





0	<b>Connecticut Citizen Election Audit Coalition</b>	
0	 League of Women Voters of Connecticut	0  Connecticut <b>COMMON CAUSE</b> <i>Holding Power Accountable</i>
0		0 

# Report and Feedback April 2012 Connecticut Post-Election Audit Observation

By

The Connecticut Citizen Election Audit Coalition

Aug 2, 2012

[www.CTElectionAudit.org](http://www.CTElectionAudit.org)

## Table of Contents

Executive Summary .....	3
I. Introduction .....	4
A. Citizen Observation: Challenges and Limitations .....	5
B. Background .....	5
II. Analysis .....	6
A. Procedures Are Not Being Followed, Understood.....	6
B. Six Official Audit Reports Not Available, To Date .....	6
C. Missing, Incorrectly Completed Forms and Incomplete Audit Counting.....	7
D. Late Start Highlights Weak Chain-of-Custody Requirements.....	7
E. A Questionable Audit in One Municipality.....	7
III. Audit Statistics .....	9
A. Ballot Count Accuracy .....	9
B. Vote Count Accuracy .....	10
C. “Questionable” Votes and “Undisputed” Ballots.....	10
Appendix A: On Site Supervisor Interviews .....	11
Appendix B: Statistics from Observation Reports.....	12

## Executive Summary

After the April 2012 Republican Presidential Primary, Connecticut conducted a post-election audit<sup>1</sup>. The Connecticut Citizen Election Audit Coalition volunteers conducted an observation of the audit.

The coalition includes the League of Women Voters of Connecticut, Connecticut Common Cause, Connecticut Citizen Action Group, and Connecticut Voters Count. The purpose of the observation was to demonstrate citizen interest in the process, increase citizen involvement in elections, provide feedback to the Secretary of the State and the Connecticut Legislature on the audit process, and provide the public with information necessary to determine their confidence in our elections.

**Based on the size and relative simplicity of this audit, we provide an abbreviated report. We summarize the statistical information and observations, while we make no new recommendations.**

**As we said in our Nov 2011 report, readers of past reports will note little change in our observations and conclusions; little progress by officials in improving post-election audit integrity; and little change in our recommendations which have been, for the most part, not addressed by current and past Legislatures and Secretary of the State's Offices.**

Compared to past audits there were significantly fewer ballot count and race count differences in this audit. The fewer number of ballots and the single race to be counted contributed to this improved result. We are skeptical that this audit is an indication of future improvement. Items of note include:

- Three towns selected for audit unsealed and combined their ballots from all districts, necessitating a town-wide count for the audit. This highlighted that ballots are not required by law to be sealed under a secure chain-of-custody during the audit period, only for the fourteen (14) day "lock-down" period originally applicable to lever voting machines.
- Despite the simplicity of the counting, several towns were unable to completely or correctly complete the official audit report form.
- One town's report showed significant differences between the manual and machine counts for votes. The audit report form from this town was among those that were incomplete.

---

<sup>1</sup> In this document we will frequently use the term "audit" when we mean "post-election audit" or "post-election audit counting session". Technically we believe that the whole process encompassing everything from the preservation of records, random drawings, counting in municipalities, the report by the University of Connecticut, and the evaluation of that report by the Secretary of the State would be the "audit". However, for readability we will usually follow the common practice of using "audit" to refer to parts of the whole.

## I. Introduction

After the April 2012 Republican Presidential Primary, Connecticut conducted a post-election audit<sup>2</sup>. The Connecticut Citizen Election Audit Coalition volunteers conducted an observation of the audit.

The coalition includes the League of Women Voters of Connecticut, Connecticut Common Cause, Connecticut Citizen Action Group, and Connecticut Voters Count. The purpose of the observation was to demonstrate citizen interest in the process, increase citizen involvement in elections, provide feedback to the Secretary of the State and the Connecticut Legislature on the audit process, and provide the public with information necessary to determine their confidence in our elections.

Coalition volunteers invested 32 days observing 30 counting sessions, providing feedback on the process to the Coalition. Without these volunteers, Connecticut's audits would take place with no observation and this report would not be possible.

By law, the Secretary of the State is required, in each election, to select at random 10% of Connecticut's voting districts to participate in post-election audits and select races for audit, *"...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.."*

The audit usually begins on the 15<sup>th</sup> day after each election and primary, however, the Secretary of the State's office held the random drawing on May 15<sup>th</sup>, 21 days after the primary. After the election, there was a question raised by the Secretary of the State's Office, that the law might not require an audit of a presidential primary. Such primaries are covered by different sections of the Connecticut statutes, than sections that cover other elections and primaries. It was determined to conduct a presidential primary post-election audit, keeping with the precedent set in 2008 by Secretary Susan Bysiewicz. Those same variations in statute provide the for the legal use of paper ballots without optical scanners. This delay necessitated three towns selected for audit to count all their ballots in every district as the ballots had been unsealed and combined for storage. 60 districts were selected for audit from the list of districts in the primary using optical scanners, yielding a list of 44 municipalities. Anticipating a very small primary, a number of municipalities used paper ballots without scanners as a means of saving the expense of programming and testing optical scanners. Only polling place optically scanned ballots are audited. ‘

---

<sup>2</sup> In this document we will frequently use the term "audit" when we mean "post-election audit" or "post-election audit counting session". Technically we believe that the whole process encompassing everything from the preservation of records, random drawings, counting in municipalities, the report by the University of Connecticut, and the evaluation of that report by the Secretary of the State would be the "audit". However, for readability we will usually follow the common practice of using "audit" to refer to parts of the whole.

## ***A. Citizen Observation: Challenges and Limitations***

Through past experience in observing audits, we have continuously improved our forms, training materials, and conference call training sessions. For this audit we made very few changes from the November 2011 observation.

We recognize that there may be occasional errors in our raw data derived from observations. However, when taken as a whole, the observations tell a collective story that is quite consistent and provides valuable feedback for continuing education of elections officials.

Without our volunteer observers willing to invest a day of their time, available for short-notice scheduling, and observing to the best of their ability, nobody but local election officials would know how post-election audits are conducted in Connecticut. Our observers care about democracy and ensuring that measures are in place to protect the integrity of our elections.<sup>3</sup>

## **B. Background**

All Coalition reports covering this and previous audit observations are available at <http://www.CTElectionAudit.org>

The Observation Report form, the Observer Code of Conduct, and detailed data behind the statistics in this report, including copies of official audit reports, are also available at <http://www.CTElectionAudit.org>

---

<sup>3</sup> Upon request of any registrar of voters participating in the audit, the Coalition would be pleased to discuss Coalition observation reports and provide feedback applicable to their municipality.

## **II. Analysis**

Compared to past audits there were significantly fewer ballot count and race count differences in this audit. The fewer number of ballots and the single race to be counted contributed to this improved result. We are skeptical that this audit is an indication of improvement.

### ***A. Procedures Are Not Being Followed, Understood***

In past years, the Secretary of the State's Office published incrementally improved audit procedures for each election, often basing those improvements on suggestions from Coalition members.

For this primary the Secretary of the State's Office published truncated procedures for the audit, ending at page 5 of the usually customized procedures. Two problems existed with these truncated procedures: they were dated 2010 and therefore were not the most recent procedures and the critical audit results reporting form was omitted.. Observers noted that some towns did not have the reporting forms and asked our help in locating them.

As in past audits, many officials did not review official procedures with the counters (62%) or train the counters (30%) for the audit.

### ***B. Six Official Audit Reports Not Available, To Date***

We appreciate the assistance of the Secretary of the State's Office in providing us with copies of the official municipal audit reports. As of this date, 5 official reports from 4 municipalities have not been sent to us (and apparently not received by the Secretary's Office). In one of those cases, observers obtained unofficial reports which have been used in our calculations. We as yet have not received the 4 reports missing from the Nov 2011 audit report.

### ***C. Missing, Incorrectly Completed Forms and Incomplete Audit Counting***

Reviewing the official district reports submitted to the Secretary of the State, we note that:

- Several report forms were not accurately completed, making it difficult to create comprehensive statistics or to depend on the audits as a vehicle for assessing the voting machines' accuracy and correct programming:
  - In 6 reports the number of ballots counted by hand was not filled in or was filled in incorrectly, one of these was also missing the machine counted ballot count.
  - In 8 reports some non-zero columns were not completed and/or incorrectly completed.

### ***D. Late Start Highlights Weak Chain-of-Custody Requirements***

Three towns selected for audit unsealed and combined their ballots from all districts, necessitating a town-wide count for the audit. This also highlights that ballots are not required by law to be sealed under a secure chain-of-custody during the audit period, only for the fourteen (14) day "lock-down" period originally applicable to lever voting machines.

A similar concern is that, in many towns, single individuals may access the ballots undetected for extended periods of time. In 44% of towns surveyed in this audit, a single individual can access the ballot storage. In other towns, even though policies require more than one person to access ballots, there are little protections to prevent a single person from accessing the ballot storage undetected.

### ***E. A Questionable Audit in One Municipality***

As noted previously three towns had unsealed and combined their ballots for long-term storage prior to the audit. The required remedy was to manually count all the ballots and votes in the municipality and compare to the total of the optical scan counts in all the districts combined. This should not have been a challenge for this presidential primary, given that the number of ballots in each town was well within the normal number counted in a single district for most elections. It was not a problem for two of the three towns.

One town's report showed significant differences between the manual and machine counts for votes. Officials neglected to report totals for either of the required ballot counts, although they did report the total number of votes. For our statistical calculations, we used the number of votes in calculating the differences in ballots.

Our observer reported that the audit was not well organized:

*Each individual just decided how to count themselves because they had a form to fill out in front of them which asked for the counts by race. The Supervisors were busy trying to get the total number of ballots to match, so no instruction was given to, or how to, count by race... Initially, they counted 770 ballots, and realized the machine count was 753. After removing "spoiled and blank," they had 755. Then they removed some more and came up with 745 ballots, 8 short of the machine count... They sent the counters home after approximately 1 hour, when the ballot total number was not resolved. Then they invited the two deputy registrars to come in and recount the totals, which confirmed the previous counts.*

Images of the actual official Audit Reports supplied from the Secretary of the State's Office along with our complied data a reports can be viewed at <http://www.CTElectionAudit.org>



### III. Audit Statistics

#### A. Ballot Count Accuracy

Among our greatest concerns in larger audits has been the discrepancies reported. We still have those concerns, but in this relatively simple audit with one vote for one race and comparatively few ballots, there were much fewer differences than in past higher volume audits. The table below shows the 8 districts with ballot count discrepancies and those not reporting ballot counts.

Apr 2012			
Scanner Counted Ballots	Hand Counted Ballots	Difference	Percent Difference
216	0	216	100.00%
127	1	126	99.20%
72	0	72	100.00%
60	0	60	100.00%
15	0	15	100.00%
753	745	8	1.10%
14	13	1	7.10%
660	661	-1	-0.20%

Table 1: Discrepancies in Numbers of Ballots Counted by Hand vs. Counted by Scanner<sup>4</sup> Districts, April 2012 Audits

The difference between 14 and 13 ballots was explained by an interesting anecdote included in the report:

*[The] 1st person to vote "Ballot went thru, but did not completely go through. Ballot returned, voter put back through a second time. Moderator observed & retrieved. Scanner was not all the way in place. Result ballot counted twice.*

---

<sup>4</sup> The law and audit procedures often use the term "Tabulator" to refer to election machines. We use the terms "Scanner" or "Optical Scanner" to make the report clearer.

## **B. Vote Count Accuracy**

Like ballot counts there were very few differences in race counts reported in this audit. Three of the four differences were in one municipality, and all but one difference was a single vote.

Apr 2012					
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
546	534	0	534	12	2.20%
69	70	0	70	-1	-1.40%
77	76	0	76	1	1.30%
42	41	0	41	1	2.40%

Table 2: Candidate counts where Hand-Counted Votes and Machine-Counted Votes Show Differences in Votes Apr 2012 Audit.

## **C. “Questionable” Votes and “Undisputed” Ballots**

In this audit there were very few questionable votes identified. It may be that primary voters in this low turn-out election are the among the most experienced optical scan voters and that the simplicity of requiring only one bubble to be filled in contributed to this result. The following table has all the examples of questionable votes identified.

Apr 2012				
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
122	120	2	122	0
1	0	1	1	0
2	1	1	2	0
9	8	1	9	0
21	20	1	21	0
47	46	1	47	0
2	1	1	2	0
1	0	1	1	0
7	7	1	7	0
1	0	1	1	0

Table 3. Examples of Candidate Counts Questionable Votes Apr 2012 Audit

## **Reference Statistics:**

Detailed base data can be found at: <http://CTElectionAudit.org>

## Appendix A: On Site Supervisor Interviews

One page of our observation report forms, titled *Interview On Site Supervisor(s)*, is used to gain information on several aspects of the election and post-election audit processes.

UConn memory card audit reports<sup>5</sup> and anecdotal reports<sup>6</sup> indicated significant problems with memory cards malfunctioning with what UConn characterizes as “Junk Data.” Our survey results are consistent with other anecdotal reports that the memory card problems may be increasing and significantly greater than previously realized.

We asked election officials about memory card problems experienced. Anecdotal accounts indicate that the percentage of memory card problems may be higher than those reported in the UConn<sup>7</sup> testing of memory cards. Many problems with memory cards are discovered in pre-election testing and many of those cards replaced by the vendor before pre-election testing is completed:

<b>Question Asked Officials</b>	<b>Apr 2012 YES</b>	<b>Nov 2011 YES</b>	<b>Nov 2010 YES</b>	<b>Aug 2010 YES</b>	<b>Nov 2009 YES</b>
Were there any memory card problems during pre-election testing or on Election Day? (% of those answering the Observation Report question)	66%	90%	56%	46%	41%

Table 4: Memory card problems reported by officials

---

<sup>6</sup> See: <http://www.ctvoterscount.org/?p=111> for summary and links to reports from Dori Smith of TalkNationRadio.

<sup>7</sup> UConn VoTeR Center: <http://voter.engr.uconn.edu/voter/Reports.html>. Due to the nature of the collection/selection of cards for the UConn, studies they do not represent a true random sample of the memory cards.

## Appendix B: Statistics from Observation Reports

Question	Yes	No	Not Obsd
Opening Chain-of-custody & Ballot Transport - Were the ballots delivered to the site by at least two individuals?	14	1	14
Opening Chain-of-custody & Ballot Transport - Were the ballots under the observation of at least two individuals at all times during the observation?	25	3	1
Opening Chain-of-custody & Ballot Transport - Were you permitted to observe that ballot container seals were not tampered with?	25	3	1
Opening Chain-of-custody & Ballot Transport - Were the ballot container seals intact?	25	1	3
Opening Chain-of-custody & Ballot Transport - Were you able to see the seals and the seal numbers on the Moderator's Return?	25	3	1
Training and Orientation - Did the supervisor review the state audit procedures with the counting team?	10	16	3
Training and Orientation - Did the supervisor clarify procedures for everyone before beginning to count ballots?	14	14	1
Training and Orientation - Did supervisor review the ballot and vote counting procedures in detail with the counting team(s)?[e.g. The role of each person on a team. Size of batches? Two officials should check each vote and hashmark etc.]	19	8	2
BALLOT counting - Was the total number of BALLOTS counted before the VOTES were counted for races?	27	2	0
BALLOT counting - Were the BALLOTS counted by each team such that a 2nd election official verified each count?	18	9	2
BALLOT counting - If multiple teams counted BALLOTS, was the totaling independently verified by a second election official?	9	4	14
Double Checking By Officials? (Answer this question based on all the counting and counting teams you actually observed): - IF HASHMARKING USED: Did a second official observe that each vote was read accurately?	7	7	15
Double Checking By Officials? (Answer this question based on all the counting and counting teams you actually observed): - IF HASHMARKING USED: Did a second official make duplicate hashmarks OR observe that each hashmark was recorded accurately?	8	6	15
Double Checking By Officials? (Answer this question based on all the counting and counting teams you actually observed): - IF STACKING/PILES USED: Was the vote counting process such that two election officials verified each vote was stacked as marked?	14	4	11

Question	Yes	No	Not Obsd
Double Checking By Officials? (Answer this question based on all the counting and counting teams you actually observed): - IF STACKING/PILES USED: Were the stacks of ballots counted such that two election officials verified that each stack was counted accurately?	13	5	11
Transparency and Observability? - IF HASHMARKING USED: Were you permitted to see that each vote was read accurately?	13	0	16
Transparency and Observability? - IF HASHMARKING USED: Were you permitted to see that each hashmark was recorded accurately?	13	0	16
Transparency and Observability? - IF STACKING/PILES USED: Were you permitted to see that each vote was placed in a correct stack?	18	0	11
Transparency and Observability? - IF STACKING/PILES USED: Were you permitted to see that the count of ballots in piles was accurate?	18	0	11
Blind Counting. - Were counters kept unaware of the election totals for the ballots or races they were counting until counting and recounting each race was finally complete?	11	16	2
Blind Counting. - If initial counts were off, were counters kept unaware of the exact and approximate level of difference? [	5	8	16
Ballots with "Questionable" Markings That Might Not Have Been Read Correctly By The Machine. - Were votes on questionable ballots ruled upon separately race by race for reporting as questionable votes in the Audit Report?	12	6	0
Ballots with "Questionable" Markings That Might Not Have Been Read Correctly By The Machine. - Were votes on such ballots ruled upon prior to the tallying of votes for each race AND counts not adjusted based on knowledge of the results of the total count for each race?	11	6	0
Discovering and resolving mismatches: - Did elections officials find a match between machine counts and manual counts the first time they tried?	20	6	2
Discovering and resolving mismatches: - Did elections officials try to resolve mismatched counts by counting again?	9	0	19
Discovering and resolving mismatches: - Did elections officials try to resolve mismatched counts by changing counting teams?	5	3	20
Discovering and resolving mismatches: - Did elections officials resolve mismatched counts by the end of the audit?	13	0	15
Tally procedures and tallying transparency: - Were you able to confirm that hashmarks for each team and batch were tallied accurately?	18	0	9
Tally procedures and tallying transparency: - Were you able to confirm that the number of ballots from multiple teams/batches was tallied accurately?	15	2	10
Tally procedures and tallying transparency: - Were you able to confirm that the number of votes from multiple teams/batches was tallied accurately?	15	2	10
Verifying and copying report forms: - Did elections officials record counts, including unresolved discrepancies if any, on official forms by the end of the audit?	26	0	1

Question	Yes	No	Not Obsd
Verifying and copying report forms: - Were you given an opportunity to have a copy or make a copy of the official forms?	24	2	3
Verifying and copying report forms: - Did the BALLOT counts on the signed optical scanner tape(s) printed at the end of election-day match the tape ballot count reported on the audit report form(s)?	25	0	0
Verifying and copying report forms: - Did the RACE counts on the signed optical scanner tape(s) printed at the end of election-day match the machine tape race counts reported on the audit report form(s)?	24	0	2
Closing Chain-of-custody - Could you confirm that ballots were returned to their proper containers?	27	0	2
Closing Chain-of-custody - Were the ballot containers resealed?	28	0	1
Closing Chain-of-custody - Were seal numbers recorded correctly on forms?	28	0	2
Overall Concerns - Do you have any concerns over the way the room was laid out?	2	27	0
Overall Concerns - Do you have any concerns that the auditing was not well-organized?	1	28	0
Overall Concerns - Do you have any concerns with the integrity of the counting and totaling process?	3	26	0
Overall Concerns - Do you have any concerns that the manual count was inaccurate?	0	29	0
Overall Concerns - Do you have any concerns that the officially reported information is inaccurate?	1	28	2
Overall Concerns - Do you have any concerns with the transparency/observability of the process?	1	28	0
Overall Concerns - Do you have any concerns with the chain-of-custody?	10	19	0
Election Events - Were there any memory card problems in pre-election testing or on election day?	19	8	0
Election Events - Were there any problems with the IVS voting system for persons with disabilities? Were they all setup and working correctly?	2	25	2
Election Events - Were there any other significant events, ballot problems, scanner problems or occurrences before during or after the election of note?	2	25	2

Table 5: Statistics from Observation Reports