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Douglas W. Jones

January 15, 2007

Senator Kenneth Gordon
Senate Majority Leader
State of Colorado

The Honorable Michael Coffman
Secretary of State
State of Colorado

Dear Senator Gordon and Secretary Coffman:

I am submitting comments on postal balloting, which I understand is being considered as an alternative to conventional polling places in Colorado.

I am an associate professor of computer science at the University of Iowa. I served on the Iowa Board of Examiners for Voting Machines and Electronic Voting Systems for a decade ending in 2004 and was board chairman from late 1999 to early 2003. I have testified on voting technology before the United States Civil Rights Commission on January 11, 2001, before the House Science Committee on May 22, 2001, and before the Federal Election Commission on April 17, 2002. I consulted for Miami Dade County during the runup to the fall 2004 primary, and I consulted for the Arizona Senate Government Accountability and Reform Committee in December 2005, contributing to their investigation of the Arizona District 20 Republican Primary in 2004.

Along with co-investigators from Stanford, Berkeley, Rice and Johns Hopkins University, I am a principal investigator in NSF Grant CNS-052431 (ACCURATE), a 5-year competitive award starting in October 2005 establishing A Center for Correct, Usable, Reliable, Auditable, and Transparent Elections. I served on the Brennan Center for Justice Task Force on Voting System Security, contributing to their report *The Machinery of Democracy: Protecting Elections in an Electronic World* released in Spring 2006.

I testified in *Conroy vs. Dennis*, argued before the District Court, City and County of Denver, on September 20, 2006. Internationally, I served on the Organization for Security and Cooperation in Europe Election Observing or Assessment Missions for the December 4, 2005 presidential elections in Kazakhstan, and for the November 22, 2006 Parliamentary election in the Netherlands.

I am wary of large-scale use of postal ballots for several independent reasons:

1. Postal ballots and other forms of remote voting reduce ballot secrecy.
2. Postal ballots are less secure than in-polling-place voting.
3. Postal ballots are not counted as accurately as those voted at the polls.

I will address these issues separately in what follows.

Postal ballots and other forms of remote voting reduce ballot secrecy.

When votes are cast in the security of the voting booth, it is relatively easy for both the polling place officials and any others present to be assured that nobody is observing how particular voters have voted. Such observation has long been a threat to democracy. Votes can only be bought and sold if the buyer has some certainty that the seller has voted as instructed, and the threat of retribution against voters who vote incorrectly is far less significant if the voters know that their vote is secret.

With postal voting, as well as with other forms of remote unsupervised voting such as Internet voting, members of the public have no way to assure themselves that the votes of others have not been bought or coerced. Of course, we make such sale or coercion illegal, but there is little we can do to assure ourselves that it is not taking place. If a voter decides to permit someone to watch over their shoulder while filling out a ballot, it is between those two people.

Not all violation of ballot secrecy is as obvious as buying ballots or threatening people who vote incorrectly. Consider the case of someone who holds a voting party, a social event where the attendees are invited to bring their absentee ballots, fill them out and mail them as a group. Such events can easily be organized so that they appear no more threatening than any other get-out-the-vote activity. On the other hand, it is quite possible to arrange such an event so that voters fill out their ballots openly, so that so that others can see how they are voting. Churches, unions and similar organizations could easily use such events to apply strong social pressure on their membership to vote correctly. No fault absentee voting and universal postal voting both serve to enable such “soft” attacks on ballot secrecy.

I live in Iowa, a state where about one in three votes is cast by absentee ballot. I am told that in Phoenix Arizona, the absentee vote is closer to two in three. In both cases, however, absentee ballots are lumped together with ballots cast at satellite polling places during early voting. From the point of view of ballot secrecy, these are very different. Satellite polling places offer voting booths and the possibility of public observation, so that it is easy to see that voters are indeed voting in secret. Postal absentee ballots offer no such protection. One California voter, for example, reported to me that his landlord had asked him to vote for his landlord in the California gubernatorial recall election of 2003.

In general, democratic institutions in the United States are deeply rooted. I expect that in the first decade of universal postal voting, the abuses of this voting method would not be widespread. On the other hand, with the passage of time, I can easily envision the emergence of “soft” attacks on ballot secrecy, and as these become accepted social

institutions, I can imagine the attacks hardening.

Once we allow the right to a secret ballot to be eroded, and once that erosion comes to be exploited, it is very difficult to see a road back to a healthy democracy. I would prefer, therefore, to retain the protection of conventional polling places, and to augment this with the use of satellite polling places for early voting.

Postal ballots are less secure than in-polling-place voting.

Postal ballots are handled by more people than any other form of ballot, and each of the people handling them has the opportunity to disrupt things. Yes, it is illegal for a postman to tamper with the mail, and yes, the vast majority of all mail in the United States is delivered promptly and in good condition. On the other hand, we have no way of preventing a postman from selectively losing ballot envelopes being mailed from a neighborhood whose demographics he dislikes.

On October 29, 2004, the Palm Beach Sun Sentinel reported that internal post-office E-mails suggested that the post office may have been at fault for the loss of 58,000 ballots in Broward County. On October 25, 2004, The Oregonian reported that a mail sorting “glitch” led to some ballots being lost.

It takes an army of clerks to stuff and mail postal ballots. Clerical staff must assemble mailings containing not only the ballot but return envelopes, instructions and, in most cases, a very inadequate ballot marker or pencil. On receipt, the clerical staff must open the envelopes, verify the signatures, separate the ballots from their privacy sleeves and stack the ballots for scanning. Many of these clerks are in a position to alter the ballots.

In the September 7, 2004 Republican Primary in Maricopa County Arizona, the Phoenix New Times reported, on February 9, that inmates from the county jail had been used as clerical workers for ballot processing. Unfortunately, some of these inmates appear to have used the opportunity to pre-mark some of the ballots they processed. Eliminating the use of inmates, of course, does not eliminate the temptation to tamper with ballots.

Assurance of transparency in postal ballot processing is extremely difficult. We know to send observers to polling places, and we know how to instruct them about what to observe. The right to observe the procedure surrounding postal balloting is not as well established, and we have far less experience, so it is harder to instruct the observers. Postal ballot processing takes place over several weeks, and generally, even if there are observers, they rarely observe the entire process.

We have excellent laws governing the layout and organization of polling places, while the layout and organization of clerical offices used for ballot processing is entirely unregulated. Where do observers watch from? How do we ensure that no part of the ballot processing occurs without the possibility of observation? These questions should have been answered years ago, when restrictions on absentee ballots were lifted so that all voters, regardless of circumstance, were allowed to vote absentee.

Postal ballots are not counted as accurately as those voted at the polls.

Since the passage of the Help America Vote act in 2002, voters at the polls have been

entitled to the right to technology that prevents them from casting overvoted ballots, that is, ballots where, in some race, they have voted for more than one candidate. In fact, mechanical voting machines have prevented such errors for over a century. When voting on machines, whether mechanical or electronic, voters are simply prevented from overvoting. When voting on paper ballots at the polling place, HAVA requires that overvoted ballots be returned to the voter by the ballot tabulating machine.

In contrast, when voting by mail, if the ballot tabulator detects an overvote, the ballot cannot possibly be returned to the voter, allowing the voter to restate his or her intent. The best that can be done is to pass the overvoted ballot to the canvassing board, while in many jurisdictions, this is not done, and overvotes are simply discarded.

In rare cases, overvotes are the result of deliberate actions on the part of a voter, but they may have many other causes. Flecks of debris in the wood pulp from which the ballot paper was made, specks of ink from the printing press, smudges from any of the many hands that handled the ballot, and accidental marks made by the voter are all realities.

Damage created by the post office is also quite possible. While the post office has an excellent record of delivering most mail in good condition, some mail arrives at its destination seriously damaged. Where ballots are marked with pencil or some kinds of ink, vibration and pressure can sometimes transfer faint ghosts of marks from one side of the fold in a ballot to the other.

A machine recount of the ballots from the September 7, 2004 Republican Primary in Maricopa County Arizona found four percent more votes on the recount of the absentee ballots than it found on the first count. This recount was conducted on the same ballot tabulators as the first count, and when I tested those machines in December 2005, I discovered that the sensitivity of the different tabulators differed sufficiently that significant differences in the count could be expected depending on which ballots were scanned by which tabulators.

On September 23, 2004, Fred Berghoefer, Secretary of the Arlington, Virginia Electoral Board testified before the Technical Guidelines Committee of the Election Assistance Commission that he had seen residual vote rates of from five to ten percent on top-of-the-ticket races on absentee ballots. The residual vote rate is the sum of deliberate abstentions by voters, deliberate overvotes, and mismarkings that the ballot tabulator is unable to read as a vote. In contrast, the residual vote rate he observed at polling places was under one percent. This strongly suggests that absentee ballots, as used in Arlington Virginia, discriminated against from four to nine percent of the voters, preventing them from effectively registering their intent. This number is in line with the numbers from Maricopa county.

These low accuracies for absentee vote counting were of little concern when most ballots are voted at the precinct, and only a few postal ballots are counted. Our postal ballot counting procedures have mostly evolved from such conditions. Now, with 30 to 60 percent of the ballots being cast by mail in some jurisdictions, this is unacceptable.

Fred Berghoeffer told me, after his testimony before the Technical Guidelines Development Committee, that he had improved the residual vote rates in Arlington

considerably by requiring that the canvassing board hand-examine every ballot containing an overvote. He was confident that he could save four percent of all voter's voting rights by doing this, but I am worried. While this is better than throwing those votes on the floor, the rights HAVA gives to voters at the polling place are better still. At the polling place, voters can correct their own ballots, instead of leaving this correction to the judgment of the canvassing board.

My work in Phoenix, reported to an Arizona Senate committee on Jan. 12, 2006, suggests that it is important to subject a sample of the ballots to an eyeball review in order to make sure that the mark-sensing thresholds of the scanners, as used in the tabulation, match an intuitive sense of what marks ought and ought not to count as votes. This is essential, in part, because postal voters don't have scanners themselves, so they have no way of knowing with any degree of certainty that their votes are being counted as intended.

Concluding Remarks

In sum, I would be more comfortable if use of postal voting be restricted to those with a genuine inability to go to the polls. I said this in my testimony before the House Science Committee on May 22, 2001, and I stand by it.

I distinguish between postal voting and the use of satellite polling places. These are frequently authorized under the same laws in many states, but satellite polling places, set up over the days and weeks before an election in public places such as libraries, hospitals, shopping malls and supermarkets, offer a great compromise. Satellite polling places can extend, to the voter, the same rights that HAVA grants voters in the polling place on election day.

Given that postal ballots typically cost the county several dollars per ballot in envelope stuffing and postal charges, if a polling place collects, say, 500 ballots in one day, that's equivalent to \$1000 in postal ballot costs, and this savings can easily pay a staff of, say, 5 county employees at \$10 per hour for 10 hours of work (a total cost of \$500). This is a net savings of 50 percent. Thus, polling places can be more cost-effective than postal voting.

Furthermore, postal voting eliminates essentially all of the handicapped accessibility that HAVA promised. Handicapped people are generally the least mobile segment of our community. Requiring blind voters to travel to one or two "accessible polling places" in the county is a horrible disservice, again, far less than the promise of HAVA.

Sincerely

A handwritten signature in black ink, appearing to read 'Douglas W. Jones', with a long horizontal line extending to the right.

Douglas W. Jones