May 29, 2001

The Honorable Sherwood L. Boehlert
Chairman
House Committee on Science
2320 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Boehlert:

As the Co-Chairs of the U.S. Public Policy Committee of the Association for Computing Machinery, we are writing to offer the following recommendations as Congress considers policy issues related to voting technology and standards.

First, we agree with the National Science Foundation's E-voting Workshop, the California Internet Task Force and other distinguished experts in concluding that it is premature to pursue fully electronic and especially Internet based voting at this time. While the Internet and certain automated electronic systems such as Automatic Teller Machines have transformed the way society communicates and performs other functions, vulnerabilities exist that threaten confidentiality, integrity and authenticity if such systems were utilized for voting. As a result, such vulnerabilities might allow significant instances of fraud, abuse or accident that could subvert fair voting. Despite the claims of vendors, continued information technology and computing research is necessary to address both known and unknown vulnerabilities of Internet and fully electronic voting.

Second, there is a critical need to simultaneously use and improve upon current voting technology standards and criteria. Although current standards and criteria are limited, they perform an important role and should be promoted and used universally. The Federal Election Commission, the National Institute of Standards and Technology and private sector standards developers should work in partnership with the scientific and research community in the development of criteria, standards, test methods and certification processes to improve current voting systems and address emerging voting technologies. It is counterproductive to make costly investments in new voting systems absent more complete standards and criteria.

Third, specifications and source code of voting technologies and election procedures should be available to distinguished independent computing experts for comprehensive technical review. While doing so does not ensure security, it is an important first step and enhances public confidence in the election process. Independent technical review also assists in promoting the development and deployment of interoperable systems built upon open architectures.

Finally, voting technologies should provide an independent audit trail to voters at the time of voting in a manner that preservers anonymity. Demonstrating to voters that their votes have been recorded accurately and anonymously is important to voter confidence. As all technologies are prone to error, providing a mechanism for audit creates

opportunities for recounts if necessary. Providing the ability to audit, recount and preserve anonymity underscores the complexity involved in designing voting technologies.

While we recognize growing public demands seeking a technological solution to voting problems, we urge Congress to review the complex technical issues as outlined above in formulating voting technology and standards legislation. The potential risks of fully electronic and especially Internet based voting are enormous and comprehensive technical assessments must be conducted by vendor neutral experts. The well intentioned but premature establishment of a vulnerable system for voting could result in unintended consequences undermining the confidence, integrity and accuracy of the nation's electoral process.

Comprised of computing professionals from academia, industry and government, the U.S. Public Policy Committee of the Association for Computing Machinery is pleased to offer our unbiased technical expertise to assist policy makers in the development of computing and information technology policy. Please contact Jeff Grove at (202) 659-9711 if we can be of assistance to your efforts.

Sincerely,

Barbara Simons, Ph.D.
Eugene H. Spafford, Ph.D
Co-Chairs
U.S. ACM Public Policy Committee
Association for Computing Machinery

About USACM:

USACM is the U.S. Public Policy Committee of the Association for Computing Machinery (ACM). ACM is the leading nonprofit membership organization of computer scientists and information technology professionals dedicated to advancing the art, science, engineering and application of information technology. Since 1947, ACM has been a pioneering force in fostering the open interchange of information and promoting both technical and ethical excellence in computing. Over 70,000 computer scientists and information technology professionals from around the world are members of ACM.