming security procedures Maryland uses to try to safeguard the equipment against some of its inherent vulnerabilities, but even these cannot protect against the most serious types of attacks that could compromise our elections.
- **Nearly three-quarters of Maryland voters** polled say they want a paper record of their votes.
- **Maryland uses an obsolete model** of DRE that is no longer manufactured, so replacement units and spare parts for our rapidly aging equipment are available only on the used market.
- **Our stock of available voting machines was insufficient** to prevent 2-hour waits to vote throughout the state on November 4, 2008, even though the State Board of Elections rented almost 1200 additional machines to supplement the nearly 19,000 machines already deployed statewide. Rented equipment may violate the state's requirement that election documents be retained for 22 months after each election, since both the memory cards and the machines they came from constitute the original records of the votes cast on Election Day.
- **Our current voting system has been extremely costly** both to purchase and to operate. Maryland has spent more than \$100 million to date on this equipment, and will still be repaying the capital lease used to purchase it until 2014, whether or not we continue to use the equipment. The yearly operating costs for the system averaged \$10.7 million in FY 2006-2008, in addition to the costs of repaying the purchase loan. We simply can't afford to continue voting this way in lean economic times.

### By contrast, an optical-scan system is a sound investment because:

- **Election results can be easily verified** through recounts or audits that compare the paper ballots marked by the voters to the machine-counted results.
- **Most election-day problems** do not prevent voters from recording their votes accurately.
- **One optical scanner can serve thousands** of voters, so just one machine is needed in each precinct, as well as one machine that enables voters with disabilities to cast a ballot. This is an 80% reduction in equipment compared to our current voting system.
- **The system capacity is easily expandable** at times of peak demand because voters can mark their paper ballots anywhere a private space is available.

- **Election costs are reduced** because of the small number of machines needed and the simplicity of their maintenance and operation. Their life expectancy is often measured in decades.
- **Optical scanners are the most widely used** type of voting system in America because of their economy, accuracy, and ease of use for both voters and election officials. The recent Minnesota recount revealed a 99.9% accuracy rate for the optical scanners used there.

**The cost of an optical scan system could be further reduced in the following ways:**

- **Fewer optical scanners:** Most of Maryland's 1824 precincts will need just one optical scanner, so purchasing 2,000 (rather than 2,500) would allow for 10% additional spare machines as back-up.
- **More—but less expensive—voting booths:** Experience in other states has shown that most voters prefer to sit to mark their ballots. Most polling places in Maryland probably have tables and chairs available for use, so purchasing inexpensive folding cardboard or plastic privacy screens that can be set up on a tabletop, as is currently done for provisional voters, would allow for greater system capacity, compact storage, and reduced cost. More expensive stand-alone voting booths would only be needed in polling locations that could not provide tables and chairs.

For questions or further information, please contact:  
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# SAVEourVotes

SECURE•ACCESSIBLE•VERIFIABLE ELECTIONS FOR MARYLAND

March 22, 2009

Dear Senator,

We write to you in reply to a letter sent recently to members of the Senate by Guy Mickley, president of the Maryland Association of Election Officials (MAEO), which urged you to delay the purchase of a new voting system.

Two years ago, MAEO opposed the passage of our current law requiring voter-verifiable paper records. Both chambers of the General Assembly wisely rejected MAEO's position with unanimous votes in favor of 2007 Senate Bill 392, which requires a transition to a paper ballot voting system in time for the 2010 elections. While it is understandable that MAEO has asked for a delay in implementing a law it opposed from the outset, many of the arguments made in their letter are not supported by the facts. Quotes from the letter are included in italics, followed by our response.

*Mickley wrote: "The DRE system we have now works."*

Because the DRE (Direct-Recording Electronic) system now in use provides no independent means to check its accuracy, there is no way to know whether votes were recorded correctly and no way to perform a meaningful recount. Computer security experts and technologists from government, the private sector, and academic institutions have called for voting systems that provide voter-verifiable paper records, and more than three-fourths of the states have purchased or required by law voting systems that provide this essential safeguard. In response to overwhelming evidence of the vulnerability of DREs, Maryland's Senate and House of Delegates voted unanimously in 2007 to move to optically scanned paper ballots by 2010.

*Mickley wrote: "We just completed performing a near flawless election on these voting units..."*

Our current equipment is beginning to show its age, and voter registration in the state has already outgrown its capacity. The State Board of Elections (SBE) spent nearly \$250,000 to rent additional voting units for last November's election to accommodate increased voter registrations to bring our machine allocations into compliance with the ratio required by COMAR, but even this did not prevent long wait times on Election Day. Voter hotlines reported equipment problems such as freezing, crashing, and vote-flipping.<sup>1</sup> If aging equipment malfunctions on Election Day, votes may be permanently lost and election outcomes uncertain as already has happened in Florida and North Carolina. Just last week we witnessed problems with DREs in Fairfax, VA that leave the results of a local special election in doubt.

*Mickley wrote: "... and our election judges have perfected the operation of these voting units. The State and local boards have spent a lot of time and money on security and accountability with these units..."*

Election judges in Prince George's County reported flagrant violations of security procedures in both the 2008 Primary and General Elections. These included receiving equipment that was not properly locked or secured, finding additional voting units at the polling place that were not included in the chain-of-custody inventory, lack of sufficient supplies to lock and secure equipment on election night, and violations of equipment turn-in procedures. Unless security procedures are strictly followed, they fail to protect our elections from tampering—and even if they are, they cannot safeguard these vulnerable machines against the most serious threats from insiders, as numerous studies have proved.

These security procedures are so expensive that Attorney General Gansler has filed a claim against Premier Election Solutions (formerly Diebold Election Systems, Inc.) to recover \$8.5 million in expenses incurred by the state to establish and implement these security measures, and the procedures are so time-consuming and cumbersome that it takes several hours to set up and close a large polling place, requiring many election judges to work 18 to 20 hour days. This means that exhausted election workers often cut corners in following these vital procedures, and many senior citizens have left their former positions as election judges because they lack the stamina to meet the demands of the job. Robust security and chain-of-custody procedures will also be necessary with an opscan system but its greater simplicity will simplify the procedures and greatly speed up poll opening and closing.

*Mickley wrote: "... and they were one of the biggest factors in the local boards being able to disseminate lines quickly on Election Day because of their ease of use."*

Election judges and poll monitors documented wait times longer than two hours in Prince George's and Montgomery Counties and Baltimore throughout the morning that did not "disseminate" (dissipate?) until after noon. Reports from the media corroborate this widespread problem throughout the state.<sup>2</sup> Long lines disenfranchise voters whose work schedules, family obligations, or health limitations prevent them from waiting hours to vote. Despite record voter registration levels and high interest in this historic election, overall turnout was slightly lower in 2008 than in 2004. This may indicate that some voters left the polls without voting when they encountered long lines, or that news reports about the lines dissuaded them from trying to vote. By contrast, an optical scan voting system can expand as needed to accommodate peak demand because voters can mark a ballot in any private space without expensive equipment.

Long wait times are an inherent problem with a DRE voting system because it lacks the flexibility to add capacity at times of peak demand. Physicist Dr. William Edelman has applied a mathematical queuing simulation to study the through-put capacity of our voting system<sup>3</sup> and predicted these long waits. SAVE our Votes and Fair Elections Legal Network worked throughout the summer of 2008 to warn the SBE about this problem and suggested the solution adopted by many states: emergency paper ballots that could be issued when wait times exceeded a reasonable amount. SBE chose instead to urge voters to vote at off-peak hours, which is not

feasible for most voters. We cannot know how many voters were disenfranchised by these long wait times.

*Mickley wrote: “We are still paying on these machines. The State still owes approximately \$17 million dollars on these machines, which gets spread out into county budgets through the FY14 fiscal cycle. In this economic crunch, burdening the State and local budgets with additional charges for voting equipment on top of the equipment we already owe on just does not make any sense.”*

SAVE our Votes is extremely sensitive to the financial pressures both our state and our counties are facing, and that is a very important reason to move to an optical scan (op-scan) voting system as quickly as possible. Op-scan systems require 80% less equipment than the DRE voting system we currently use, which means they are far less expensive to operate. One optical scanner to count votes and one machine to enable disabled voters to mark a paper ballot would replace an average of ten DREs. Operating costs of the current system averaged \$10.7 million during Fiscal Years 2006-2008.<sup>4</sup> An op-scan system would reduce the costs of testing, maintaining, repairing, and replacing equipment, as well as transporting and storing it. Maryland counties that previously used op-scan systems saw their voting equipment costs more than double when the state moved to DREs, even with the state sharing half the cost.

Miami-Dade County, FL (with approx 1 million registered voters) found itself in a similar situation in 2005 and commissioned a study<sup>5</sup> comparing the cost of continuing to operate the DREs it had already purchased with the cost of switching to an optical scan system. The study concluded that “Completing the conversion to an optical scan system would likely bring appreciable benefits with relatively modest incremental effort and expense. The lower operating costs, coupled with the elimination of future capital and maintenance expenses associated with the current touch screen system, would allow the County to recover the estimated purchase price of \$9.4 million to \$12.3 million within a few election cycles. In fact, based on the initial analysis the County could save more than \$13.21 million over five years.”

The SBE made an unfortunate mistake in purchasing the current voting system, but counties will be required to pay their share regardless of whether they continue to use the system or not. There is no doubt that the ongoing operating costs of an op-scan system will be substantially less than we are currently paying, so the crucial question is whether we would also save money in the short term even while we are paying off the purchase loan for the new equipment. Our research indicates that the costs of the new equipment, including both purchase and operating expenses, will be less than or equal to the amount we are now paying just to operate the current equipment, though this will naturally depend upon the price and terms of the new contract.

*Mickley wrote: “The US Election Assistance Commission continues to work on current Voluntary Voting System Guidelines expected in Federal Legislation in 2012. Every State will ultimately have to be sure that the system that they currently use at that time meets the new guidelines. What if the system that we purchase now does not meet the new Federal guidelines? Since we are paying on the DRE system through FY2014, in this economic crunch, would it be fair to the citizens of Maryland to end up paying for three*

*(3) voting systems concurrently if the system that was purchased did not meet the new Federal guidelines?”*

There is discussion of federal legislation that may require compliance with the *accessibility* portions of the VVSG, but this is not likely to present a concern regarding currently available accessible ballot-marking devices. Additionally, the Obama Administration has indicated forcefully that it will not approve legislation creating any unfunded mandate upon the states. Delaying the purchase of verifiable election systems in anticipation of legislation that may or may not pass, but is unlikely to require new systems, is unwise.

*Mickley wrote: “With early voting, using the DRE touchscreens makes sense. With paper, human error is involved in handing out ballots in a polling place, and has been documented in our elections that had paper ballots in years past, when only two different ballot styles were in the polling place. During early voting, some counties will have upwards of 100 different ballot styles in a polling place. With the DRE, there can be no mistake made and the person will always be receiving the correct ballot.... Changing the system now, while trying to implement early voting, could cause big problems for voters trying to cope with too much change in the process.”*

It has not yet been determined how Maryland will conduct early voting, but the current equivalent, walk-in absentee voting, is conducted solely on optically scanned paper ballots. Ten states that have statewide paper ballot systems also offer early voting, including Florida, Iowa, Nebraska, and New Mexico. Larger cities such as Sacramento, California; Cleveland, Ohio; and Raleigh, North Carolina have paper ballot voting systems and early voting, along with a large number of jurisdictions in Illinois, Texas, North Carolina, Wisconsin, and Ohio.<sup>6</sup>

As for the complexities of a polling place with multiple ballot styles, DREs are not without problems. Reports of voters being issued the wrong electronic ballot style are, if anything, more common than reports of voters being given the wrong paper ballot style.<sup>7</sup>

*Mickley wrote: “Over 60% of the voting populations in the State of Maryland, including Montgomery County, Prince Georges County, Baltimore City, and others have NEVER used a paper ballot in the polling place.... There also is no over vote on the DRE. Many votes in elections past were thrown out due to over votes on paper.”*

Optically scanned paper ballots are currently used by all absentee and provisional voters statewide. They are very similar to the standardized test forms voters have experienced in educational settings and are used for all state lotteries. They are the most widely used voting system in the nation in no small part because they provide an intuitive and simple process for casting a ballot, and precinct scanners warn voters of overvotes.

An op-scan system is a wise investment in many ways. It will:

- Significantly reduce our ongoing operating expenses;
- Be simpler to operate and have a far longer life expectancy than our current equipment;

- Provide assurance that unforeseen disasters on Election Day are recoverable without the risk of system failures that could disenfranchise voters or permanently lose votes;
- Bring Maryland in line with the direction other states and the federal government are moving; and
- Enable voters to be sure that our votes are counted accurately, and can be recounted if necessary.

If purchase of auditable, verifiable, and recountable equipment is delayed, and a razor-thin election in 2010 cannot be recounted, the decision to delay will seem unwise indeed. The General Assembly has begun a course undertaken by most of the states, a course that is essential to the integrity of our elections. We urge you to stay this course.

Rebecca Wilson, Shelley Fudge, and Robert Ferraro  
Co-Directors, SAVE our Votes

#### References:

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1. For an interactive database of Election Day problems in Maryland reported to the national OurVoteLive hotline on November 4, 2008, see: <http://www.ourvotelive.org/map.php?id=24>
  2. <http://somd.com/news/headlines/2008/8695.shtml>
  3. <http://www.saveourvotes.org/releases/2008/7-23-emergencyballots-sov.pdf>
  4. <http://www.saveourvotes.org/legislation/2008/08-costs-mdvotingsystem.pdf>
  5. <http://www.votersunite.org/info/MiamiInitialReportfromSoE.pdf>
  6. For voting systems in use, see <http://www.verifiedvoting.org/verifier>, and for states that provide early voting, see <http://www.earlyvoting.net/states/abslaws.php>
  7. <http://www.votersunite.org/electionproblems.asp?sort=date&selectstate=ALL&selectvendor=&selectproblemtyp=Wrong+ballot>

## Reference: Email from MAEO

Sent: Thursday, February 19, 2009  
Subject: Delay New Voting System

Esteemed Delegate:

The Maryland Association of Election Officials (MAEO) would like to take this opportunity to express our opposition to continuing with the purchase of a new voting system at this time. With new bills being introduced to relax the restrictions and guidelines on which the system can be bought (meaning nothing meets guidelines written now, and would result in Maryland buying old, outdated technology), Maryland is walking down the same path that it walked in 2001 upon purchasing the current system...we are jumping the gun needlessly. Concrete reasons that we should not switch systems now are listed below, and are the consensus of Maryland's Election Officials from all the local boards in the State.

1. The DRE system we have now works. We just completed performing a near flawless election on these voting units, and our election judges have perfected the operation of these voting units. The State and local boards have spent a lot of time and money on security and accountability with these units, and they were one of the biggest factors in the local boards being able to disseminate lines quickly on Election Day because of their ease of use.
2. We are still paying on these machines. The State still owes approximately \$17 million dollars on these machines, which gets spread out into county budgets through the FY14 fiscal cycle. In this economic crunch, burdening the State and local budgets with additional charges for voting equipment on top of the equipment we already owe on just does not make any sense.
3. The US Election Assistance Commission continues to work on current Voluntary Voting System Guidelines expected in Federal Legislation in 2012. Every State will ultimately have to be sure that the system that they currently use at that time meets the new guidelines. What if the system that we purchase now does not meet the new Federal guidelines? Since we are paying on the DRE system through FY2014, in this economic crunch, would it be fair to the citizens of Maryland to end up paying for three (3) voting systems concurrently if the system that was purchased did not meet the new Federal guidelines? (With the relaxation of the guidelines that we are about to buy new equipment on, this scenario is an unfortunate likelihood.)
4. With early voting, using the DRE touchscreens makes sense. With paper, human error is involved in handing out ballots in a polling place, and has been documented in our elections that had paper ballots in years past, when only two different ballot styles were in the polling place. During early voting, some counties will have upwards of 100 different ballot styles in a polling place. With the DRE, there can be no mistake made and the person will always be receiving the correct ballot. There also is no over vote on the DRE. Many votes in elections past were thrown out due to over votes on paper.
5. Over 60% of the voting populations in the State of Maryland, including Montgomery County, Prince Georges County, Baltimore City, and others have NEVER used a paper ballot in the polling place. Changing the system now, while trying to implement early voting, could cause big problems for voters trying to cope with too much change in the process.

Once again, for the reasons listed above, I implore you to consider delaying implementation of a new voting system. We realize that the upcoming election is the election that all of our Maryland Senators and Delegates are on the ballot, and we want to be able to provide the citizens of Maryland with the best, most economical voting experience that we can for you. Thank you in advance.

Guy Mickley, CERA  
MAEO President  
Deputy Director, Howard County Board of Elections  
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