

WRITTEN TESTIMONY OF WARREN STEWART
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BEFORE THE COMMITTEE ON HOUSE ADMINISTRATION,
ELECTIONS SUBCOMMITTEE
U.S. HOUSE OF REPRESENTATIVES
MARCH 23, 2007

Congresswoman Lofgren, Ranking Member McCarthy, members of the subcommittee, thank you for inviting me to address you in this very important hearing. I am Warren Stewart, Policy Director for VoteTrustUSA, a national non-partisan organization serving citizen based state and local election integrity groups across the country. We believe it is essential that Congress immediately address the serious shortcomings of the electronic voting systems currently used in our federal elections. VoteTrustUSA recommends the prompt passage of Voter Confidence and Increased Accessibility Act of 2007 (HR 811) because we believe it will significantly improve the accuracy and enhance the transparency of federal elections.

The most critical components of H.R. 811 are the fact that (1) it requires a voter verified paper ballot for every vote cast, which will serve as the vote of record in all recounts and audits; (2) it requires routine random audits of the electronic tallies in every federal race, which audits are to be conducted by comparing the electronic tallies to a hand-count of the corresponding voter verified paper ballots; (3) the minimum audit allowable under the bill is 3% of the precincts in the jurisdiction, and in close races, the minimum audit allowable will be either 5% or 10% of the precincts; and (4) the audits must be completed and discrepancies addressed before any federal race is certified. All of these requirements and more are desperately needed to restore, protect and preserved the integrity of the electoral system in the United States, and it is absolutely critical that they be implemented in time for the 2008 elections.

I believe that the only possible hurdle to passage of this bill is the ability of the states and localities that will have to make changes to meet the requirements of Section 2 of the Voter Confidence and Increased Accessibility Act of 2007 to cover the cost of doing so. Therefore, I have developed a cost projection, to ensure that the amount authorized by the bill is high enough. To develop this projection I determined the voting systems in use in November 2006 in the more than 3,200 counties or equivalent jurisdictions in the 50 states, the District of Columbia and the territories and the number of precincts in each of those jurisdictions.¹

Methodology

In preparing my cost projection, I organized the nation's approximately 187,000 voting precincts into three broad categories based on the voting system employed last November for in-precinct voting: those employing all paper ballot voting systems, those employing all direct recording electronic (DRE) voting systems, and those in which most voters used a paper ballot system and a DRE was provided primarily for compliance with the disability access requirements of Sec. 301 in the Help America Vote Act (2002).²

In last November's general election, just over 46,000 precincts in 35 states employed paper ballot optical scan voting systems with ballot marking systems for compliance with HAVA Sec. 301 for in-precinct voting in some jurisdictions.³ Such systems were employed statewide in 17 states. These precincts would not be required to make any changes to their voting systems to comply with the requirements of HR 811.

In the same election, just over 74,000 precincts in 27 states used direct recording electronic (DRE) voting systems for in-precinct voting exclusively.⁴ To meet the requirements of HR 811, these precincts would need to either replace their entire voting system with a paper ballot optical scan system with ballot marking systems or retrofit their DREs with compliant durable and accessible voter verified audit printers.

Around 50,000 precincts in 23 states and the District of Columbia employed paper ballot voting systems for most voters and provided a DRE for HAVA compliance.⁵ These precincts, which I will refer to as “mixed precincts”, would require the replacement or retrofit of the DRE only to comply with the new requirements of HR 811.

The DREs in around 30,000 of the all-DRE precincts (13 states) were equipped with voter verified paper audit trail printers, but these printers would not meet the HR 811 requirements for durability nor accessible verification.⁶ Similarly, DREs used for HAVA compliance in almost 27,000 of the “mixed” precincts (14 states) were equipped with voter verified paper audit printers that would not meet the requirements of HR 811.⁷

Approaches for 811 Compliance

Responding to widespread concern about the design of the current generation of audit trail printers, HR 811 requires that the voter verified paper record be printed on durable paper capable of withstanding multiple counts and recounts and preserved in a manner that would not compromise the privacy of any voter. The bill would also require that the verification of the permanent paper record be accessible to voters with disabilities.

There would be two basic approaches to meeting the durability and accessibility requirements of HR 811 are currently available. One approach would be to replace DRE systems with paper ballot optical scan voting systems with ballot marking devices for HAVA compliance. In all-DRE precincts, this would require the purchase of one precinct based optical scanner per precinct and one ballot marking device. In “mixed” precincts this would only require the purchase of a ballot marking device. The language of HR 811 would also allow the use of DREs, but only if they were able to provide every voter with the opportunity to review a software independent record of their votes that could be hand counted in post-election audits to verify the accuracy of software generated vote tallies.

I have based my cost projection on an average cost of \$5,000 for a precinct based optical scanner and \$5,000⁸ for a ballot marking device. It is not possible to anticipate the cost of HR 811 compliant add-on printers for existing DREs. Each such printer would most likely cost less than the cost of a precinct optical scanner. However, DRE voting systems require multiple voting machines in each precinct, as compared to only one scanner. The cost of retro-fitting existing DREs with printers would most likely be comparable to the cost of conversion to paper ballot optical scan systems with ballot marking systems. Based on my research the cost of bringing every precinct in the country into compliance with the requirements of HR 811 would be at least double the amount that is currently authorized in the bill (\$300 million), and in order to ensure that the states have everything they need to meet the new requirements, I would urge the Subcommittee to authorize \$1 billion in the bill.

The individual purchasing decisions and contract negotiations of counties combined with increased competition in the market for ballot marking devices and alternative accessible systems, including non-computerized systems will likely reduce this cost projection, but I strongly recommend that the authorization in this bill be increased to reflect the anticipated cost of implementation.

Review of Options

Optical scan or “marksense” voting systems employ a mature, familiar, and trusted technology that is used for every state lottery and has been used for decades in standardized tests.⁹ It has been used in voting systems since the 1970s.¹⁰ Every county in the country uses optical scanner to count absentee ballots. Michigan, Minnesota, Alabama and 15 other states employ paper ballot optical scan systems statewide. Transitions to such statewide optical scan systems are being contemplated in Florida, Iowa, and several other states. A resolution recommending optical scan voting systems was recently passed unanimously by the New York City Council.¹¹ Last year, both Connecticut¹² and New Mexico¹³ abandoned initial plans to use DREs in favor of paper ballot optical scan systems.

Optical scan voting systems have been used successfully in facilitating early voting in many states and at least one vendor is developing an optical scanner that will feature expanded capacity for urban jurisdiction and vote centers that require the storage of an even greater number of ballot styles. Paper ballot optical scan voting systems have also proven to be significantly less expensive to operate and easier for pollworkers. Beyond the initial investment in equipment,¹⁴ the inflated ongoing costs of servicing, storing, programming, and maintaining DRE voting systems that have fallen on cash-strapped counties is well documented.¹⁵

Since the passage of HAVA, innovative ballot marking systems have been developed to provide voters with disabilities and language minority voters the opportunity to privately and independently mark paper ballots, allowing jurisdictions in 33 states to retain entirely paper-based voting systems. I am aware of at least one new ballot marking device that has been submitted for EAC certification and two others that are under development. Further development of such systems is encouraged and I am pleased that authorization for the study of accessible ballot verification mechanisms is included in HR 811.

VoteTrustUSA strongly advocates the use of voter-marked paper ballot voting systems, which are fully compliant with the requirements of HR 811. HR 811 would provide funding for counties that choose to convert from DRE systems to paper ballot optical scan systems.

As for the alternative option of retrofitting DREs with printers that produce a durable paper ballot that allows accessible verification, the technology required for such printers exists but there is no add-on printers currently available that meet these requirements. Available methodologies for printed text/character recognition with audio read-back (text to speech), including off the shelf technological solutions currently marketed, should be examined for feasibility as an interim measure of providing reliable audio read-back of voter-verified paper record printouts. Such usability issues will take into account available printout designs from existing voting systems, as well as issues of privacy and secrecy of the ballot.

Conclusions

Dedicated and hard working county and state level election officials across the country recognize the importance of safeguarding the security and integrity of our election process. They are justifiably concerned about federal mandates that are not accompanied by adequate funding. We applaud the chairwoman of the full committee for her call for appropriation of the Help America Vote Act authorization and we urge that a substantially increased authorization be included in H.R. 811 and that, upon passage of the bill, Congress take immediate action to appropriate the full sum and disburse it to the

States to ensure that they have the time and recourses to implement the essential safeguards that will be mandated by in HR 811.

In closing, I also want to bring to the attention of the Subcommittee the statement former EAC Commissioner Ray Martinez to the Financial Services Subcommittee of the House Appropriations committee at a hearing two weeks ago,¹⁶ in which he described his experience in overseeing the conversion of New Mexico's electoral system from a paperless DRE system to a paper-ballot-based optical scan voting system in less than one electoral cycle. I understand that the Committee has heard from the National Association of Secretaries of State, and the National Association of Counties, each of which have argued that it is not possible to make this conversion by 2008. I think it is plainly self-evident that making such a conversion in one cycle is entirely realistic, and the example set by Governor Richardson, former Commissioner Martinez, and the State of New Mexico, demonstrates that unquestionably. You have the power to restore, preserve and protect the integrity of the 2008 elections, and I urge you to increase the funding in this bill and ensure that it will be reported to the Floor for a vote as expeditiously as possible.

Thank you for the opportunity to address the subcommittee.

¹ The most recent version of the spreadsheet containing the data used for my research is available at http://www.votetrustusa.org/index.php?option=com_content&task=view&id=2339&Itemid=1222. I want to thank Verified Voting.org and Common Cause for their assistance in gathering data for this ongoing project.

² For the purposes of this cost projection it is assumed that the 15,710 precincts in New York and 637 precincts in Connecticut that used lever machines in November, 2006 will use their previously allocated HAVA funds to purchase HR 811 voting equipment and so are not included. Massachusetts recently announced their intention to use HAVA funds to purchase ballot marking devices and that state is treated, for the purposes of this study, as if they had purchased the equipment for use in November, 2006.

³ States using entirely paper ballot systems statewide – Alabama, Idaho, Maine, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New Mexico, North Dakota, Oklahoma, Oregon, Rhode Island, South Dakota, and Vermont. When they complete their HAVA purchases, Connecticut and Massachusetts will have statewide paper ballot systems. States with some jurisdictions using entirely paper ballot systems – Arizona, California, Colorado, Illinois, Indiana, Iowa, Kansas, Mississippi, Missouri, North Carolina, Ohio, Pennsylvania, Texas, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

⁴ States using DRE systems exclusively for in-precinct voting statewide – Delaware, Georgia, Louisiana, Maryland, Nevada, South Carolina, Tennessee, and Utah. States in which some jurisdictions used DRE systems for all in-precinct voting – Arkansas, California, Colorado, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Mississippi, New Jersey, North Carolina, Ohio, Pennsylvania, Texas, Virginia, Washington, West Virginia, and Wisconsin.

⁵ States employing paper ballot voting systems and DREs for in-precinct voting statewide – Alaska, District of Columbia and Hawaii. States in which some jurisdictions employed paper ballot voting systems and DREs for in-precinct voting – Arizona, Arkansas, California, Colorado, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Missouri, North Carolina, Ohio, Pennsylvania, Texas, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. For the purposes of this analysis, “mixed” precincts do not include precincts in Connecticut and New York that employed lever machines and an accessible BMD or DRE (see note 2 above).

⁶ States using exclusively DRE with VVPAT printer for in-precinct voting – Nevada and Utah. States in which some jurisdictions used exclusively DRE + VVPAT printer for in-precinct voting – Arkansas, California, Colorado, Illinois, Mississippi, New Jersey, North Carolina, Ohio, Washington, West Virginia, and Wisconsin.

⁷ States with “mixed” precincts, employing DREs with VVPAT printer for in-precinct voting statewide – Alaska, and Hawaii. States with “mixed” precincts employing DREs with VVPAT in some jurisdictions – Arizona, Arkansas, California, Colorado, Illinois, Missouri, North Carolina, Ohio, Washington, West Virginia, Wisconsin, and Wyoming.

⁸ These estimates are based on discussions with representatives of voting equipment and a survey of available actual costs incurred by several states in purchasing precinct based optical scanners and ballot marking devices from various manufacturers and third party vendors.

⁹ http://en.wikipedia.org/wiki/Optical_scan_voting_system

¹⁰ A discussion of optical scan voting technology can be found in the EAC testimony of Michael Clingman, Oklahoma Election Director, www.eac.gov/docs/June%203%20Optical%20Scan%20-%20Clingman.doc.

¹¹ www.nyccouncil.info/issues/intros_act.cfm?intro=Res%200131-2006

¹² See <http://www.sots.ct.gov/releases/2006/9-13-06-25TownsChosenToUseOpticalScanMachinesThisYear.pdf>

¹³ www.freewmexican.com/news/40228.html

¹⁴ www.nyvv.org/doc/AcquisitionCostDREvOptScanNYS.pdf

¹⁵ <http://www.votersunite.org/info/costcomparison.asp>,
<http://www.votersunite.org/info/MiamiInitialReportfromSoE.pdf>, [http://www.
utahcountvotes.org/US/EhrlichLetter_20060215.pdf](http://www.utahcountvotes.org/US/EhrlichLetter_20060215.pdf)

¹⁶ The transcript has been requested from the financial Services subcommittee for submission for the record of this hearing.