

Testimony

Government Administration and Elections Committee
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Improve S.B. 364

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Chairs and members of the Committee, my name is Luther Weeks. I am Executive Director of CTVotersCount and Executive Director of the Connecticut Citizens Election Audit Coalition. I have personally observed twenty-five (25) post-election audits. Today, I am speaking for CTVotersCount. (I am also a certified moderator and a retired computer scientist)

I am opposed to the current Senate Bill 364 which would gut the current post-election audit law by eliminating the manual count and substituting an almost useless recount by the same type of machines and duplicate memory cards.

Instead, CTVotersCount recommends our alternative bill which would clarify the ballot chain of custody, make the audit procedures enforceable, while improving the efficiency and integrity of the audit – without increasing costs.

The current bill is based on three assumptions, all of which are erroneous because:

1. **A count by an identical scanner and memory card is NOT equivalent to a manual count.** In the words of a League of Women Voters Report:
An audit count that simply repeated the original counting procedure, whether electronically or by hand, would add little value to the election-validation process.
2. **The audits DO NOT cost too much.** Based on municipality requests for reimbursement to the State and citizen observations, the costs of the 2008 audit are estimated at \$82,000 and the cost of the 2009 audit at less than \$41,000. (Under our proposal the 2008 audit would have likely have cost 20% to 30% less than it did.)
3. **People in Connecticut CAN count votes accurately.** Officials in other states have regularly counted paper ballots quite accurately with less than 1/8th difference rate as Connecticut officials, at a lower cost. The keys are better methods, documentation, training, and organization.

My written testimony includes details supporting estimates for the costs of the audits, the ability of people to count votes accurately, and the advantages of our proposed alternative bill.

I have also delivered testimony to the committee from several computer scientists from Connecticut and around the country attesting to the fallacy of auditing by identical computers and the costs of manual counting in other states.

In summary: Saving money is an important goal, yet the value delivered for expenditures and the value lost in the name of savings should be recognized and considered. Should we stop inspecting highways, bridges, school buses, and election systems because it costs money? Or should we continue because they protect the value of our investments in infrastructure, save lives, and protect Democracy?

Thank you.

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Advantages Of The Proposed Substitute Text For S.B. 364

The CT Voters Count alternative bill would:

- **Clarify the ballot chain of custody**
- **Make the audit procedures enforceable**
- **Improve the efficiency and integrity of the audit**
- **WITHOUT INCREASING COSTS**

(Section 1):

- The proposed bill would clarify the chain of custody for optical scanner elections by updating Section 9-310 and 9-311:
 - To apply to optical scanners and ballot containers rather than “ballot boxes”
 - Articulate the differing procedures applicable to ballots and optical scanners after an election
 - Consolidate the custody requirements for ballots in optical scanner elections in one place in the law
 - Conform optical scan ballot chain of custody provisions to those for paper ballot only elections

(Section 2)

- The proposed bill would count exactly the same number of districts in each election as the current law, yet increase integrity and confidence through eliminating gaps in the law by:
 - Subjecting questions to selection for audit
 - Exempting uncontested races from audit selection
 - Subjecting central count absentee ballot optical scanners to selection for audit
 - Subjecting districts with recanvasses to selection for audit (while reducing the number of contests audited in such districts)
 - Subjecting a variety of contests to selection for audit in each election. (Under current law, in even year elections only three races are selected statewide for audit. The proposal would select contests randomly in each district for all elections as is now the case for municipal elections and primaries.)
 - Mandating that all investigations involving opening and counting of ballots be noticed and open to the public
 - Mandating that municipalities give four days notice of audit counting sessions to the Secretary of the State and that the Secretary post such notices three days in advance of the counting sessions. (The current law requires that they be noticed and public, but gives no minimum requirements. Posting under the current law could be accomplished by posting a notice on the door of the registrars office, any time before the start of the counting session)
 - Mandates that contest drawings be public and held at the start of local counting sessions. (They currently are not required to be public, and can be held at any time)
 - Requires that any recount of ballots based on discrepancies recognized in the audit be by a manual count. (The current audit law calls for a recanvass, which is now accomplished via rescanning)

- The proposed bill may modestly lower the counting costs and increase fairness over the current law and current proposed bill by:
 - Discontinuing the current requirement that other municipalities make up for the districts that had recanvasses. (In the Nov 2009 election approximately 20% of districts had a recanvass, so that the rest of the districts were actually subject to approximately 13% audit to make up for the recanvass exemption)
 - Reducing the audit by one contest in districts selected for audit that had a recanvass,
 - Requiring that only one district be audited in each central count absentee ballot optical scanner, (Saving effort, since that district is likely to have significantly fewer votes than the average district in the state.)
 - Counting questions is easier than counting races with more than one candidate. (Questions never involve voting for multiple candidates, or cross-endorsements.)
 - Reducing the motivation for the current or future Secretaries of the State to increase the audit in even year elections (In Nov 2008 Secretary Bysiewicz increased the audit by 40%, counting all races. Presumably to increase public confidence beyond auditing only three races, while potentially bypassing the closest, highest, or most controversial races)

- The proposed bill would assure the timely completion of audit analysis reports and their continued production by:
 - Setting a 60 day deadline for the production of at least preliminary reports. (The current law requires reports after each election and primary, yet sets no time limit. The November 2008 report was produced on May 13, 2009. The November 2009 report and the August 2008 report have yet to be published)
 - Allows the Secretary of the State to outsource the production of the report to any public or private university in the State of Connecticut. (The current report is sole sourced to UConn with no alternative available if UConn chooses not to continue the contract)
 - Places responsibility that the report be completed in a timely basis on the Secretary of the State
 - Setting deadline of twenty-four hours after the completion of a count for municipalities to report results to the Secretary of the State

- The proposed bill would make the audit procedures enforceable by the State Elections Enforcement Commission.
 - Using a mechanism proposed by former SEEC Director Jeffery Garfield in testimony to the GAE in 2009.

(Section 3)

- The proposed bill would require notification to the Secretary of the State when a recanvass is scheduled. (So that the Secretary of the State can determine which districts should audit less than three contests)

The Fallacy of Counting By Identical Scanner

A count by an identical scanner and memory card is NOT equivalent to a manual count

In the words of the Report on Election Auditing by the Election Audits Task Force of the League of Women Voters of the United States:

An audit count that simply repeated the original counting procedure, whether electronically or by hand, would add little value to the election-validation process.

http://www.lwv.org/Content/ContentGroups/Membership/ProjectsTaskforces/Report_ElectionAudits.pdf

From the testimony of Barbara Simons, Ph.D., member of the Board of Advisors of the U.S. Election Assistance Commission:

Senate Bill 364 appears to be based on the flawed premise that simply rerunning paper ballots through vote counting scanners used for the initial count can replace the manual audits currently required by law. Unfortunately, this assumption is wrong. Because the proposed rescan is not an audit, it will not achieve the goals for which the manual audit was intended.

Once a computer has been programmed, it will essentially produce the same result every time it is given the identical input, even when using a different computer of the same model, with an identical or similar memory card. This means that if a voting system contains incorrect or election-rigging software, rerunning the same ballots through an identical compromised counting system will result in the same incorrect tally.

From testimony signed by six computer scientists and a professor of election law:

There is a sound technical basis for verifying electronic vote tallies by manually counting a sample of precincts or vote subtotals. As computer scientists and election experts, we know very well that there is no reliable way to ensure that a security-critical computer system, such as a vote scanner, is free of malicious software that can change votes -- or is even bug-free, for that matter.

It has been shown time and time again that there is a clever way to defeat every defense that has been invented. Furthermore, basic errors and gross security holes have been exposed in every existing voting device examined by computer security professionals to date. Errors are routinely detected in elections -- and many smaller errors are probably missed. In 2008, hand-counted tabulation audits have discovered errors that led to incorrect vote totals...

Under Senate Bill 364, election officials would use the same vendor's scanners, with the same ballot definitions, as are used to tally votes on election night. Re-tabulation of ballots by another computer device is subject to the same errors and, especially, potential corruption of software as the devices that performed the initial count. If the devices used to re-tabulate come from the same manufacturer; contain all or some of the same hardware, software, or ballot definition files; or have been maintained by the same personnel at the same sites prior to the election, then that re-tabulation is of no value in verifying the election. Senate Bill 364 would offer no meaningful reassurance that computer vote tallies are correct.

People in Connecticut Can Count Votes Accurately

People in Connecticut CAN count votes accurately, since people in other states are able to count accurately, with similar effort.

In Minnesota, for the November 2008 post-election audit the following results were recorded:

299,442 votes counted in audit
 133 Differences in counts, unexplained
 0.44 Vote differences/1000 unexplained

In Minnesota, audits must be expanded to additional districts when counts are off by more than 2 votes in a single district of less than 400 vote and otherwise when they are off by more than .05%. In four post-election audits no single district has exceed this threshold.

In Connecticut, for the November 2009 post-election audit the following results were recorded:

303,651 votes counted in audit
 1211 Differences in counts, excepting questionable markings
 3.76 Vote differences/1000, excepting questionable markings

If Connecticut had escalation standards similar to Minnesota's, many districts would have caused escalation of the audit in each of our post-election audits. For example, the following table shows just the list of candidate counts with differences of more than 10 votes from the November 2009 post-election audit:

Col C Machine Totals (tape)	Col D Undisputed Vote Totals	Col E Questionable Vote Totals	Col F Overall Hand Count Totals (D+E)	Difference	Percent Difference
2042	2103	0	2103	-61	3.0%
612	541	11	552	60	-9.8%
1045	1088	0	1088	-43	4.1%
556	518	11	529	27	-4.9%
932	910	0	910	22	-2.4%
1488	1466	0	1466	22	-1.5%
1453	1435	0	1435	18	-1.2%
1279	1263	0	1263	16	-1.3%
1140	1124	0	1124	16	-1.4%
992	976	0	976	16	-1.6%
1323	1309	0	1309	14	-1.1%
1198	1184	0	1184	14	-1.2%
1420	1407	0	1407	13	-0.9%
588	567	8	575	13	-2.2%
267	253	2	255	12	-4.5%
1067	1055	0	1055	12	-1.1%
2083	2072	0	2072	11	-0.5%
496	480	5	485	11	-2.2%
775	760	4	764	11	-1.4%
465	439	16	455	10	-2.2%
387	373	4	377	10	-2.6%
973	963	0	963	10	-1.0%
552	532	10	542	10	-1.8%

The Cost of Post-Election Audits

The current post-election audit costs are a small price to pay for election integrity and confidence

Estimated Cost of the Nov 2008 Audit, \$89,003

We estimate the cost of the November 2008 post election audit as approximately:

\$89,003 or \$0.107 per count¹

This is based on the actual reimbursement requests from municipalities to the state for the 2008 audits, plus projecting those costs for the municipalities not requesting reimbursement:

Municipalities Reimbursed By State, Nov 2008 Audit:						
	Municipality	Ballots	Reimbursement	Race Counts	Total Counts	Cost/Count
	Barkhamsted	714	\$690.92	3337	4051	\$0.171
	Berlin	1794	\$800.00	7917	9711	\$0.082
	Bloomfield	1419	\$1,080.00	6609	8028	\$0.135
	Branford	4729	\$5,200.00	20934	25663	\$0.203
	Cheshire	1680	\$1,524.69	7345	9025	\$0.169
	Darien	1603	\$1,757.50	7220	8823	\$0.199
	East Haven	4692	\$6,400.00	18408	23100	\$0.277
	Fairfield	2755	\$997.50	13115	15870	\$0.063
	Farmington	1589	\$380.00	6861	8450	\$0.045
	Franklin	992	\$820.00	4156	5148	\$0.159
	Greenwich	3079	\$1,603.08	14044	17123	\$0.094
	Hamden	3969	\$2,130.00	17297	21266	\$0.100
	Hartford	2107	\$2,040.00	8537	10644	\$0.192
	Harwinton	1376	\$510.00	5350	6726	\$0.076
	Killingly	992	\$840.00	4386	5378	\$0.156
	Litchfield	3665	\$852.50	18649	22314	\$0.038
	Lyme	1384	\$636.25	6594	7978	\$0.080
	Manchester	4897	\$2,120.00	21913	26810	\$0.079
	Mansfield	2100	\$422.10	9375	11475	\$0.037
	Marlborough	3633	\$743.65	12427	16060	\$0.046
	Meriden	841	\$549.00	3605	4446	\$0.123
	Milford	4731	\$1,720.00	22200	26931	\$0.064
	Naugatuck	1506	\$760.00	6402	7908	\$0.096
	New Britain	2394	\$1,094.00	10914	13308	\$0.082
	New Canaan	1073	\$750.00	4657	5730	\$0.131
	New Haven	7559	\$1,650.00	32693	40252	\$0.041
	North Branford	3641	\$1,184.04	15815	19456	\$0.061
	North Stonington	2953	\$280.00	13605	16558	\$0.017
	Norwalk	1247	\$1,800.00	5721	6968	\$0.258
	Norwich	1167	\$300.00	3745	4912	\$0.061
	Orange	3956	\$1,310.00	18817	22773	\$0.058
	Plymouth	2436	\$948.34	8556	10992	\$0.086
	Preston	2556	\$541.50	14799	17355	\$0.031

¹ Counts are the total number of votes and ballots counted.

Shelton	7434	\$5,000.00	33870	41304	\$0.121
Stamford	7836	\$2,400.00	28637	36473	\$0.066
Suffield	3006	\$1,053.84	9676	12682	\$0.083
Trumbull	2832	\$2,500.00	13481	16313	\$0.153
Voluntown	1308	\$500.79	6039	7347	\$0.068
Waterbury	3028	\$5,695.00	15873	18901	\$0.301
West Hartford	2139	\$630.00	9384	11523	\$0.055
West Haven	5109	\$3,950.00	21439	26548	\$0.149
Westport	2837	\$1,730.00	11022	13859	\$0.125
Wethersfield	1417	\$1,350.00	6609	8026	\$0.168
Windham	1568	\$400.00	7155	8723	\$0.046
Windsor	2098	\$2,400.00	9662	11760	\$0.204
		-----		-----	
Totals		\$72,044.70		674691	
Average cost/count					\$0.107

Municipalities Not Reimbursed by State, Nov 2008 Audit:					
	Municipality	Ballots		Race Counts	Total Counts
	Ansonia	1285		5601	6886
	Bozrah	701		2379	3080
	Bridgeport	3608		20934	24542
	Danbury	4480		21162	25642
	East Hartford	3009		11598	14607
	Middletown	2383		22013	24396
	Plainville	2235		9308	11543
	Redding	3231		14539	17770
	Rocky Hill	2079		9038	11117
	Stratford	2558		16674	19232

Total					158815
					=====
Grand Total					833506

Average Cost Municipalities Reimbursed:	\$0.107
Estimated Total Cost at	\$0.107 per
	\$89,003

The estimate of \$0.107 per count is also consistent with the testimony presented today from six computer scientists and a professor of law. Their testimony supports the contention that accurate manual counting for post-election audits need not be expensive. From their testimony:

The cost of audits is minimal: election officials in Minnesota recently reported a cost of 9 cents per audited vote in the 2008 post-election audit, a figure consistent with reports from other States.

Estimated Cost of the Nov 2009 Audit, \$40,920

We estimate the cost of the November 2009 post election audit as approximately:

\$40,820 or less

Since there was no state reimbursement for the 2009 audits, we estimated the approximate cost in two ways:

- By multiplying counts in 2009 by the cost per count of \$0.107 in 2008, the result is: \$40,920.
- By estimating the cost from observer reports of staffing in several towns, multiplying by generous estimates of hourly rates, and projecting to include all municipalities, the resulting estimate is: \$35,799.

Nov 2009 Audit Cost Estimate, Based On 2008 Cost/Count							
Municipality	Ballots	Race Counts	Total Counts	Municipality	Ballots	Race Counts	Total Counts
Bridgeport	1447	11396	12843	Southbury	763	3132	3895
Colchester	2385	8336	10721	Stafford	1193	6324	7517
Colebrook	179	316	495	Stamford	2662	8882	11544
Danbury	1877	4852	6729	Stratford	2948	10886	13834
Darien	1834	5020	6854	Tolland	892	5871	6763
Griswold	1358	3816	5174	Torrington	225	1029	1254
Lyme	312	790	1102	Trumbull	1587	4154	5741
Manchester	1036	11441	12477	Vernon	2162	10293	12455
Meriden	449	3559	4008	Wallingford	3236	47302	50538
Middletown	2513	5627	8140	Washington	1310	1895	3205
Monroe	1315	5332	6647	Waterbury	1482	7405	8887
New Fairfield	3205	15139	18344	Watertown	1046	10001	11047
New Haven	644	1664	2308	West Hartford	1884	16309	18193
New London	1067	12002	13069	West Haven	1877	3355	5232
Newington	1008	4515	5523	Westport	762	3671	4433
Norfolk	594	2023	2617	Wilton	1475	3746	5221
Norwich	677	7929	8606	Windham	473	3570	4043
Plainfield	188	417	605	Windsor	919	10015	10934
Portland	2471	13316	15787				=====
Preston	1164	7047	8211			Total Counts	382273
Prospect	1218	4953	6171			2008 Cost/Count	\$0.107
Redding	2046	9133	11179			Est Cost at 2008 Rate	\$40,820
Shelton	3357	22378	25735				
Sherman	1254	2938	4192				

Nov 2009, Estimates Based On Observations:

Municipality	Supervisor Hrs	Counter Hrs	Cost Est	Race + Ballot Counts	Cost per Count
Bridgeport	24	64	\$1,360	12843	\$0.106
Colchester	9.75	19.5	\$488	10721	\$0.045
Darien	8	48	\$720	6854	\$0.105
Griswold	12	96	\$1,320	5174	\$0.255
Lyme	5.5	5.5	\$220	1102	\$0.200
Manchester	7	21	\$420	12477	\$0.034
Meriden	7.4	29.6	\$518	4008	\$0.129
Middletown	8.25	27.5	\$523	8140	\$0.064
Monroe	18.8	50	\$1,063	6647	\$0.160
New Haven	8.5	8.5	\$340	2308	\$0.147
New London	17	51	\$1,020	13069	\$0.078
Newington	5.5	16.5	\$330	5523	\$0.060
Norfolk	4.5	22.5	\$360	2617	\$0.138
Norwich	9.5	57	\$855	8606	\$0.099
Plainfield	2	4	\$100	605	\$0.165
Portland	10	20	\$500	15787	\$0.032
Preston	4	12	\$240	8211	\$0.029
Prospect	56	32	\$2,000	6171	\$0.324
Redding	6	48	\$660	11179	\$0.059
Shelton	45	90	\$2,250	25735	\$0.087
Sherman	10	20	\$500	4192	\$0.119
Southbury	29	72.5	\$1,595	3895	\$0.409
Stafford	22	31	\$970	7517	\$0.129
Stratford	16	23	\$710	13834	\$0.051
Torrington	3	3	\$120	1254	\$0.096
Trumbull	6	24	\$420	5741	\$0.073
Vernon	11.4	57	\$912	12455	\$0.073
Wallingford	42.5	145	\$2,720	50538	\$0.054
Waterbury	22	55	\$1,210	8887	\$0.136
Westport	16.5	66	\$1,155	4433	\$0.261
Wilton	15.8	37.8	\$851	5221	\$0.163
Windham	11.5	34.5	\$690	4043	\$0.171
			=====	=====	
Totals of Est Costs			\$27,138	289787	
		Average Cost/Count			\$0.094²

Est Rate Per Supv Hr	Est Rate Per Ctr Hr
\$30.00	\$10.00

Total Counts All Municipalities				382273
Observation Est Cost/Count				\$0.094
Estimated Total Cost				\$35,799

² Differs from Observation Report based on a corrected vote count.

Proposed Substitute Text For S.B. 364

AN ACT TO STRENGTHEN POST-ELECTION AUDIT INTEGRITY AND EFFICIENCY

Purpose: Increase integrity and public confidence in elections, by improving post-election audits, and necessary related provisions of the law, providing higher levels of confidence with more efficient use of current audit resources. This act will: Make post-election audit and other procedures enforceable; reduce ambiguity in the chain-of-custody for ballots; eliminate ballot and contest exemptions in the current law; provide for transparency in all aspects of the post-election audit process; and increase the effectiveness and efficiency of audits by increasing the variety of contests audited, subjecting all contests to potential selection, subjecting all voting machines to potential selection, and eliminating counting of non-contested races.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Section 9-310 of the general statutes is repealed and the following is substituted in lieu thereof (*effective July 1, 2010*)

³Sec. 9-310a. Sealing of tabulator by moderator. As soon as the count is completed and the moderator's return required under the provisions of section 9-259 has been executed, the moderator shall **seal ballots⁴ and one copy of tabulator zero and results tapes in approved containers and preserve them in accordance with section 9-310b⁵**, place the sealed tabulator in the tabulator bag, and so seal the bag, and the tabulator shall remain so sealed against voting or being tampered with for a period of fourteen days, except as provided in section 9-311 or pursuant to an order issued by the State Elections Enforcement Commission **or the Secretary of the State**. If it is determined that a recanvass is required pursuant to section 9-311 or 9-311a, immediately upon such determination the tabulators, **tabulator counted ballots, hand counted ballots**, write-in ballots, absentee ballots, moderators' returns and all other notes, worksheets or written materials used at the election shall be impounded at the

³ Section 9-311 seems to have been written contemplating the tabulator would contain ballots and would be sealed in a bag for 14 days after the election, however, sometimes 9-311 seems to have been interpreted as meaning that ballots only need to be sealed by law for 14 days.

⁴ This section is updated to reflect that there is really not a ballot box but a separate sealed container for ballots after they are removed from the large box upon which the tabulator is installed for election day.

⁵ Currently, Section 9-302 applies to the ballot preservation in elections when paper balloting without tabulators are not used Section 9-150 applies for absentee ballots but it is unclear how the preservation of paper ballots cast in optical scanners is handled. While other sections require that ballots are to be separated from the tabulator and preserved and sealed for 180 days or 22 months under federal law, the law and this section should make that clearer either explicitly as we have done in 9-311b or referencing those other sections of existing law and improving them.

direction of the Secretary of the State. Such package shall be preserved for one hundred eighty days or any longer period required for Federal elections after such election and may be opened and its contents examined in accordance with section 9-311, 9-310a, or upon an order of a court of competent jurisdiction. At the end of one hundred eighty days or any longer period required for Federal elections, unless otherwise ordered by the court, such package and its contents may be destroyed. Any person who unlocks the voting or operating mechanism of the tabulator or the ~~[counting compartment]~~ ballot containers after it has been locked as above directed or breaks or destroys or tampers with the seal or ballot container after it has been affixed as above directed or changes the indication of the counters on any voting tabulator within fourteen days after the election or within any longer period during which the tabulator is kept locked as ordered by a court of competent jurisdiction, by the Secretary of the State, or by the State Elections Enforcement Commission in any special case, except as provided in section 9-311, or without authority provided in section 9-311, 9-130a, or 9-310b fails to seal or unseals ballot containers within one-hundred-and eighty days after the election or any longer period required for Federal elections, shall be imprisoned for not more than five years. Any tabulator may be released in less than fourteen days, for use in another election, by order of a court, if there is no disagreement as to the returns from such machine and no order directing impoundment has been issued by the State Elections Enforcement Commission or the Secretary of the State.

⁶⁷Sec. 9-310b. Return of ballots [to box]; sealing and preservation. All the ballots cast at any election shall, immediately after they are counted, be returned by the moderator to the ballot containers approved by the Secretary of the State, [box or boxes], which shall, in the presence of two or more of the official counters and before the containers box or boxes, have been removed from the [enclosure] polling place where the ballots have been counted, be

⁶ Although this is a new section, it is basically a copy of 9-302, revised to handle optical scan voted ballots. For clarity we have underlined all text to be part of the law and emboldened parts added that are not in 9-302 and struck sections to be removed that were in 9-302.

⁷ There seems to be ambiguity in the law for the handling of ballots between Sec. 9-302, 9-150, and Sec. 9-310 where absentee ballots and polling place cast ballots are subject to different storage requirements. 9-150 does not seem to contemplate optical scanner counted absentee ballots. The current 9-310 indicates storage of polling place ballots with machines by registrars for 14 days. The others indicates storage of absentee ballots by the town clerk for 180 days. The proposed changes require storage for 180 days (or longer for Federal elections) by the registrars. (The law could be changed to make storage of all ballots the responsibility of the municipal clerk. That would actually provide stronger confidence and integrity due to separation of duties, however, since currently in the majority of towns ballots are retained by the registrars, that would be a more significant change).

securely sealed and locked by the moderator with a numbered tamper-evident seal approved the Secretary of the State, and the ballot [box sealing stamp] seal shall be [signed by the registrars or deputy registrars of different parties and recorded by the moderator, and the moderator shall apply said [stamp] seal securely to each [box] container so as to effectually seal the opening through which the ballots are deposited [and also the keyhole of each of such ballot boxes] and so that such [boxes] containers cannot be opened without breaking the [ballot box stamp] seal. The moderator shall thereupon deposit the [box] containers in the [municipal clerk's] Registrars' office, to be opened and examined only by those officially authorized so to do, and [such clerk] the registrars shall carefully preserve such [box] containers with seal unbroken for one hundred eighty days after such election, any longer period required for Federal elections, or until the termination of any judicial proceeding requiring the preservation of the ballots in such boxes, when he shall forthwith open such boxes and destroy such ballots without inspection. If such boxes are opened under authority of a registrar of voters or the Secretary of the State for purposes of an audit or recanvass, authority of a judge of the Superior Court charged with inquiring into an election, such judge shall see that all the ballots and the accompanying certificates are returned to the boxes and that the same are effectually sealed again. ⁸Such unsealing of ballots, review of ballots, and resealing shall be open the public and publicly notified for post-election audits, recanvasses, recounts, and other purposes until the ballots are not longer subject to the potential for post-election audits, recanvasses, or recount.

Section 2. Section 9-320f of the general statutes is repealed and the following is substituted in lieu thereof (*effective July 1, 2010*)

Manual audit of votes by registrars of voters or town clerk. Offices subject to audit.

~~University of Connecticut~~ **Post-election audit** analysis. Discrepancy recanvass. Voting machine failure to record votes. Secretary of the State investigation and report. Regulations. Definitions.

⁸ Some registrars have interpreted that the post-election audit, which must be public, does not actually include the unsealing and resealing of the ballots. This change makes it clear that opening ballots at any time during the period in which they may be subject to audit, recanvass, or recount must be noticed and public.

(a) Not earlier than the fifteenth day after any election or primary and not later than two business days before the canvass of votes by the Secretary of the State, Treasurer and Comptroller, for any federal or state election or primary, or by the town clerk for any municipal election or primary, the registrars of voters shall conduct a manual audit of the votes recorded in [~~not less than ten per cent of the~~] voting districts **and optical scan central count⁹ voting locations in** the state, district or municipality, whichever is applicable. **The number of districts and optical scan central count voting locations selected for the manual audit will be equal to ten percent of the voting districts in the election or primary.**¹⁰ Such manual audit, **random selections, and any associated investigations involving ballots**, shall be noticed advance **by registrars of voters to the Secretary of the State at least four business days in advance, noticed on the Secretary of the State's web site three business days in advance**, and be open to public observation. **The unsealing and resealing of ballots shall occur as part of the scheduled, publicly noticed local manual counting session of the post-election audit.** Any election official who participates in the administration and conduct of an audit pursuant to this section shall be compensated by the municipality at the standard rate of pay established by such municipality for elections or primaries, as the case may be.

(b) The voting districts subject to the audit described in subsection (a) of this section shall be selected in a random drawing by the Secretary of the State and such selection process shall be open to the public. The [~~offices~~]¹¹ **contests** subject to the audit pursuant to this section shall be, (1) in the case of an election where the office of presidential elector is on the ballot, all offices required to be audited by federal law, plus one additional [~~office~~] **contest** selected in a random drawing [~~by the Secretary of the State~~], but in no case less than three offices, (2) in the case of an election where the office of Governor is on the ballot, all offices required to be audited by federal law, plus one additional [~~office~~] **contest** selected in a random drawing

⁹ The programming of central count optical scanners varies slightly from that of district count machines and is more complex since it contains code for several districts, making these machines subject to different and likely highly possibilities for human program or machine software error. They should be subject to the audit.

¹⁰ The optical scanners would be selected from the voting districts and the central count locations. The number selected, however, would remain the same as the current law since the number selected would remain at 10% of the voting districts.

¹¹ This change expands the contests subject to audit to include questions, since like races they are subject to the potential of error or fraud. It also eliminates from eligibility for audit any races that are uncontested. This change should not reduce the purpose of checking machine accuracy, yet increase the confidence in election integrity. It does not increase costs, since the same number of contests are being audited. In fact it might slightly decreases costs since questions are somewhat simpler to count.

~~[by the Secretary of the State]~~, but in no case less than three offices, (3) in the case of a municipal election, three ~~[offices]~~ **contests** or twenty per cent of the number of ~~[offices]~~ **contested contests** on the ballot, whichever is greater, selected at random ~~[by the municipal clerk]~~, and (4) in the case of a primary election, all offices required to be audited by federal law, plus one additional office, if any, but in no event less than twenty per cent of the offices on the ballot, selected in a random drawing ~~[by the municipal clerk]~~. **All drawings for contest selection will be conducted by the municipal clerk, ¹²separately for each district, excluding from selection all offices with unopposed candidates, ¹³publicly as the first event of the local manual counting session of the post-election audit.**

(c) ~~[If a selected voting district has an office that is subject to recanvass or an election or primary contest pursuant to the general statutes, the Secretary shall select an alternative district, pursuant to the process described in subsection (b) of this section.]~~ **If a voting district with a contest subject to a recanvass¹⁴ is selected for audit, then one less contested will be selected to be manually counted in that district. (2) For optical scan central count locations, one district counted by the central count location will be selected for manual counting. If a voting district selected has a contest subject to an election or primary contest¹⁵ pursuant to the general statutes where ballots are impounded, then the audit counting session for that district will be held after ballots are no longer impounded for the voting district.**

¹² The change will have all selections by municipal clerk and different for each district – this will insure a variety of races will be audited across the state, enhancing integrity and public confidence without increasing the amount of counting. Currently in municipal elections and primaries the drawing is by the municipal clerk. Currently for statewide/Federal elections it is a single drawing by the Secretary of the State. Currently there is a significant potential to select races with large margins, and missing selection of races of significant interest to the public.

¹³ Currently the selection of contests for audit is not required to be public – a huge hole in transparency. Holding it at the beginning of the municipal counting session eliminates the need for two public events, two public notifications, and makes it much more convenient for the public to attend.

¹⁴ Recanvassing of a contest is not a manual count of ballots and should have little bearing on assessing the accuracy of optical scanners. By subjecting other contests within such a district to audit, integrity and public confidence will be increased. The current exemption of recanvassed districts unfairly increases the audit burden on municipalities without recanvassed districts.

¹⁵ Exempting districts subject an election contest presents a loophole where a contest in one race can preclude an audit in another race. Like the exemption for recanvassed districts is unfairly shifts the audit burden to other municipalities.

(d) The manual audit described in subsection (a) of this section shall consist of the manual tabulation of the paper ballots cast and counted by each voting machine subject to such audit. Once complete, the vote totals established pursuant to the manual tabulation shall be compared to the results reported by the voting machine on the day of the election or primary. The results of the manual tabulation shall be reported on a form prescribed by the Secretary of the State which shall include the total number of ballots counted, the total votes received by each candidate in question, the total votes received by each candidate in question on ballots that were properly completed by each voter and the total votes received by each candidate in question on ballots that were not properly completed by each voter. **Within twenty-four hours of the completion of the manual count, s[§]uch report shall be filed with the Secretary of the State[~~,-who shall immediately forward such report to The University of Connecticut for analysis. The University of Connecticut shall file a written report with the Secretary of the State regarding such analysis that describes any discrepancies identified. After receipt of such report, the Secretary of the State shall file such report with the State Elections Enforcement Commission].~~** **The Secretary of the State will be responsible for the completion of further analysis of such reports, necessary further investigations, and filing an analysis report¹⁶ with the State Elections Enforcement Commission no later than sixty days (60) after the end of the municipal post-election audit counting sessions. The Secretary of the State may contract all or a part of the analysis and investigations to any public or private university within the state of Connecticut.**

(e) For the purposes of this section, a ballot that has not been properly completed will be deemed to be a ballot on which (1) votes have been marked by the voter outside the vote targets, (2) votes have been marked by the voter using a manual marking device that cannot be read by the voting machine, or (3) in the judgment of the registrars of voters, the voter marked the ballot in such a manner that the voting machine may not have read the marks as votes cast.

¹⁶ If significant additional investigations are necessary, this report may well be an initial report indicating any open questions subject to further, timely investigation.

(f) Notwithstanding the provisions of section 9-311, the Secretary of the State shall order a discrepancy recanvass **by manual count of all ballots**¹⁷ of the returns of an election or primary for any ~~[office]~~ **contest** if a discrepancy, as defined in subsection (o) of this section, exists where the margin of victory in the race for such office is less than the amount of the discrepancy multiplied by the total number of voting districts where such ~~[race]~~ **contest** appeared on the ballot, provided in a year in which the Secretary of the State is a candidate for an office on the ballot and that office is subject to an audit as provided by this section, the State Elections Enforcement Commission shall order a discrepancy recanvass **by manual count of all ballots** if a discrepancy, as defined by subsection (o) of this section, has occurred that could affect the outcome of the election or primary for such office.

(g) If **the analysis** ~~[The University of Connecticut]~~ report described in subsection (d) of this section indicates that a voting machine failed to record votes accurately and in the manner provided by the general statutes, the Secretary of the State shall require that the voting machine be examined and recertified by the Secretary of the State, or the Secretary's designee. Nothing in this subsection shall be construed to prohibit the Secretary of the State from requiring that a voting machine be examined and recertified.

(h) The audit reports¹⁸ filed pursuant to subsection (d) of this section shall be open to public inspection and may be used as prima facie evidence of a discrepancy in any contest arising pursuant to chapter 149 or for any other cause of action arising from such election or primary.

(i) If the audit officials are unable to reconcile the manual count with the electronic vote tabulation and discrepancies, the Secretary of the State shall conduct such further investigation of the voting machine or tabulator malfunction as may be necessary for the purpose of reviewing whether or not to decertify the voting machine or machines in question

¹⁷ The current recanvass law and procedures perform recounting by machine. If there are concerns with the machine counting based on the audit, then the ballots should be recounted by hand.

¹⁸ To emphasize that not just the overall audit report but the local counting session reports should be public and serve as prima facie evidence.

or to order the voting machine to be examined and recertified pursuant to subsection (g) of this section. Any report produced by the Secretary of the State as a result of such investigation shall be filed with the State Elections Enforcement Commission and the commission may initiate such further investigation in accordance with subdivision (1) of subsection (a) of section 9-7b as may be required to determine if any violations of the general statutes concerning election law have been committed.

(j) The individual paper ballots used at an election or primary shall be carefully preserved and returned in their designated receptacle in accordance with the requirements of section 9-266, 9-302 or 9-310, whichever is applicable.

(k) Nothing in this section shall be construed to preclude any candidate or elector from seeking additional remedies pursuant to chapter 149.

(l) After an election or primary, any voting machine **or ballots** may be kept locked for a period longer than that prescribed by sections 9-266, 9-310 and 9-447, if such an extended period is ordered by either a court of competent jurisdiction, the Secretary of the State or the State Elections Enforcement Commission. Either the court or the Secretary of the State may order an audit of such voting machine to be conducted by such persons as the court or the Secretary of the State may designate, provided the State Elections Enforcement Commission may order such an audit under the circumstances prescribed in subsection (f) of this section. If the machine utilized in such election or primary is an optical scan voting system, such order to lock such machine shall include the tabulator, memory card and all other components and processes utilized in the programming of such machine.

(m) The Secretary of the State may adopt regulations **and procedures**, in accordance with the provisions of chapter 54, as may be necessary for the conduct of the manual tabulation of the paper ballots described in subsection (a) of this section and to establish guidelines for expanded audits when there are differences between the manual and machine counts. **The**

regulations and procedures for conducting audits shall be prescribed by the Secretary of the State and each municipal official shall comply with the process outlined by the Secretary of the State for conducting audits¹⁹.

(n) Notwithstanding any provision of the general statutes, the Secretary of the State shall have access to the code in any voting machine whenever any problem is discovered as a result of the audit described in subsection (a) of this section.

(o) As used in this section, "discrepancy" means any difference in vote totals between machine and manual counts in a voting district that exceeds one-half of one per cent of the lesser amount of the vote totals between machine and manual counts where such differences cannot be resolved through an accounting of ballots that were not marked properly in accordance with subsection (e) of this section, "state election" means "state election", as defined in section 9-1, and "municipal election" means a municipal election held pursuant to section 9-164.

Section 3. Section 9-311a of the general statutes is repealed and the following is substituted in lieu thereof (*effective July 1, 2010*)

Sec. 9-311a. Recanvass on close vote. For purposes of this section, state, district and municipal offices shall be as defined in section 9-372 except that the office of presidential elector shall be deemed a state office. Forthwith after a regular or special election for municipal office, or forthwith upon tabulation of the vote for state and district offices by the Secretary of the State, when at any such election the plurality of an elected candidate for an office over the vote for a defeated candidate receiving the next highest number of votes was either (1) less than a vote equivalent to one-half of one per cent of the total number of votes cast for the office but not more than two thousand votes, or (2) less than twenty votes, there shall be a recanvass of the returns of the voting machine or voting machines and absentee ballots used in such election for such office unless such defeated candidate or defeated candidates, as the case may be, for such office file a written statement waiving this right to

¹⁹ Based on alternative text proposed by former SEEC Director Jeffery Garfield in testimony to the GAE in a public hearing on Feb 18, 2009.

such canvass with the municipal clerk in the case of a municipal office, or with the Secretary of the State in the case of a state or district office. In the case of state and district offices, the Secretary of the State upon tabulation of the votes for such offices shall notify the town clerks in the state or district, as the case may be, of the state and district offices which qualify for an automatic recanvass and shall also notify each candidate for any such office ²⁰ **and the Secretary of the State.** When a recanvass is to be held the municipal clerk shall promptly notify the moderator, as defined in section 9-311, who shall proceed forthwith to cause a recanvass of such returns of the office in question in the same manner as is provided in said section 9-311. In addition to the notice required under section 9-311, the moderator shall before such recanvass is made give notice in writing of the time when, and place where, such recanvass is to be made to each candidate for a municipal office which qualifies for an automatic recanvass under this section. Nothing in this section shall preclude the right to judicial proceedings on behalf of a candidate under any provision of chapter 149. For the purposes of this section, "the total number of votes cast for the office" means in the case of multiple openings for the same office, the total number of electors checked as having voted in the state, district, municipality or political subdivision, as the case may be. When a recanvass of the returns for an office for which there are multiple openings is required by the provisions of this section, the returns for all candidates for all openings for the office shall be recanvassed. No one other than a recanvass official shall take part in the recanvass. If any irregularity in the recanvass procedure is noted by a candidate, he shall be permitted to present evidence of such irregularity in any contest relating to the election.

²⁰ Under the current law the Secretary of the State is often unaware of some recanvasses and cannot exclude them from the random drawing of districts, which necessitates drawing of alternates. If recanvasses are included in the audits as proposed, this provision will assure that the Secretary of the State is able to distinguish those districts that are required to count one less contest.

Excerpts from the Nov 2009 Coalition Post-Election Audit Report

The full report and previous reports are available at: <http://www.CTElectionAudit.org>

From the Executive Summary:

In this report, we conclude, based on our observations and analysis of audit reports submitted to the Secretary of the State that the November post-election audits still do not inspire confidence because of the continued lack of

- standards for determining need for further investigation of discrepancies,
- detailed guidance for counting procedures, and
- consistency, reliability, and transparency in the conduct of the audit.

Compared with previous reports of November post-election audits:

- The bulk of our general observations and concerns remain.
- The accuracy of counting has improved. There was a significant reduction in the number of extreme discrepancies reported. However, there remains a need for much more improvement.
- There was a significant improvement in counting cross-endorsed candidate votes
- The number of incomplete reports from municipalities has significantly decreased.

Among our greatest concerns are the discrepancies between machine counts and hand-counts reported to the Secretary of the State by municipalities. In many cases, these discrepancies are not thoroughly and reasonably explained. We believe that the lack of organization, planning, and ad-hoc counting procedures used by many municipalities were not sufficient to count accurately and efficiently. We find no reason to attribute all errors to either humans or machines.

We note continuing failures to follow audit and chain-of-custody procedures. We emphasize that this report does not question any individual's integrity. However, a safe, credible system of security procedures should not permit a single individual to have any extended opportunity to handle records unobserved.

Procedures Unenforceable, Current Laws Insufficient

As we have noted in previous reports, discussions with representatives of the Secretary of the State's Office and the State Elections Enforcement Commission (SEEC) indicate that many, if not all, of the post-election audit procedures, including those covering chain-of-custody, are unenforceable. There is no incentive for following the procedures and no penalty for disregarding them.

We note that the adherence to prescribed chain-of-custody and ballot security procedures varies widely among audited districts. Laws that govern the sealing of ballots, memory cards, and tabulators after an election are unclear. Ballots are not uniformly maintained in secure facilities and access to these storage facilities is not reliably logged or recorded, even though two individuals are required to be present when these facilities are accessed. In many towns, each registrar could have individual, unsupervised access to the sealed ballots, and in many towns, several other individuals have such access. The lack of uniform security of the ballots

diminishes confidence in the integrity of the ballots which are the basis for the data reported in an audit.

We emphasize that this report does not question any individual's integrity. However, a safe, credible system of security procedures should not enable a single individual to have any extended opportunity to access records unobserved.

Procedures Are Not Being Followed, Understood

Our observations indicate that some towns do a good job of using the procedures in the audit, following each step in order, and enhancing them with effective detailed counting methods. However, in other towns, there is no evidence that election officials are referencing or following the procedures. Some who attempt to follow the steps do not seem to understand them and appear to be reading the procedures for the first time at the start of the session.

Problems uncovered in this observation include: public notice requirements, incorrectly completed forms, insufficient number of races and candidates audited, chain-of-custody problems, transparency, and actions contrary to procedures and the law.

Incorrectly Completed Forms and Incomplete Audit Counting

Reviewing the sixty (60) district reports submitted by the municipalities to the Secretary of the State, we note that fourteen (14) reporting forms were not accurately completed – indicating that the required counting was likely not completed. Without complete information, it is difficult to create comprehensive statistics or to depend on the audits as a vehicle for assessing the voting machines' accuracy and correct programming. Some of these reports show that it was not only the reporting that was incomplete, but that the audits themselves were flawed:

- One (1) town counted only two of the minimum of three races required.
- One (1) town counted only one of the minimum of three races required.
- One (1) town counted three races, but only one candidate in each race.
- One (1) town counted three races, but only one candidate in only one of the races
- One (1) town did not count nine ballots with write-in ballots according to their audit report.
- One (1) town did not provide overall ballot count totals counted as part of the audit, as required. We noted (5) arithmetic or transcription errors in totaling hand counts for individual races.
- Two (2) towns counted more races and contests than the minimum three and minimum 20%, indicating misunderstanding of the requirements and procedures.

Multiple Chain of Custody Concerns

In several observations²¹, observers expressed concerns with the chain of custody in the following ways:

- One (1) town did not seal their ballots at all.
- Two (2) observations noted that ballots were delivered to the audits in cardboard boxes with numbered tamper evident seals. In one case, the interview indicated that the ballots

²¹ Although we observed a total of forty-two (42) counting sessions, we did not observe every attribute of every audit: Some questions did not apply in some audits; observers could not fully observe audits that continued beyond one day etc.

were not sealed in a container after the election but instead held in the universally keyed ballot box .

- One (1) observation noted that ballots were delivered in unsealed bags. The interview indicated that they were held in a room with the door, sealed with a tamper evident seal, that had been unsealed and re-sealed three times since the election.
- One (1) unsealing of the ballots was conducted without access to the moderator's report, so that the seal number could not be verified as the same seal applied on Election Night.
- Two (2) observations noted that, while regular ballots were sealed, other ballots such as write-ins, hand counted, or absentee ballots were not held in sealed containers.
- One (1) observation report noted that, in an audit continued to the following day, the registrars had misplaced the record of seal numbers used to reseal the ballots on the first day.
- Overall, in eleven (11) municipalities, observers expressed overall concerns with the chain of custody.

Guidance, Training, and Attention to Counting Procedures Inadequate, Inconsistently Followed

Audit Organization and Counting Procedures:

Observers expressed concerns that many of the audits were not well organized. Out of 42 audits observed , the observers noted the following:

- In fourteen (14) audits, observers had concerns that the auditing was not well organized.
- In five (5) audits, observers had concerns with the integrity of the counting and totaling process.
- In eighteen (18) audits, observers had concerns that the manual count was inaccurate.
- In six (6) audits, observers had concerns that the results on the reporting forms were inaccurate.
- In thirteen (13) audits with counts that did not originally match, the votes or ballots were not recounted a second time.
- In thirteen (13) towns, the supervisor attributed discrepancies in ballot counts to “human error” on the official audit report forms.
- Several observations noted effective counting procedures in counting stacks of ballots and hash marking votes in stacks of ballots, but that the totaling process was disorganized, often confused, and caused potential inaccuracy.

Need for Dual Verification

Observers noted that audit counting procedures requiring “two eyes”, i.e., dual verification of counts, were frequently ignored. When a large number of ballots are counted by a single individual, miscounts can require tiring recounts and unnecessary investigation. When single individuals count hundreds of ballots or votes, errors are almost inevitable.

- When using the *hash mark* counting method, in seventeen (17) observations a second official did not verify that votes *were read* accurately by the first official, nor that hash marks *were recorded* accurately.
- When counting ballots, in eleven (11) observations a second official did not verify ballot counts.

Confusion in Definitions of Ballots with Questionable Votes

There continues to be confusion in the definitions of “ballots with questionable votes” (marks that the machine may have misread) and those ballots should be considered “undisputed”:

- On the official reporting form, some towns fail to classify any ballots as having any questionable votes. Other towns classify many ballots as questionable, when clearly the machine counted the vast majority of those votes.
- There is often confusion between differences in voters’ intent that would not be recognized by the scanner and marks that may or may not have been read by machine.
- Observers report a wide variety of interpretations, counting methods, and classification methods. In some towns counting ballots with questionable votes are left to individual teams; in others they are counted by the supervisors; often the frustration and uncertainty of questionable ballot counting leads to much confusion in the totaling of votes.

The following table has some examples of candidate counts with the largest percentages of questionable votes. Note that, in general, the optical scanners seem to have counted accurately many of the votes classified by officials as questionable.

The table shows one count per municipality. In several of these municipalities many candidate counts had similar questionable vote totals.

Col C Machine Totals (tape)	Col D Undisputed Vote Totals	Col E Questionable Vote Totals	Col F Overall Hand Count Totals (D+E)	Percent Questionable
68	58	9	67	13.2%
335	291	42	333	12.5%
975	857	118	975	12.1%
235	218	17	235	7.2%
629	589	42	631	6.7%
196	182	13	195	6.6%
647	605	41	646	6.3%
170	160	10	170	5.9%
1621	1557	70	1627	4.3%

Table. Examples of Candidate Counts with the Largest Percentage of Questionable Votes (one example per town)

Vote Count Accuracy

The following table shows the number of candidate counts with various levels of count differences between the optical scanners and the hand counts, considering ballots with questionable votes:

Count Difference	% Of All Counts	Number of Candidate Counts
0	56.6%	427
1-3	30.9%	233
4-6	7.6%	57
7-9	1.9%	14
>10	3.1%	23
Total	100.00%	754
	Average Difference:	1.6 votes

Table: Distribution by Difference of Candidate Counts between Hand-Counted Votes and Machine-Counted Votes.

Using the same data as the previous table, omitting small counts with small differences, the following table shows the number of candidate counts with various levels of percentages of differences between the optical scanners and the hand counts, considering ballots with questionable votes:

Range of % of Count Difference	% Of All Counts In Range	Number of Candidate Counts
0	55.3%	380
> 0 and < 0.5 %	19.5%	134
0.5 % and < 1.0 %	9.3%	64
1.0 % and < 2.0 %	11.4%	78
2.0 % and < 5.0 %	3.2%	22
5.0 % and < 10.0 %	1.2 %	8
10.0 % and greater	0.0 %	0
Total	100.0%	686
Average Difference %	0.37%	

Table: Distribution by Difference of Significant Candidate Counts between Hand-Counted Votes and Machine-Counted Votes By Ranges Of Percent Of Differences.

Some observer comments²²:

The audit was very well organized. Clearly the registrars gave a great deal of thought to how they would proceed...Officials used color coded tally sheets & post it notes to cut down on confusion & ensure accuracy. Additionally they provided each team with a tape adding machine which provided an audit trail when needed.

All the people involved in the audit process were very welcoming and friendly. They had no concerns when we asked questions to observe something. They were willing and cooperative. It was a pleasant experience.

One ballot bag was sealed intact and two were already opened; they had to break seals on those two bags to get them out of storage area

No [numbered] seals used. Ballots in cardboard box secured by "Security Tape" (Red, White, and Blue seal tape)

The seal was looped through the zipper pull and the plastic luggage tag that identified the contents of the bag but not through the second zipper pull making the seal unsecure.

It didn't appear that the supervisor was familiar with the SOTS audit procedures - counting all races [rather than three], not totaling the ballots, not separating out the questionable ballots at the beginning. She did not seem to take the process seriously, referring to hashing as chicken legs, joking about how she couldn't let the counters know how far off they were on the first count because we[observers] were there (though she later did tell them).

Counters were in one room, registrars in another, registrars spent perhaps 10 min total time in room with counters. One team spacey and seeming disorganized, two teams doing well.

One worker I felt was disinterested in that he would leave the room for 15 to 20 minutes in the middle of counting then return and play with his piles of ballots, draw on his recording pad and get up and leave again"

No effort was made to count the number of ballots with write in votes, despite the fact that this was reported as explaining the discrepancy between total ballot counts and the machine tape total... It was theorized that the optical scanner may have initially rejected and later accepted ballots with write-ins. It was further theorized that these ballots may have been counted. This theory was offered by the Secretary of the State's office according to the registrar, who left the room in order to call SOTS soon after the counting began.

Some comments from official audit reports:

9 ballots had a write-in vote. The machine counted them but the moderator put them in a separate envelope and they were not hand counted by the audit.

The total number of ballots counted by hand was 1298 vs. the public counter of 1315. This difference may be attributable to our separating the ballots into groups of 25. These groups were only counted once and could have varied in number from 25-27.

Counter fatigue [Explaining differences]

Human Error [Explaining differences, 13 reports]

²² All comments in this document have been edited for length spelling, grammar, and to make meanings clear.