



ELECTRONIC PRIVACY INFORMATION CENTER

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Statement  
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National Committee for Voting Integrity (NCVI)  
House Committee on Administration  
Subcommittee on Elections  
“Election Reform: Auditing”  
March 20, 2007

*“Elections require an end-to-end concern for a wide variety of integrity requirements, beginning with the registration process and ballot construction, and continuing through vote tabulation and reporting.” – Peter Neumann*

Our thanks go to the House Committee on Administration’s Subcommittee on Election’s Chair Zoe Lofgren and Ranking Member Kevin McCarthy for holding today’s hearing, “Election Reform: Auditing.” The Electronic Privacy Information Center (EPIC) based in Washington, DC is submitting this statement on behalf of our voting project the National Committee for Voting Integrity. EPIC is a public interest research center in Washington, D.C. It was established in 1994 to focus public attention on emerging civil liberties issues and to protect privacy, the First Amendment, and constitutional values.

The delicate balance between the state’s right to ensure that intimidation and election fraud are not present in public elections and the voter’s right to privacy have resulted in the development of the secret ballot and restricted zones around voting compartments.<sup>1</sup> Because of the documented history of voter intimidation, coercion, and fraud associated with third party knowledge of how individual voters cast their ballots, it is important not to underestimate the importance of voter privacy when establishing audit requirements.

Auditing is typically used in relationship to financial matters. An independent body defines auditing in most settings as an official inspection of an individual or an organization’s accounts. The conditions for effective auditing is dependent on well defined and established rules for conducting reviews called audits. The challenge before the House Administration Committee is to create a process that will lead to the establishment of “Generally Accepted Election Auditing Procedures,” which will not compromise voter privacy and be meaningful in a public election.

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<sup>1</sup> Burson v. Freeman, 504 U.S. 191, 207-208 (1992).

Auditing is not just a governance issue, but also collaboration among interests in support of the auditing process. Financial institutions are not the victims of audits they often are the source of developing good auditing practices and support the professional development of audit administrators. Audits in financial settings are so routine and designed to facilitate transparency that we often take them for granted: our bank statements, receipts from stores, and providing proof of expenditures for business trips are all part of auditing processes.

The key components of audits are the cooperation of those conducting audits and those being audited, a clear understanding of what is to be audited, well defined definitions of what meets, falls short, or exceeds expectations, and identification of those who are ultimately responsible for collecting and maintaining the infrastructure of audited entities. A very important condition of auditing is that the results are not kept secret. The values of audits are found in how they are used to instill public trust and create stability in institutions. This is not to say that audits always work and that the means deployed during accounting reviews are flawless—Enron and Worldcom are examples of when auditing procedures have failed. Even in these failures we see the benefits of routinized auditing and the mechanisms that have been developed to instill discipline in the accounting of institutions. What is encouraging is the system of accounting; auditing, regulatory mechanisms, and corporate actions are joined to close the loopholes or oversight flaws that allowed those problems to go unchecked. Because of the Enron/Worldcom scandals we know that auditing will not be a cure all, but a process that can facilitate and foster constant self-improvement.

The challenge before the committee is to effect reform of the public election systems to include an audit process that is meaningful and measurable. Managing this task will require taking lessons from a wide range of disciplines: accounting, organizational theory, election administration, and public administration to name a few. The goal should be to develop audits that are not just functional, but meaningful. To accomplish this, election auditing must be transparent to the public. Public elections are commanding greater resources each election cycle with campaigns beginning earlier and the demands for funding reaching outrageous proportions, while at the same time the margins of victory are becoming razor thin. Candidates, voters, public officials, and the media are demanding more accountability from the process of public elections. There must be a means of determine if there is has measurable legitimacy underlying process that results in a victor.

## Transparency

Transparency is a key component of a functioning healthy democracy. It can be translated into public policy decisions that allow citizens, policymakers, and the media to assure themselves that a local, state or federal government agency is functioning as intended. In this context, the process of providing transparency is referred to as "open government." Open government can be accomplished in a number of ways, which may

include: public meetings, public rulemaking notices, reasonable public comment periods, access to rulemaking proceedings, official reports, and open records laws.<sup>2</sup>

Open records laws should include the statistical information that would be a key component of any audit process. Audit is a valuable means of providing transparency, but to be meaningful the data or information used as the basis of audits must be available to the public. We are routinely conducting elections on the local, state, and federal level, which do not provide access to election statistics by polling location and precincts. The aggregate total of poll book registrations, total votes cast in each race, total undervotes and overvotes, the machine model, type, and number assigned to the smallest political unit should be available to the public 24 hours following Election Day. Public disclosure of the rules regarding provisional ballots, the meetings' schedule of election certification authorities, and the method of contesting elections by member of the public should not be mysteries. Some states and localities do a better job than others in providing access to election related statistics and information. The disparity in making election information available online may be related to resources, expertise or routines that have been established over many years.

The guidance to states on the administration of elections should include strong support of open government procedures that allow public access to the election administration process. Historically, the election administration community, voting rights community, media, and partisan efforts looked closely at how elections were managed. This list of constituencies has grown to include technologists, election reform advocates, and concerned citizens. Guidance to states should make them aware of the challenges to transparency posed by not making easily accessible election related statistics. Implementation of public elections should included transparency at every phase of the process. Auditing is another tool for ensuring transparency in public elections.

EPIC does not oppose the use of electronic voting systems, however, we do believe that there should be more care taken to be sure that when they are adopted that they can do what they are intended to do in an election. We think that electronic voting systems are here to stay and that they will improve overtime. However, electronic voting systems must go through a meaningful standards process that will weed out bad designs and flawed technology. Next electronic voting systems should have established audit procedures to be sure that they are functioning as intended before, during, and after elections. Machines can appear to be working--the screen comes on, but that does not mean that everything is functioning like it should. Finally election administrators, poll workers, and voters need more training on the use of electronic voting systems., and election audit data collection.

## Audits

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<sup>2</sup> Lillie Coney, Testimony, Election Assistance Commission, April 26, 2005, available at [http://www.epic.org/privacy/voting/register/eac\\_testimony42605.html](http://www.epic.org/privacy/voting/register/eac_testimony42605.html)

Audits are driven by the availability of information. Most individuals have bank accounts which must be reconciled or at a minimum the balance known by both the bank and the account holder. Should we have a disagreement with our financial institution we have access to information that we can rely on to make inquiries.

If we look at public elections from an auditing frame of mind we can see that we are not being given access to enough information to reconcile the results of elections with our expectations of auditing in other settings. The process of auditing should be a series of review that encompass pre and post election activity.

Election Administration has fundamentally changed with the introduction of electronic voting systems. However the problems and challenges that they face have not. How will poll worker training change with the requirements of election audits, such as chain of custody, accounting for marked and unmarked ballots, reconciling poll book registrations—both electronic and paper?

Today it is not enough that vendors assure states that paperless voting systems can reliably retain vote information, those systems must be proven to do so. The ability to establish auditing as a routine part of election administration would go a long way in making the case for the reliability of public elections. Auditing should also include a record of systems failures that resulted in lost votes.<sup>3</sup> Ballots lost from electronic voting systems used in North Carolina and Florida in 2004 attest to the need for more rigorous voting technology standards.<sup>4</sup> There is also a need to ensure routine access to ballot

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<sup>3</sup> Lillie Coney, Testimony, Election Assistance Commission, August 23, 2005, available at [http://www.epic.org/privacy/voting/eac-8\\_23.pdf](http://www.epic.org/privacy/voting/eac-8_23.pdf)

<sup>4</sup> Voters Unite, Report, Myth Breakers: Facts About Electronic Elections, available at <http://www.votersunite.org/MB2.pdf>

“Electronic Voting Machines Lose Ballots Carteret County, North Carolina. November 2004. Unilect Patriot DRE A memory limitation on the DRE caused 4,438 votes to be permanently lost. Unilect claimed their paperless voting machines would store 10,500 votes, but they only store 3,005. After the first 3,005 voters, the machines accepted -- but did not store -- the ballots of 4,438 people in the 2004 Presidential election. Jack Gerbel, president and owner of Dublin-Calif.-based UniLect, told The Associated Press that there is no way to retrieve the missing data. Since the agriculture commissioner's race was decided by a 2,287-vote margin, there was no way to determine the winner. The State Board of Elections ordered a new election, 10 but that decision is being challenged in the court.

Palm Beach County, Florida. November 2004. Sequoia DRE Battery failure causes DREs to lose about 37 votes. Nine voting machines ran out of battery power and nearly 40 votes may have been lost. ... The nine machines at a Boynton Beach precinct weren't plugged in properly, and their batteries wore down around 9:30 a.m., said Marty Rogol spokesman for Palm Beach County Supervisor of Elections Theresa LePore. Poll clerk Joyce Gold said 37 votes appeared to be

images for recount and election audit purposes. Last year's California Primary election resulted in a legal challenge, *Soubirous v. County of Riverside*, when a candidate lost an election contest by 45 votes. In 2006, Sarasota County Florida joined this ever-growing list of jurisdictions that have experienced electronic voting system related election failures. The candidate was denied access to the memory and audit logs of the Sequoia electronic voting machines purchased the Riverside County Board of Supervisors, which resulted in a court challenge.<sup>5</sup>

The process of audits should not be limited to the ballot casting, retention, and tabulating processes. It should also include an end-to-end audit of all electronic voting technology such as electronic poll books and statewide-centralized voter registration databases. For example, pre-election audits might focus on the design of ballots, investigation of statewide-centralized voter registration systems, and evaluation of the readiness of voting systems for use in the election.

Accuracy of voter registration lists is a vital component of election integrity. Electronic voter registration and centralized registration databases present challenges to accuracy. Knowing when and how voter registration records are created, amended, or active status is changed to inactive is important to establishing and maintaining accuracy. To maintain an accurate single centralized list of all legally registered voters should support the retention of all information gathered during the registration process. This approach to voter registration list should include the information of those applications that are rejected, deemed to be invalid or missing vital information related to a successful registration. Keeping all records will better inform citizens, voters, interested third parties, election administrators on the implementation of voter registration rules and support auditing.

States that have well defined accountability and authorization procedures will be better able to define and establish processes to ensure the security, integrity, availability, and confidentiality of voter registration information. Auditing of voter registration databases should include accountability and authorization procedures functional in a complex data structure. Database such as theses will require the appropriate and correct application of cryptographic techniques and validation that they are being used correctly. As an auditing tool when correctly applied cryptography can assist to create authentication, integrity, and nonrepudiation of database users.

Proper application of cryptography does not rely upon keeping the way the algorithm works a secret.<sup>6</sup> Today this approach is unrealistic in achieving system security. Cryptography can assist with controlling who may add, delete, or change voter

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missing after she compared the computer records to the sign-in sheet. Elections officials won't know exactly how many votes were lost until after polls close.”  
<sup>5</sup> *Soubirous v. County of Riverside*,  
<http://www.verifiedvoting.org/downloads/legal/california/soubirous-v-countyofriverside/>

<sup>6</sup> Bruce Schneier, page 3, “*Applied Cryptography: Second Edition*,” publisher John Wiley & Sons, Inc.

registration records, and who may provide final approval for large scale changes as defined by election officials. Maintaining records of those who make or approve changes to voter registration records will assist with oversight of the voter registration system.

If properly applied computers and related technology can provide many benefits that address the challenge of auditing elections. However, the development and implementation of such systems should flow from potential risks, which include: infrastructural factors, hardware malfunctions, software misbehavior, communication media failures, and human limitation in system use.<sup>7</sup> The areas presenting the greatest challenges relate to confidentiality, integrity, and availability, computer misuses, and security accidents.<sup>8</sup>

Elections in the past have had difficulty with accounting for paper ballots--they have been lost, damaged, destroyed, manipulated, and forged. As we look at the introduction of paper ballot requirements in auditing of elections we should engage these issues as well. We should take the best practices learned by the financial services industry and apply them where appropriate to the ballot accounting process. Money is paper with great value--just as ballots hold great value during a public election.

EPIC asks the Committee to consider that even with paper audit records the need to assure that the automated vote counting process should also face rigorous audit review. For this reason, election audits procedure should support publication of election statistics 24 hours after the close of the election, full access to software, firmware, and hardware of voting systems, and publication of audit results..

Recently 2 Ohio Cuyahoga County election employees were sentenced to jail for misconduct related to a recount in the 2004 election. If we established federal recount rules for federal elections it will go without saying that there will be penalties. The system of election auditing should consider if a modular approach will be effective in establishing levels of responsibility and due diligence that must be met to achieve reliable procedures. Election administration involves government professionals, contractors, manufactures, suppliers, millions of volunteer poll workers, as well as observers. Managing auditing in this environment will require sufficient resources to support routines that can instill best practices at every stage of the process.

## Conclusion

Routinized procedures that allow independent review of accounting information is the method that has developed over centuries. Financial auditing is not limited to counting cash, checks, and vouchers, but the method of accounting for resources held by an institution. The use of the word audit and elections is new and the field is not defined. The nearest approximation of an election audits are recounts and canvasses. Recounts are irregular and dependent on contested close elections. Election canvasses are focused on

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<sup>7</sup> Peter g. Neumann, pg 6-7, "Computer Related Risks," publisher Addison-Wesley, 1995

<sup>8</sup> *id.*

reconciliation of the tally results, but are not audits. We should take care that the work of the Election Assistance Commission to establish guidance on the conduct of elections should not lead to further confusion in the ability of the public, candidates, policy makers or the media to determine what is and is not appropriate in the conduct of public elections. Every phase of the process from the drafting of voting technology standards to the establishment of testing and certification policy should strive for the highest level of transparency and fairness.

To be both efficient and effective election audits must become routine. The more often they are conducted the greater the opportunity to perfect the process and ensure integrity in election outcomes. Because this is a new area of auditing it is in need of definitions and administrative procedures to account for the tools of elections and their products in such a way as to ensure the secrecy of ballots and voter privacy.

Thank you  
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