Statement for U.S. Election Assistance Commission News Conference

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This is the statement of Computer Professionals for Social Responsibility (CPSR) regarding electronic voting. With offices in Palo Alto, CA, CPSR is a public-interest alliance of computer scientists and others concerned about the impact of computer technology on society. CPSR was formed in 1983, and has members throughout the country.

CPSR began research on voting systems in the mid '80s. We have researched election systems, observed elections, commented on voting systems standards, and participated in the administration of elections. In 1994, CPSR sent a team to the Republic of South Africa to assist that nation in the historic elections of that year. We have written numerous papers and reports on elections systems and spoken at elections administration conferences. Our work has been reported in newspapers, magazines such as Wired magazine, and broadcast media.

CPSR urges the commission to carefully consider how the resources available for elections can be spent so as to maximize the accuracy and security possible at that level of expenditure. Touchscreen-type voting systems offer the promise of lower materials costs, but this must be balanced against potentially higher expenses for poll-worker training and voter education. Furthermore, materials cost savings are a false economy, if they come at the expense of election security.

A further problem with touchscreen system is that a meaningful logic and accuracy (L&A) test is all but impossible to conduct. Thus, other security measures must be substituted for L&A testing, to ensure accuracy. These additional security measures absolutely must be provided. The only such security measure is to record the voter's votes on a piece of paper or other durable object, and allow the voter to verify their votes by examining this object. This is often referred to as "voter-verifiable paper trail". Furthermore, as the last thing the voter examines before they commit to voting, this paper record must be considered the actual ballot of the voter: the electronic memory of the touchscreen machine contains a count of votes, but not a particularly trustworthy count at that. If the paper record and the electronic record should differ, the electronic record must yield priority to the paper.

Considering the difficulty of making touchscreen-type voting systems even tolerably trustworthy, it's worth asking if they are actually the best system available for voting. CPSR concludes that these machines are not the best elections systems available, even with the addition of a voter-verifiable paper trail. A voter-verifiable paper trail transforms a dangerous voting system into a mediocre one. America's voting needs can be better met by systems, such as optical scan, which have demonstrated a level of reliability and trustworthiness that touchscreen systems have never come close to, and probably will never achieve. Broken touchscreen systems must be patched-up, but it is better still to vote on systems that are not a patchwork in the first place. CPSR's Voting Technology Working Group