

Prepared Remarks; S.B. 775, 777, 779, 901, 1058, H.B. 6428, 6429

Government Administration and Elections Committee  
Testimony – March 11, 2013

Luther Weeks  
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Chairs and members of the Committee, my name is Luther Weeks, Executive Director of CTVotersCount. Since 2007, I have organized voters, to observe and independently report on Connecticut's post-election audits, as executive director of the Connecticut Citizen Election Audit Coalition. I have personally observed over 70 audit counting sessions in municipalities across Connecticut. Today, I am speaking only for CTVotersCount.

We require random audits of voting machines for the same reasons that we inspect trucks, bridges, and airplanes -- Because mechanical systems, no matter how well designed can break down over time.

We require random audits of voting machines for the same reasons that we audit tax returns, and campaign expenditures. Because humans are fallible, make mistakes, and take short cuts; if there is no random checking, some will likely commit fraud. Random auditing deters fraud and prevents errors by encouraging care and compliance.

S.B. 901 would reduce that commitment by cutting the current audits in half. The audits should be strengthened, not weakened. I propose changes to S.B. 901 that would strengthen the audit. Changes that would also reduce the work by close to half.

S.B. 901 would void much of the value of the audits by allowing the manual counting of ballots to be accomplished by a duplicate scanner and memory card. Such a change would not detect memory card or scanner program errors, nor would it detect fraud.

We are on the verge of being able to automate the audit process. Commercial products are being tested in four states, open source systems are being developed, and an alternative system is being developed the University of Connecticut and our own Secretary of the State's Office. These innovative systems would not eliminate the need for manual audits, but dramatically reduce the work involved for a transparent, credible audit.

I am ready to work with the Committee, Registrars, and the Secretary of the State to strengthen the audits and to reduce the work and frustration for election officials.

Currently the total annual cost for random audits is in the range of \$100,000 to \$150,000 per year or about \$0.05 per voted ballot -- a fraction of the cost of just printing ballots, let alone election day costs.

Let Connecticut not be known as the first state in the nation to effectively eliminate post-election audits.

I support the concept of electronic check-in. I do not support H.B 6428, as it does not impose any requirements or standards with regard to the system and processes for critical electronic voter check-in. Nothing to insure the equivalent of the current paper based procedures.

Thank You

# Spoken

**S.B. 901 – Oppose with An Alternative Proposal**

**Government Administration and Elections Committee  
Testimony – March 11, 2013**

**Luther Weeks  
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Chairs and members of the Committee, my name is Luther Weeks, Executive Director of CTVotersCount. Since 2007, I have organized voters, committed to election integrity, to observe and independently report to you and the public on Connecticut's post-election audits. I have personally observed over 70 audit counting sessions in municipalities across Connecticut.

We require random audits of voting machines for the same reasons that we inspect trucks, bridges, and airplanes. Because mechanical systems, no matter how well designed can break down over time.

We require random audits of voting machines for the same reasons that we audit tax returns, and campaign expenditures. Because humans are fallible, make mistakes, and take short cuts; if there is no random checking, some will likely commit fraud. Random auditing deters fraud and prevents errors by encouraging care and compliance.

Your predecessors mandated audits and voters observe audits, in order to protect democracy, to provide justified confidence in our elections to candidates and to the public. This bill would reduce that commitment by cutting the current audits in half. The audits should be strengthened, not weakened.

I have proposed changes to the proponents of this bill that would strengthen the audit. Changes that would reduce the work by close to half. (list attached)

Further, this bill would void much of the value of the audits by allowing the manual counting of ballots to be accomplished by a duplicate scanner and memory card. Such a change would not detect memory card or scanner program errors, nor would it detect fraud.

We are on the verge of being able to automate the audit process. Commercial products are being tested on the November 2013 election in four states, open source systems are being developed by OpenCount, and an alternative system is being developed under a PEW grant by the University of Connecticut and our own Secretary of the State's Office. These systems innovative would not eliminate the need for manual audits, but dramatically reduce the work involved for a transparent, credible audit.

I am ready to work with the Committee, Registrars, and the Secretary of the State to strengthen the audits and to reduce the work and frustration for election officials.

Based on official reimbursement requests from registrars in Connecticut we estimate the total annual cost for existing random audits of elections and primaries to be in the range of \$100,000 to \$150,000 per year or about \$0.05 per voted ballot -- a fraction of the cost of just printing ballots, let alone election day costs. At most, this bill would save half that amount statewide, perhaps \$50,000 to \$75,000 annually.

<http://ctvoterscount.org/what-did-the-november-2008-post-election-audit-cost/>

Let Connecticut not be known as the first state in the nation to effectively eliminate post-election audits.

Thank You

## Strengthening our post-election audits, and cutting the work by approximately 40%

Our current audits have many weaknesses. The good news is that many of those weaknesses can be remedied without significant additional effort. Also improved procedures and training for the audits will pay off in accuracy, efficiency, and less recounting.

In our opinion, it would be a reasonable trade-off to make the following improvements in the post-election audits in return for a reduction in the randomly selected districts from 10% to 5%:

- Subject all originally machine counted ballots in selected districts to the audit, including polling-place voted, absentee, early voting, and Election Day Registration ballots. This would represent a 10% increase in the number of ballots counted and perhaps a 12% increase in the effort for the audit where central count absentee ballot counting occurs, and less than 10% increase in the effort where polling place absentee ballot counting is used. Overall, the current level of effort would still be reduced by 40%.
- It is important that all voting machines be subject to selection for audit. Central count absentee ballot machines require a more complex setup than polling place machines. If EDR is as successful in Connecticut as in other states, it could represent 20% or more of the vote. Should Connecticut adopt early voting we could expect that 40% or more of our votes would not be polling-place machine counted, further rendering the current law far from adequate.
- Subject all contests on the ballot to audit, not just races. Exempt races without opposing candidates from the audit.
- Have registrars randomly select the contests for audit, separately for each district, at the beginning of the municipal audit counting session, for every election and primary. This will make the audits much more inclusive and transparent, with the selection more clear and uniform. There would be no impact on the amount of counting, with just a little more to be done at the start of the audit.
- Require in the law a three workday public notice of the date, time, and location of audit counting sessions and some way that the public, including the Coalition could easily find this information for all the towns. This would be a minor additional requirement for registrars. It has been an ongoing problem for the Coalition to get information from towns with very part time registrars, and occasionally a couple of registrars that seem to be actively working to avoid the public finding this information prior to the counting. Perhaps, public notice and informing the SOTS Office and the town clerk at least three full business days in advance would be sufficient.
- Require in the law that all reports be filed with the SOTS office within 24 hours of the completion of the counting sessions for a town. Currently some reports have yet to be filed years after the completion of local counting.
- Place in law the rights of observers, now contained in SOTS procedures.
- Require that machine tapes, district and central AB Moderators Returns be available for review by the public at the audit.
- Require random drawing of districts to be performed by the SOTS at least five business days before the start of the audit counting period. This change should be welcomed by registrars as well as advocates.

Let me add that advocates are disappointed in the quality and efficiency of counting methods in use in towns. It makes me cringe when I see committed people do so much work that could be done more efficiently, more accurately, and less stressfully. In this November 2012 audit especially, several registrars requested and encouraged that I publish advice on counting to help them.

*“Auditing election results isn’t just a good idea, it’s absolutely essential in order to guarantee the integrity of our elections,” said Secretary Merrill. “We don’t just take the machines’ word for it. So we will have every ballot cast in a full 10% of precincts using optical scan machines hand counted and matched against the machine totals...”* - Press Release Nov 20, 2012

*“but we don’t simply accept the optical scanners’ word for it,” said Secretary Bysiewicz. “The independent audits ensure that each vote was counted properly this month and give confidence to the people of Connecticut that our election process is secure and accurate... Auditing election results isn’t just a good idea, it’s absolutely essential in order to guarantee the integrity of our elections,” said Secretary Bysiewicz. “So we will have every ballot cast in a full 10% of all our precincts hand counted and matched against the machine totals”* .- Press Release Mar 23, 2010

**Connecticut Citizen Election Audit Coalition Reports:** <http://CTElectionAudit.org>

### **The necessity of comprehensive manual, hand counted audits:**

**H.R. 12 – Co-Sponsored by all 5 Connecticut U.S. Representatives**

<http://thomas.loc.gov/cgi-bin/query/F?c113:l:/temp/~c113COy0Wc:e117900>

*“(i) PAPER BALLOT REQUIREMENT- (I) The voting system shall require the use of an individual, durable, voter-verified, paper ballot of the voter's vote that shall be marked and made available for inspection and verification by the voter before the voter's vote is cast and counted, and which shall be counted by hand or read by an optical character recognition device or other counting device. ...*

*(iii) MANUAL COUNTING REQUIREMENTS FOR RECOUNTS AND AUDITS- (I) Each paper ballot used pursuant to clause (i) shall be suitable for a manual audit, and shall be counted by hand in any recount or audit conducted with respect to any election for Federal office.”*

**Principles and Best Practices for Post-Election Audits:** <http://www.electionaudits.org/principles>

*“Ideally, post-election audits use hand-to-eye counts of voter-marked, voter-verified paper ballots.”*

**Report on Election Auditing, League of Women Voters of the United States**

<http://www.lwv.org/content/report-election-audits-task-force>

*“Audits should incorporate totals from all jurisdictions and all ballot types including those cast at early voting sites and on Election Day at the polls, absentee, mail-in and accepted provisional ballots”*

*“Ideally, post-election audits use hand-to-eye counts of voter-marked optical scan ballots or VVPATs, including those produced by ballot generating devices or ballot marking devices.”*

**Post-Election Audits: Restoring Trust In Elections, The Brennan Center For Justice**

[http://brennan.3cdn.net/f1867ccc368442335b\\_8em6bso3r.pdf](http://brennan.3cdn.net/f1867ccc368442335b_8em6bso3r.pdf)

*“AUDIT ALL METHODS OF VOTING. In conducting post-election audits, election officials should not exclude any category of votes (e.g., absentee ballots, provisional ballots, damaged ballots). Audits must be comprehensive to ensure that both error and fraud can be readily detected. Although voters cast the majority of ballots on polling place equipment, many jurisdictions increasingly see significant numbers of other ballot types, including early, absentee, provisional and emergency ballots...*

*specific guidelines are needed to ensure that observers will be able to actually see each vote counted.”*

**S.B. 775 S.B.777 – Oppose – Issues of expense, availability, equality, timeliness  
Government Administration and Elections Committee Luther Weeks  
Testimony – March 11, 2013 Luther@CTVotersCount.org  
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Chairs and members of the Committee, my name is Luther Weeks, Executive Director of CTVotersCount, a Certified Moderator, and a Computer Scientist.

**Although well-intended, these somewhat ambiguous bills raise issues of expense, state database timeliness, state database availability, and equality.**

S.B. 775 would allow pollworkers to access an electronic database by computer, laptop, or tablet to help voters find their correct polling place.

- The law does not seem to prohibit a town from accomplishing this today. The bill tittle says it is to “encourage” use of technology tools by poll workers, but only suggests amending the law to “better enable” such use, with no indication how that would be accomplished.
- If optional, by town, or optional by polling place it might setup a equality/civil rights issue for towns that cannot afford it or decide to prohibit it.
- If mandatory, this might be a considerable unfunded mandate requiring equipment and Internet access for each polling place, plus workers trained to use the SOTS/Google application. Cost, perhaps \$500 in equipment plus \$200 per polling place not currently equipped with Internet access.
- This system would require an emergency backup plan, not only for loss of connectivity, but also so that the central database be quickly updated with new locations in cases of emergency — all when power or connectivity failures might preclude access for update or reference, rendering the system useless -- the very times when polling place location information would be most needed.
- A much more economical, effective system would be to require or “encourage” that towns provide a printout of street listings for all polling places in town at each polling place. This would serve all voters who went to the wrong polling place in their own town and would not require an emergency backup plan

SB 777 would “allow” pollworkers to check-in voters electronically.

- If mandatory, this might be a considerable unfunded mandate requiring electronic pollbooks plus bar code readers for each polling place that could cost approximately \$1000 per polling place, per check-in line
- Also see my testimony, submitted today on H.B. 6428, regarding the need for and value of state certification/approval of electronic check-in hardware, software, and procedures.

Thank You

**S.B.779 H.B. 6429 – Oppose – Either Bill Would Create Unintended Problems**

**Government Administration and Elections Committee**

**Luther Weeks**

**Testimony – March 11, 2013**

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Chairs and members of the Committee, my name is Luther Weeks, Executive Director of CTVotersCount, a Certified Moderator, and a Computer Scientist.

These well-intended bills are proposed, as I understand them, to ease the work for officials in counting and accounting for multiple votes for cross-endorsed candidates. Each bill would do little to reduce work for officials and both have unintended, negative consequences.

**S.B. 779 would require that all tabulators used in Connecticut not accept a dual vote for the same cross-endorsed candidate, rejecting such as an overvote:**

- **Our currently approved AccuVoteOS tabulators cannot be programmed to accomplish this for multi-vote races. Thus in municipal elections, any polling place with cross-endorsed candidates running in multi-vote races would have to conduct their election entirely on paper, with manual counting late at night – This is a more error prone, less secure, process than we have today. It would make election officials jobs more, not less, challenging.**
- **Similarly, all absentee ballots and Election Day Registration ballots with dual votes would be rejected in all elections, adding to the number of hand-counted ballots.**
- **The formulas for allocating cross-endorsed “Unknown” votes would still need to be understood and applied to all hand-counted ballots.**

**H.B. 6429 would require that any tabulator certified by the Secretary of the State would need to eject all cross-endorsed votes as overvotes:**

- **In my interpretation, our currently certified AccuVoteOS scanners would remain certified, and thus this law would have no effect until scanners meeting these requirements are located, certified, and purchased.**
- **If my interpretation is not correct, once this law were in effect, it would preclude the use of AccuVoteOS scanners in any election in Connecticut – requiring that all ballots in all elections be hand-counted.**
- **This law would preclude the certification of a subsequent release of software for our AccuVoteOS scanners, unless such version met this requirement – an unlikely development.**
- **The formulas for allocating cross-endorsed “Unknown” votes would still need to be understood and applied to all hand-counted ballots.**

**Thank You**

**S.B. 1058 – Some Related Suggestions to Clarify Ballot Retention**

**Government Administration and Elections Committee  
Testimony – March 11, 2013**

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Chairs and members of the Committee, my name is Luther Weeks, Executive Director of CTVotersCount, a Certified Moderator, with four years leading central counting of Absentee Ballots.

This bill would codify that town clerks can destroy all unused absentee ballots 10 days after an election.

**I have no objections to this one change, however, several additional weaknesses, ambiguities, and inconsistencies in the preservation and security of paper ballots need to be addressed.** Ballots are retained and secured differently, based on their original voting and counting method and type – absentee, in person at a polling place, and Election Day Registration.

Fixing these inconsistencies is important for two reasons:

1. **Unresolved ambiguities were introduced into the law with optical scanners.** Parts of the law dealing with polling places have never been updated to recognize that there are two things to be protected after each election at each polling place: scanners and ballots. The law was left for the most part with standards applicable to lever machines, not recognizing that ballots are involved in polling places, and that both machines and ballots need protection because of the potential for audits, technological investigations, and court orders, that may be initiated after the current ‘lockdown’ period of 14 days.

**Thus today, 90% of our ballots are not required to be sealed beyond 14 days after an election. Not sealed before they are subject to audit.**

2. **If as expected, more and more citizens vote by absentee and Election Day Registration it is important that those ballots and associated materials be protected from changes, additions, or deletions.**

Differences between absentee ballot and polling place ballot storage:

- Polling place ballots are sealed on election night via numbered, recorded, tamper evident seals in ballot containers.  
Absentee ballots are stored in envelopes with unnumbered tamper evident tape, delivered by election officials to town clerks. Envelopes can easily be opened, ballots accessed, and placed into a new envelope with new unnumbered tamper evident tape, completely undetected.
- Except for recanvasses, audits, or court orders:  
Absentee ballots are to remain sealed for 180 days after an election.  
Polling place ballots and scanners are to remain sealed for 14 days after an election.
- Town Clerks store absentee ballots. Registrars store polling place ballots.

**Ironically,**

- **Post-election audits start on day 15 after the election and the ballots audited are not required to be sealed after day 14. Credibility and integrity demand that audits be performed on provably untainted ballots. The audits also may require subsequent investigations of scanners, memory cards, and ballots going on at least several weeks after the completion of the audit counting.**
- **All absentee ballots are opened and counted by election officials and returned to the registrar, then to the town clerk for storage. Especially, for polling place counted absentee ballots it would make sense to store and seal them in the same containers as other polling place ballots.**

**Recommendations:**

**There is much that could be done to improve the security and the credibility of stored ballots, but at least we can start with reasonable, consistent, non-redundant handling of all ballots. Requiring that:**

- **All ballots be sealed in approved containers with numbered, recorded, tamper evident seals.**
- **All ballots be sealed for at least 90 days, except for for recanvasses, audits, or court orders.**
- **Two individuals of opposing interests be required to access ballots, and that such access be logged by a third party.**
- **All ballots be retained and stored under the supervision of the same individual(s). I would recommend the town clerks, since they could be the third party to log access, and because they have other document retention and protection responsibilities.**

**I have attached some best practices identified by the Brennan Center for Justice, that go further and would likely be expensive given our town-by-town election management and ballot storage. Regionalization would be an ideal vehicle for economically instituting such practices.**

**Thank You**

## Post-Election Audits: Restoring Trust In Elections, The Brennan Center For Justice

[http://brennan.3cdn.net/f1867ccc368442335b\\_8em6bso3r.pdf](http://brennan.3cdn.net/f1867ccc368442335b_8em6bso3r.pdf)

*In The Machinery of Democracy, the Brennan Center examined some of the best chain-of-custody practices in jurisdictions across the country. Among the practices cited approvingly in the report were:*

- *Between elections, voting systems for each county are locked in a single room, in a county warehouse.*
- *The warehouse has perimeter alarms, secure locks, video surveillance and regular visits by security guards.*
- *Access to the warehouse is controlled by sign-in procedures, possibly with card keys or similar automatic logging of entry and exit for regular staff.*
- *Some forms of tamper-evident seals are placed on machines before and after each election. Election officials should place seals over all sensitive areas including vote data media compartments, communication ports and the seams of the voting system case.*
- *At the close of polls on Election Day, all audit information (i.e., event logs, voter verifiable paper records, paper ballots, machine printouts of vote totals) that is not electronically transmitted as part of the unofficial upload to the central election office is hand-delivered in official, sealed information packets or boxes. All seals are numbered and tamper-evident.*
- *The transportation of information packets is completed by two election officials representing opposing parties who have been instructed to remain in joint custody of the information packets or boxes from the moment it leaves the precinct to the moment it arrives at the county election center.*
- *Once the sealed information packets or boxes have reached the county election center, they are logged. Numbers on the seals are checked to ensure that they have not been replaced. Any broken or replaced seals are logged and the reason for broken or replaced seals is investigated, where necessary. Intact seals are left intact.*
- *After the packets or boxes have been logged, they are provided with physical security precautions at least as great as those listed for voting machines, above. They should be stored in a room with perimeter alarms, secure locks, video surveillance and regular visits by security guards and county police officers; and access to the room is controlled by sign-in, possibly with card keys or similar automatic logging of entry and exit for regular staff.*

*All jurisdictions should detail their chain-of-custody practices for their voting system software, hardware, and audit records (including paper and electronic) in a document that is subject to public review and comment. Public review and comment would increase transparency and accountability for the physical security of audit materials, as members of the public would become invested in the process. The documentation of chain-of-custody requirements allows observers to determine when officials deviate from agreed procedures. Such a document should explain why these procedures are necessary; this would reduce the likelihood of local deviation from the guidelines and ensure that necessary deviations (in the case of an unforeseen incident) held to the spirit of the procedures.*

**H.B. 6428 – Oppose – Should Require State Certification and Procedures in Law**

**Government Administration and Elections Committee**

**Testimony – March 11, 2013**

**Luther Weeks**

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Chairs and members of the Committee, my name is Luther Weeks, Executive Director of CTVotersCount, a Certified Moderator, and a Computer Scientist.

This bill, as I understand it, is intended to allow Registrars of Voters in any town to employ electronic check-in of voters on election day.

**In general, I support the concept of electronic check-in. I do not support this H.B. 6428 as it does not impose any requirements or standards with regard to the capabilities, reliability, accuracy, and integrity of electronic check-in systems nor associated manual processes in support of electronic check-in.**

Most systems we use are certified in some way:

- When states, counties, or municipalities purchase voting machines, they are certified by the state. States often also require or accept Federal certification.
- When Connecticut chose electronic voting systems in 2005-2007, Secretary of the State, Susan Bysiewicz chose federally certified voting systems for evaluation, held public demonstrations of those systems around the state, surveyed the opinions of voters using those systems, followed by focus groups of Registrars, Persons with Disabilities, and Technologists. The result was an effective, uniform system in use everywhere in the State. Our current system is not perfect, but a far cry from the chaos that would exist if each town were responsible for evaluating and purchasing their own individual systems from vendors.
- Last year this Committee was concerned, appropriately, that the SOTS take care that online registration be tested, secure, and accurate.
- When towns purchase a vehicle, it meets certain standards that indicate it is roadworthy and the model has been tested.

However, for pollbooks there are no such standards established, no recognized testing authority.

**Selecting and using electronic check-in poses many of the same challenges associated with purchasing voting systems, along with some differences which make it less challenging and others which make it more necessary that state certification or approval be required.**

Currently there are no Federal standards or certification of electronic check-in systems. Without such standards the evaluation of such systems falls entirely on the state, or as proposed in this bill, to each individual town's registrars, few of whom are capable of or funded for evaluating, testing, and developing implementation plans.

**As I understand it, this law would allow anything "electronic" to be used as a check-in system, such as a word processor, spreadsheet, or a system written by a registrar, their brother-in-law, or niece etc. Any electronic check-in system should be approved and certified by the Secretary of the State.**

**Check-in systems should serve voters and officials:**

- Many of the benefits of electronic pollbooks comes from the ability to download voter lists and upload check-in results automatically to a Centralized Voter Registration System (CVRS). Any system purchased should be approved by the Secretary of the State as compatible with and safe to connect to our CVRS. The Secretary should also negotiate with check-in systems vendors and CVRS vendors to keep their systems compatible in the future.
- Long run benefits would be obtained by systems that can be networked within a polling place, connecting with the state CVRS such that Election Day Registration and cross-checking of voters can be immediate. This function would almost be a prerequisite for regional or multiple early voting centers in the same municipality.
- Such systems should be tested for ergonomics and performance with a variety of individuals doing the checking, including younger, older, and typical pollworkers. The number of registered and expected voters which can be accommodated by each check-in line should be evaluated so that officials can plan to effectively serve voters.
- According to researchers at the recent *NIST Future of Voting Conference*, there is a lack of information on the efficiency of electronic pollbooks vs. paper pollbooks, especially with older poll workers. <http://tinyurl.com/nistdzy1> (1:26-1:28 into part 1)

**There are no standards/requirements for check-in systems in this law. Standards should include:**

- Assurance that such systems do not lose information on checked-in voters in cases of power, computer, or software failures
- Assurance that such systems create a permanent record of checked-in voters and other activities that can be made available to the public, as they can today with paper check-in books.
- Assurance that such systems record all instances where a voter was checked-in and a pollworker later unchecked that voter.
- A way to record that apparently the wrong voter name was checked, when later the correct voter attempts to vote and is allowed to vote.
- How will the system account for absentee voters from the town clerk? Systems must record when a voter withdraws their absentee ballot before 10:00am and votes in person,
- The ability to assure that the same voter is not checked-in in multiple check-in lines.
- The ability to rapidly expand to additional check-in lines to reduce long lines.

**There should also be standard procedures for the loading, testing and use of electronic pollbooks. Especially emergency procedures for power, hardware, or software failure that allow voting to continue and a complete, unified check-in record created.**

**An example of a recent purchase of 70 check-in stations at \$894 each:**

<http://www.kcrg.com/news/local/174874331.html>

**Considering the lower quantities in most Connecticut municipalities and the need for extra equipment required to be available for opening extra lines, costs for just the hardware may well exceed \$1,000 per planned check-in line.**

**Thank You**