

## Statement of Pamela Smith, President, VerifiedVoting.org

Thank you for offering this opportunity to offer comment on New Jersey's move toward a verifiable voting system. VerifiedVoting.org is a national non-partisan nonprofit organization dedicated to promoting accessible, transparent, reliable and publicly verifiable voting systems.

First, we would like to take this opportunity to commend the New Jersey Legislature for its foresight in passing S.507 earlier this year. S.507 mandates a statistical audit of the voter-verifiable paper records, once the state's voting systems offer such records. The audit must be powerful enough to determine with 99% accuracy that the electronic tabulating systems used in an election determined the correct winner. Statisticians interested in election integrity, as well as election activists, view New Jersey's new audit law as a model for the nation. Thank you for your leadership.

But as Governor Corzine noted in his signing statement for S.507, this excellent audit law cannot take effect until New Jersey's voting systems have voter-verified paper records or ballots to audit. It seems strange, in 2008, to be providing testimony about the urgency of a voter-verified paper ballot system, when this Legislature already passed a law three years ago requiring exactly that. Voter-verified paper records were to be deployed by the beginning of 2008, because of your leadership.

New Jersey now threatens to become unique in the nation: facing the prospect of a completely unverifiable election for the Presidency in November of 2008, despite having already mandated both paper and audits. When the Legislature acted in 2005 to require voter-verified paper records, you will be proud to know yours was the state that tipped the balance -- no longer did a minority of states have such requirements. But of the seven additional states that passed requirements since New Jersey, only one has a post-2008 deadline; the rest have long since deployed their paper ballots, except one which will do so by this summer at the latest. *Why not New Jersey?*

The State has already sought and received an extension to the 2008 deadline to secure its elections. The law said the Attorney General could grant a waiver of its provisions "*if the technology to produce a permanent voter-verified paper record for each vote cast is not commercially available.*"

But the technology to produce a permanent voter-verified paper record for each vote cast is not only available now, it was commercially available at the time the bill was passed. Voter-verified paper records can be had in the form of voter-marked paper ballots, tallied by electronic scanner-tabulators, and made accessible through the deployment of ballot marking devices – also available at the time the bill was passed, with additional models available today.<sup>1</sup> Nonetheless, there's already been one delay.

We therefore respectfully recommend opposing any further delay in the implementation of the wise choice the Legislature made in 2005. We urge you to reject Assembly Bill 2229's extension of the deadline for paper records until January 2009.

Four years ago, the nation's oldest and largest association of computer professionals, the Association for Computing Machinery, formally called for an independent, physical record of each vote. Some of its members had been urging such a record, verifiable by the voter, for years prior. Further expert analysis of voting systems has only reinforced the urgency of the need for verifiable voting systems.

Some of the most compelling work on the risks of paperless electronic voting in general has been done by computer scientists working in New Jersey. In 2006 Edward Felten, professor of computer science and head of the Center for Information Technology Policy at Princeton University, conducted a study of

an electronic voting machine, and found that vote-switching software could be written by reverse-engineering the machine, without access to the proprietary code. The malicious software could be loaded in moments, and written to avoid detection by pre-election logic and accuracy testing.<sup>2</sup> Princeton computer scientists were also contracted by the Secretary of State of California to review the source code for voting systems in the state, and discovered alarming vulnerabilities.<sup>3</sup>

New Jersey's February 5 primary election offers a powerful example of the need for records of the votes that are independent of software. In the party turnout reports, there were small but consistent discrepancies in five counties between the internal memory of the touch screen voting machines, and the printout from a secondary memory cartridge. If New Jersey has a close election this fall, and there are apparent glitches in voting systems, how will the confidence of the voters be affected?

The delay requested in Assembly Bill 2229 is due in part to behind-schedule testing—after a failed first round last year—of printers for the state's existing voting systems. This is not surprising; the printers being tested are new for this function and are of unproven reliability. But the printers are also expensive, at over \$2,000 per machine. That amount is over four times what jurisdictions in other parts of the nation have paid for printers. Attaching printers to aging voting machines is something no other state is doing – but not because they don't want voter-verified paper records.

There is a better, more cost-effective and proven alternative to the printers: a paper ballot and optical scan system that offers accessible ballot markers in every polling place for voters with disabilities. *Optical scan systems are used in more jurisdictions across the country than any other voting system.* States looking at ways to provide verifiable voting systems are overwhelmingly choosing optical scan. New Mexico abandoned New Jersey's model of voting machine by 2006, in favor of paper optical scan ballots statewide. Florida will finish its conversion to optical scan by November, and Colorado and Iowa are likely to do the same. New Jersey neighbors Maryland, Virginia and all but one New York county are moving away from e-voting and to optical scan.

New Jersey could purchase and deploy a paper ballot and optical scan system for approximately \$35 million, \$22 million of which could come from the line item set aside for new printers. The benefit of the increased investment would be significant. The Sequoia Advantage machines which would be retrofitted are aging, and may need replacement in a few years. The state could purchase proven and brand-new equipment for an additional cost of less than 50%, rather than wading into cumbersome retrofits. *We strongly recommend that you introduce and pass legislation moving New Jersey to precinct-count optical scan ballot systems and accessible ballot markers as quickly as possible.*

We respect the challenges of changing voting systems, and we do not suggest a change of voting system for New Jersey lightly. But the risks posed by paperless electronic voting are too great for delay, and a cost-effective, time-tested, reliable alternative to this system is readily available. We urge you to take advantage of this opportunity to implement the state's model law on post-election audits, provide the voters of New Jersey with a verifiable voting system in time for the November 2008 election, and **make New Jersey elections a proud model for the nation.**

---

1 Voter-verified paper record printers for electronic voting machines also have been available since 2004.

2 "Security Analysis of the Diebold AccuVote-TS Voting Machine." By Ariel Feldman, J. Alex Halderman, and Edward W. Felten. September 13, 2006. Published on the Internet at: <http://itpolicy.princeton.edu/voting/ts-paper.pdf>

3 "Source Code Review of the Diebold Voting System." Joseph A. Calandrino and colleagues. July 20, 2007. Published on the Internet at: [http://www.sos.ca.gov/elections/voting\\_systems/tbr/diebold-source-public-jul29.pdf](http://www.sos.ca.gov/elections/voting_systems/tbr/diebold-source-public-jul29.pdf)