

The Honorable Deborah Markowitz  
Secretary of State  
26 Terrace Street  
Montpelier, VT 05609

October 21, 2010

Dear Secretary Markowitz,

Thank you for your decision to conduct a random hand-counted audit of ballots cast this November. As post-election audits are authorized but not required under Vermont law, we applaud this move to reinforce confidence in election results.

However, we are concerned regarding the recently published procedures for the post-election audit of Vermont's optical scan tabulators. The audit, as currently designed, calls for the random drawing of 2% of optical scan polling places to take place on Monday October 26—in advance of Election Day and initial vote counts.

One of several benefits of a post-election vote tabulation audit is to deter fraud. Announcing the names of the polling places whose tabulators will be audited effectively defeats that important purpose. While we realize the posted procedures permit the selection of additional audit units after Election Day, we recommend in the strongest possible terms that all audit units be selected after the initial counts are published.

A further concern is the length of time between the selection process and the actual audit. Apart from the few hours needed for pulling the necessary election materials to be audited, and potentially transporting those materials if the audit is not to be conducted in the location where they are stored, there is little need for an extensive gap between selection and count, and best practices recommend for the count to commence as soon as feasible after the selection is complete. Some jurisdictions accomplish this nearly simultaneously, where counts are carried out in the location where ballots are stored, doing audits the same day or on consecutive days from the selection.

Finally, a great advantage of conducting an audit is the possibility of identifying issues which may need correction, including in some cases problems with vote counts that could potentially result in a recount. It is our understanding that this post-election audit will commence after election results have been made final. Should issues with the counts be identified, this could make the timing of the audit unfortunate. The audit should commence once the initial canvass has been completed, but before finalizing all results, to allow it to serve its many purposes, not the least of which is helping ensure the correctness of the outcome.

In closing, we would draw your attention to two resources, the “Principles and Best Practices for Post-Election Audits” (available on the Web at <http://www.electionaudits.org/principles.html>) and the official statement of the American Statistical Association on margin-dependent audits, (available at [http://www.amstat.org/outreach/pdfs/Risk-Limiting\\_Endorsement.pdf](http://www.amstat.org/outreach/pdfs/Risk-Limiting_Endorsement.pdf)). Both of these resources discuss “risk-limiting” audits, which employ a statistical sampling method dependent on the margin of victory in an audited race, with pre-specified procedures for continuing the audit if auditors discover

discrepancies between the manual and the machine count in the initial sample of precincts. As both documents discuss, though, an audit of a fixed initial sample of precincts (e.g., 2%) can be of great value in discovering widespread problems and deterring malfeasance.

We thank you for taking the time to consider our concerns, and we look forward to working with you in the future.

Regards,

Arlene Ash  
Fellow of the American Statistical Association and  
Professor, University of Massachusetts Medical School, Worcester MA

Joseph Lorenzo Hall  
University of California, Berkeley and Princeton University

Sally Morton  
President (2009), American Statistical Association

Pamela Smith  
President, Verified Voting