



Association for
Computing Machinery

Advancing Computing as a Science & Profession

July 24, 2007

Senator Diane Feinstein
Chairwoman
Senate Rules Committee
United States Senate
305 Russell Building
Washington, D.C. 20510

Delivered via fax: 202 228-2401

Dear Senator Feinstein,

The Association for Computing Machinery (ACM) – a leading society for computing professionals – and its U.S. public policy committee have taken a leadership role in educating the public and policymakers about issues associated with electronic voting machines. We thank you for your leadership on voting reform issues and for holding hearings on this issue.

The concern over unverifiable e-voting machines is widespread throughout the computing community. In a 2004 poll that ACM conducted of its members, 95 percent of those responding indicated that they have serious concerns about electronic voting machines – concerns that should be addressed with specific safeguards. In an effort to bring the community's concerns to policymakers, ACM adopted a policy statement (enclosed) in support of voter-verified audit trails.

This statement recommends that all voting systems – particularly computer-based electronic voting systems – embody careful engineering, strong safeguards, and rigorous testing in both their design and operation. Many of our members maintain that an appropriate way of supporting these goals is for voting systems to produce physical (e.g. paper) records or ballots that can be verified by the voter. Furthermore, these records or ballots should be easy to audit or recount manually.

When properly implemented, these physical records can also serve as an independent check on the results produced and stored in voting systems. Such records are vital to preserve the option of performing a meaningful recount in the cases of possible errors or

suspected fraud. These records should also be audited on a random basis to ensure the accuracy of electronic counts.

Unfortunately, many electronic voting machines do not provide a voter-verifiable audit trail. Using such machines is risky. When problems or unusual results leave an election in doubt, conducting a transparent and credible recount becomes extremely difficult, leaving election officials with no choice but to conduct a revote or accept the existing results. Audit trails (if they exist) that are not physical and voter-verified may not accurately reflect the votes cast when undetected errors or tampering alter the outcomes of elections. The resulting lack of certainty in the results, especially in close races, not only undermines the accuracy of the vote, but also may serve to diminish citizen confidence in the fairness of the process.

A number of the principles that ACM identified in its policy statement are embodied in legislation you have introduced – The Ballot Integrity Act of 2007 (S. 1487). However, the details of how legislation implements these reforms are critical. We are still reviewing this proposal and will provide specific comments and suggestions in a follow-up letter.

ACM's and USACM's mission is to provide non-partisan scientific data, educational materials, and technical analysis to policymakers. Please feel free to contact ACM's Office of Public Policy at (202) 659-9711 if we can provide any assistance on this or related issues.

Sincerely,

Eugene H. Spafford, Ph.D.
Chair, ACM U.S. Public Policy Committee (USACM)

Barbara Simons, Ph.D.
USACM E-voting Subcommittee Chair

Enclosures: ACM Voting Statement
USACM Letter on Software Independence

About ACM and USACM

ACM is a non-profit educational and scientific computing society of more than 84,000 computer scientists, educators, senior managers, and other computer professionals in government, industry, and academia, committed to the open interchange of information concerning computing and related disciplines. The Committee on U.S. Public Policy acts as the focal point for ACM's interaction with the U.S. Congress and government organizations. It seeks to educate and assist policy-makers on legislative and regulatory matters of concern to the computing community. (See <http://www.acm.org> and <http://www.acm.org/usacm>.)