

# Testimony Response & Clarification

Government Administration and Elections Committee  
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For HB-6441

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Chairs and members of the Committee, as you recall, I testified for HB-6441 on February 18, 2009. At that same hearing several others supported and expressed concerns with several sections of the bill as drafted. This addendum to my testimony will address several issues raised in the hearing which deserve a response so you can have complete information as you consider improving the confidence in Connecticut elections.

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## Concerns with Chain-of-Custody Penalty

In drafting HB-6441 we chose to modify or copy existing election law as much as possible. Our goal was to meet recognized standards, while introducing as little new text as possible. In drafting Section 2 (9-302) on ballot security, we turned to existing law for security and used the penalties in the existing 9-310 which covers the sealing of the tabulator.

**Existing Sec. 9-310 (emphasis ours):** 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 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. If it is determined that a recanvass is required pursuant to section 9-311 or 9-311a, immediately upon such determination the tabulators, write-in ballots, absentee ballots, moderators' returns and all other notes, worksheets or written materials used at the election shall be impounded at the direction of the Secretary of the State. Such package shall be preserved for one hundred eighty days after such election and may be opened and its contents examined in accordance with section 9-311 or upon an order of a court of competent jurisdiction. At the end of one hundred eighty days, 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 after it has been locked as above directed or breaks or destroys or tampers with the seal 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 or by the State Elections Enforcement Commission in any special case, except as provided in section 9-311, 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

Our presumption was that inappropriate access to the ballots in today's system deserves a similar penalty as the counting mechanism of the previous lever machines. We assumed that the legislature would be more likely to support a bill that was as consistent as possible with existing law.

We note that this same provision in 9-310 was preserved in SB-909 to which we heard no objections.

We take no rigid position on the exact penalty for any violation, we leave it to the judgment of the legislature to determine applicable maximum and types of penalties. We do however, urge consistency in new law, revised laws, and existing laws.

## Concerns with Registrars Handling Ballots

ROVAC expressed concerns with Section 10, that someone would have to be designated to replace registrars in all elections in which they were candidates and that it would be unnecessary if elections in which they were running uncontested.

1. The intention of the original text submitted to the GAE and the paragraph in the draft law was that registrars not handle or transport the paper ballots or machines. We did not intend that they be bared from supervising the election or performing other normal duties of Registrar before and after the election.
2. Our original text submitted to the Committee specifically exempted cases where registrars were running uncontested. We would agree with ROVAC that the bill be changed to incorporate the exemption in some way similar to our proposed draft text. Also, perhaps registrars should be allowed to handle the ballots after release by the Secretary of the State as well. The original proposed draft text (emphasis ours):

### **Section 10.** NEW (*effective from passage*)

When an Election Official is a candidate. Other statutes, regulations, and procedures notwithstanding, **unless unopposed**, when a Registrar of Voters or other election official is a candidate for office in any election he or she will avoid handling, touching, or transporting ballots for such election at any time before and after such election. He or she will avoid handling, touching, or transporting voting machines for such election thirty days before such election, and until voting machines are released in writing by the Secretary of the State.

## Concerns with Faxing Results

ROVAC expressed concerns with the requirement for faxing Head Moderator Returns by midnight. And the Moderator's Returns by 7:00am..

The text in question for the Head Moderator's Returns is:

The moderator [~~may~~] **shall** transmit such list to the Secretary of the State by facsimile machine or other electronic means prescribed by the Secretary of the State, not later than midnight on election day. [~~If the moderator transmits such list by such electronic means, t~~]  
**T**he moderator shall also seal and deliver one of such lists to the Secretary of the State not

later than the third day after the election. ~~[If the moderator does not transmit such list by such electronic means, the moderator shall seal and deliver one of such lists by hand either (1) to the Secretary of the State not later than six o'clock p.m. of the day after the election, or (2) to the state police not later than four o'clock p.m. of the day after the election]~~

1. Our goal was to eliminate the hand delivery option and to speed up the collection of results. We apparently had incorrectly assumed that most Head Moderators would have used the existing fax option, rather than the hand delivery option.
2. We have no objection to changing the text to specify “7:00am the day following election day”. Or in leaving the current law alone for Head Moderator’s Returns, since the process in the law for data entry by the Secretary of the State’s Office only requires the Moderator’s Returns, and does not require the Head Moderator’s Returns.
3. In general we are open to extending deadlines by reasonable amounts. It seems that taking five minutes to fax Moderator’s Returns, which should be filled out on election night in polling places, can be accomplished over night.
4. We point out that a) every town and even every district has a fax and phone line in every polling place because of the IVS. b) Faxing costs the town almost nothing. Hand delivery would seem to be an archaic and unnecessary use of time of the State Police.

## **Concerns with Cost**

Concerns with cost of the audit, ballot storage, and vote accounting were raised by the Secretary of the State, ROVAC, and Town Clerks’ Association.

We are cognizant of the current fiscal situation in Connecticut and in our municipalities. While our primary goal is to provide Connecticut voters with election integrity and confidence, we are concerned with costs in every proposal we offer. HB-6441 was drafted as a low cost compromise from the ideal as recommended by national good government groups, which would require an independent audit board.

Like others who testified on the 18<sup>th</sup>, we support and oppose several election bills. We note that often others testified in support of a variety of bills that have cost requirements that would significantly exceed those of HB-6441, yet only express concerns with costs of bills they oppose. Several expressed no concerns while articulating the costs or shifts in costs involved in items such as: training for registrars, early voting, expanded absentee voting, new classes of provisional ballots, Special Elections for Senate vacancies, or additional polling places. Concern with costs should be relative – relative to the benefits and risks – relative to the absolute dollar amounts. We supported and opposed several of these bills based on their integrity implications, while recognizing that cost is also a significant consideration.

As the proposer we believe it falls on us to recommend a way to practically accomplish non-obvious aspects of the legislation. However, proposing a detailed way of accomplishing something does not preclude the Secretary Of The State, Municipalities, or other agencies from choosing a different or better way of accomplishing the same requirement of the law.

There are several areas where HB-6441 could effect costs in a non-trivial way:

1. The change from 10% audits of three races to the tiered percentage based audits would base the number votes counted for state-wide and congressional races on the results of the election. Some elections would result in counting more votes than under the current law, in many elections the votes counted would be less. In 2009, the cost for auditing the Presidential Primary and August Primary would have been significantly less; for the November Election cost would be approximately the same between the current law and the proposed law, actually about 40% less than the expanded audit ordered by the Secretary of the State. Over a four-year cycle of elections the costs under the current law vs. the proposed law would be the same.

The law sets higher standards for counting ballots accurately and transparently. Realistically this would mean larger counting teams. This would greatly increase the accuracy of the counting by reducing human error, reducing the need to recount ballots when the initial hand count indicates a difference with the tabulator count. This would dramatically reduce the costs incurred for counting a second or third time and for further investigations of differences by the Secretary of the State's Office. Several of the audits performed after the November Election were redone completely on an additional day, others were counted multiple times on the same day, and others resulted in otherwise unnecessary investigations. So, the new law would be expected to both increase the costs of the initial counting, however, counting accurately the 1<sup>st</sup>

Currently, with the ad-hoc counting procedures the cost of the audit varies widely between towns. As of February 19th, forty-six (46) of fifty-five (55) towns had requested reimbursement from the State for a total cost of \$72,045. HB-6441 would have required the counting of approximately 40% less votes. The costs per ballot (usually five races) counted ranged from \$0.09 to \$1.88. With the average and median cost of \$0.60 and \$.49 per ballot. The lowest five and highest five towns were: \$.09, \$0.20, \$0.20, \$0.22, \$0.23, \$1.88, \$1.44, \$1.36, \$1.14, \$1.10.

Given this level of variability it would be difficult to estimate the costs of future audits under the current law or make reliable comparison or predictions with more accurate and efficient counting methods. Bottom line cost impact approximately, breakeven.

2. The proposed law specifies that ballots be kept locked in vault storage under two keys until released at the completion of the audit and all investigations. This means that enough such storage be provided to hold all the ballots for at most two elections, such as the recent November Election and the August Primary. From the town audit reports of the recent Presidential Election, several towns held 1500-1700 ballots in a single standard sealed case. For towns with small numbers of voters per district, space to store two cases would be needed to cover two elections. In the vast majority of towns and districts space for two to four cases would be sufficient. per district even in the case of large turnout for November Election, preceded by hotly contested primaries in two major parties.

The sources of cost associated with this could be 1) purchasing of additional standard ballot bags to meet the requirement that ballots remain under seal beyond the current fourteen (14) days. This would amount to doubling the current required number, in most cases \$40 or \$80 per district. 2) Purchasing a standard metal cabinet and adding two padlocks to it by the town staff. 3) Finding, making or building space in a town vault to hold the cabinet..

Obviously if a town's vault is nearing capacity, adding on would be a significant expense. Perhaps there are other records currently vaulted that are less critical than ballots. For instance, in my town, several years of check-off lists were maintained in the crowded old town vault and ballots are now kept in an old classroom, in an unused school wing. Perhaps this is just one of

those recurring costs to obtain the benefits of strong local government prevalent in New England vs. county government prevalent in other states.

While we believe that ballots subject to audit or recount deserve at least the protection described in the current HB-6441, we offer the following potential alternative to the current bill text:

The municipal clerk must provide sufficient vault facilities to store the sealed ballots with the equivalent security as that used for other town records **or strong tamper proof metal storage cabinets within a locked room in a secure building and in addition locked in a manner that requires the presence of the town clerk or a deputy and one of the registrars to open, requiring two keys, one only available to each registrar, and one only available to the municipal clerk and a deputy.**

Such a requirement could be satisfied by the, so called, “election on wheels” used by many towns, with the addition of to sets of substantial padlocks. Perhaps some larger towns would need more than one.

I also provide the following reference that outlines the limited protection provided by “Tamper Evident Seals” from the American Scientist:

<http://www.americanscientist.org/issues/feature/2006/6/tamper-indicating-seals>

3. The requirements that the Secretary of the State’s Office web post faxed-in Moderators Returns and tabulator tapes, and input detailed election data.

We reiterate the message of our testimony and that of several others that the current process is error prone and there are many errors in the data posted to the Secretary of the State’s web site. We believe inaccurate results were certified. The current process makes it very difficult for candidates, parties, and advocates to verify results or search for anomalies. Having this data would provide the opportunity for citizens and candidates the opportunity to audit all this data at no cost to the state or municipalities.

Posting this information on the web is an obvious contribution to open government. Similar motivations and values apply as those motivating the law requiring public meeting announcements and minutes be posted by towns to their webs.

We break the costs of such a facility down to several cost components:

- a. Faxing and imaging. We would recommend outsourcing to a service such as eFax <http://www.eFax.com> which provides incoming fax to emailed images for approximately \$0.10 per page. This would cost the State approximately \$1800 - \$3000 per year depending on the number of elections.
- b. One-time cost of setting up the web to accept the fax images on the web, such that clerical staff could add them to the web organized by municipality and date. We don’t know the exact one-time cost, but it would seem that a system similar to that already employed by the General Assembly for recording testimony from public hearings would suffice. It would be the same web capability currently provided to one state agency to be implemented in a similar way to another agency. Since the state already has this capability it should cost even less to setup than it would cost just one town to meet the current web posting requirements.

Given the current cost of storage, the cost of disk space should be negligible.

- c. Uploading and properly classifying approximately 900 email faxed images to the web after each statewide election. We would estimate that a very conscientious person could easily do one of these in less than five minutes or twelve per hour or 75 person hours.
- d. Reading, keying and checking of data from approximately 900 faxed images. We estimate that an experienced data entry person could do one district and another check it with a total average of 30 minutes work, or 450 person hours for a November Election, while primary elections would be much less work due to the dramatic reduction in races.

We would recommend outsourcing the keying in of the data as it a concentrated effort in a short period two to three times per year. For a November Election we assume the State could contract for such work at \$30-\$40 per hour, resulting in a cost of about \$15,000 - \$25,000 per year. Plus \$3,000- \$5,000 per year if the web classification were outsourced as well.

- e. There are cost savings as well to offset some of the other costs of today's system. Today the Secretary of the State's staff must key in the data submitted on head moderators reports, check that data, and then summarize it to the web. The keying and checking would no longer be necessary, only the summarization. This would free up the Secretary of the State's staff in one of the busiest periods of the year. The Secretary pointed out in her testimony that her staff will be reduced by two next year, so eliminating these extra duties may help the Secretary of the State's Office continue to meet their obligations in spite of the loss of staff.

Once again we reiterate that these are relatively low costs compared to other legislation being considered; and also that we have a system that is not doing the job, that is providing erroneous data to the public, erroneous data for elections and future ballot access, and a system of local storage of Moderator Returns that makes verification by candidates, parties and citizens a challenge. We can have a system which promotes open government and provides an opportunity for greater integrity and confidence in our elections.

We recommend Minnesota as an example of downloadable election statistics by precinct:  
<http://electionresults.sos.state.mn.us/media.asp>

We are not aware of any state that posts the equivalent of Moderator's Reports and tabulator tapes online. However, that is the least of the costs here and provides great confidence, convenience, and a free public audit of the vote reporting process.

We take no position relative to the general advantages or disadvantages of county election management as practiced by most states outside of New England vs. municipal election management. Yet here is a place where, by managing vote totals and publishing Moderators Returns on the web statewide we have an opportunity to take advantage of economies of scale unavailable to other states that manage elections county by county.

## **The Enforceability Issue**

My understanding is that currently only the law is enforceable by the SEEC. My suggested text for HB-6441 has the law, regulations, SOTS procedures, and SOTS directives enforceable.

The current system is not working. The heart of the audit relies on procedures which are not followed and which everyone agrees are not enforceable. The Registrars do not follow them. The Secretary of the State's Office claims they have no recourse. The SEEC agrees. Citizens have no recourse. Directives are needed from time to time to fix problems or unanticipated circumstances. Yet, they do not have to be followed since there is no recourse. Regulations can take longer to issue than changes in the law. We have no assurance that regulations will be initiated or implemented in a timely manner.

Many call for less details in the law and more in regulations and procedures. Yet without enforcement and a responsive regulation process, our best recourse would seem to be changing the law first or reacting in law to inadequate regulations.

The SEEC asks only for authority to enforce regulations and also offers the following alternative:

“If there is an area where the General Assembly intends to delegate authority to the Secretary of the State and in wants her or to prescribe the details of the process and make it enforceable, that can be accomplished with language, for example: The procedure for conducting audits shall be prescribed by the Secretary of the State, and each municipal election official shall comply with the process outlined by the Secretary of the State for conduction audits”

This may well be a workable alternative. Yet, we caution that 1) The Legislature must take care that audit, chain-of-custody, recount/re canvass, or other provisions not specified sufficiently in the law are covered by such clauses and 2) Directives would still remain unenforceable.

A similar clause should cover the Moderator's Manual which determines many aspects of the election including:

- Transport of ballots and tabulators
- Segregation, sealing and storage of ballots and tabulators
- The format of the Moderator's Returns, critical to election reporting and the audits
- Pre-election testing
- Logging and reporting of incidents, seals, testing activities, transport, ballot access, tabulator access, etc.
- Submission of memory card to UConn for testing.

We have similar concerns with the recount/re canvass process. A statewide recount demands statewide standards that are enforceable and enforced.

## **The Definition of Election**

We added the definition for “Election” in an attempt to make the law clearer and less wordy in instances where all types of elections are covered by various clauses in the law. Certainly, as an alternative, each separate section of the law can have its own list

## Concerns with Tiered Audit Tables

Christine Horrigan for the League states “The League does not have the expertise to comment on the percentages contained in Section 8(b) and Section 8(f)”

George Cody for ROVAC states “Section 8(b) deals with audits contains a confusing chart which would determine the number of districts audited, and seems to contradict the 10% mentioned earlier in the same section. . . Before this scale is applied to elections, it needs to be thoroughly explained and understood by legislators”

The Brennan Center for Justice, Common Cause, Verified Voting, The American Statistical Association, and the national League of Women Voters all endorse “risk limiting” audits based on statistics using variables like ‘number of districts in a race’ and ‘officially reported margin’. Statistics can indeed be a difficult subject for lay persons, even for mathematics graduates like myself, it can be a challenge to follow all the details in the many papers covering the mathematical details.

Fortunately, the statisticians have done the work. Their conclusions and recommendations have been reviewed in detail by a variety of individuals in the above mentioned groups. Everyone agrees on the basic principles and general formulas, yet there is some debate about some assumptions and exactly how much “should” be audited and exactly how much risk “should” be tolerated – this is a judgment call. There is no disagreement that the closer the race the more we should count, and the fewer the districts involved the higher percentage of districts need to be audited.

The tiered audit we have specified is a compromise. Using this table will provide much more comprehensive audits than current law, with much less risk that an error or fraud would go undetected. We chose a relatively simple table base approach with just a few tiers, which would keep the counting at approximately the same level as the current law.

Others might recommend auditing more, honing the tables with more steps, or hiring statisticians to make calculations anew after each election. We believe what we have proposed is a reasonable compromise but certainly are open to reasonable alternatives.

We would be pleased to discuss the science, our calculations, our reasoning, and alternatives at any time with any group. We are open to thorough explanations to the legislature. Yet, we caution that it should not be a barrier if the everything is not “thoroughly understood by the legislators”. If such were a prerequisite to passing laws, then we would be putting an impossible burden on individual legislators and on those proposing laws in almost every field (e.g. medicine, the environment and even tax law).

## Additional Comments on SEEC Concerns

1. The SEEC expressed concerns with the timing of the audits and recounts while pointing out that access has to be resolved in a consistent way.

Like the Secretary of the State’s Office we propose earlier audits. National good government groups call for random selection shortly after elections, and the audit counting shortly after the random selection. This is to reduce the time window for manipulation of ballots after the election and before the counting.

Our text in HB-6441 has manual recounts serve in place of audits for contests which are recounted. The text also has recounts take precedence for ballot access over audits when the same ballots are involved.

There are many workable resolutions to these competing demands on ballots. We believe our text is consistent and workable. If there are issues they can be resolved. States resolve such issues in a variety of ways. (e.g. In Minnesota recounts do not begin until two weeks after the election, while audits are completed shortly after the election.)

2. Our 8(e): The SEEC expressed concern with Section 8(e) and recommends the current law:

Our 8(e):

(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 such that a bubble is marked but less than 50% filled in** ~~[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

Our experience is that election officials often classify far too many ballots as questionable because bubbles are not completely filled in or filled in beyond the oval. The scanners count bubbles with very small % filled in, much less than 50%. The SEEC is correct that marks outside the bubble are what may cause the ballot to be counted incorrectly as well as marks inside. Let me propose the following alternative:

(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 such that a bubble is marked but less than 50% filled in or the voters intent is indicated only by marks** 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

This is one of the cases where *perhaps* the law goes too far in detail and perhaps should be left to an enforceable procedure. Even so, 8(e) would still be needed, but could be rewritten to leave the exact definition of questionable votes to specification in a procedure. We would prefer it remain in the law, with our suggested alternative.

3. The SEEC expresses the concern “In some ways, the bill does not go far enough in providing the level of detail necessary with respect to the conduct of the audits. In the absence of a uniform process, they will be conducted in 169 ways”

We agree that is the exact status today as demonstrated by the Coalition observation reports. Worse, many if not most of these multiple ways are inadequate and unreliable. Yet, the questions to resolve by the Legislature is how far to go in law and what to leave to regulations and procedures, and how such procedures would be enforced.

We also point out that this is no more an issue with HB-6441 or HB-6440 than the current law. In fact, HB-6441 would mandate the Secretary of the State create standards for the actual counting that would require two-eyes, blind counting, and observability.

We have similar concerns with the potential for 169, possibly inadequate, versions of recount/re canvass in a congressional or statewide canvass/recount.

4. The SEEC says “A requirement should be put into law mandating segregation of ballots by tabulator.”

The SEEC is correct. We point out, that to our knowledge this has not been a problem. Procedures have been followed for the most part and machine and hand counted ballots have been segregated. Most polling places have only one tabulator in use. The law might be improved in this area. Once again this could be in the law or enforceable procedure such as in the Moderator’s Manual.

5. The SEEC is concerned with the location of Section 3. HB-6441 would change the storage of the Certificate of Check Lists from the machine to the ballot bag. It is a replacement of an existing section. Perhaps there is a reference to this section that needs to be updated in another section of the law or the section moved.

### **Additional Comments on ROVAC Concerns**

In reviewing the written testimony of ROVAC delivered by George Cody, there are several additional issues to address.

1. ROVAC recommends “The Committee and the Legislature defer action on this bill until more time can be taken to evaluate the operational and application of a number changes proposed in this bill to the post election environment”.

We are ready to meet with Committee members, representatives of ROVAC, or State agencies at any time to clarify the issues and explore possible implementation details, alternatives, and implications. The Secretary of the State, SEEC, advocates, citizens, and ROVAC have all called for changes in the audit law. Let us evaluate, yet not delay. It is clear the current law is inadequate and since elections cannot be postponed action should be taken this year.

2. ROVAC also states “We also feel...that this program[the post-election audits] be phased out, since the state is no longer able to pay the related costs”.

The audits should continue because the voters of Connecticut deserve election integrity. Elections and the need to reprogram memory cards and the risk of error and fraud continue. Each election and each district in each election represents a unique opportunity for programming error or fraud and for a machine to malfunction in reading bubbles.

We are sympathetic with the towns that new election equipment was required by the U.S. Congress and that the audits performed in randomly selected individual towns are done for the benefit all the voters of the state. We have always supported legislation requiring the state to cover the cost and have always supported an independent audit board taking over the entire audit. We also suggest that every group and individual consider joining us in supporting national legislation proposed by Representative Rush Holt that would mandate paper ballots, post-election audits nationwide, while federally reimbursing the cost of audits.

We also note that the original audit law passed in 2007 did not require reimbursement of the audits by the Secretary of the State.

3. ROVAC objects to the hand recount.

We believe that recounting by hand is the only reliable way available today to discover programming errors or fraud in memory cards. We note that if the recount process involves a thorough review of ballots then the actual counting of ballots should represent a small portion of the time of a recount.

We have all stood by while the recent, high quality, Minnesota recount was accomplished. In the first two days of the Minnesota recount they counted approximately 40% of the ballots. They could have counted all the ballots in five days. Minnesota does it by county, elapsed time could be even shorter in Connecticut where we do the work by municipality. Observing videos and descriptions of the counting process, it is clear that the review of the ballots was what took the time. The actual counting took a small part of the time and resources. The entire official process took some forty-one days, but the review and counting of the vast majority of ballots represented only the first few days of the process; the hand counting only a small share of that.

We do not support recounting or auditing by machine. The vast majority of computer scientists, voting security experts, and advocates strongly agree. Decisions of this nature should be based on consideration of such expert conclusions.

Perhaps in the future more auditable voting systems will be available or projects like the one in Humboldt, CA will allow automated mechanisms for independent counting applicable to audits and perhaps even recounts.

4. ROVAC points to the UConn memory card testing process and the Secretary of the State's reports statements which express confidence in the election system.

We point to the Coalition reports that show the unreliability and inadequacy of the current post-election audits as conducted. The problem is not just that the data often shows questionable results - it is also that the process and chain-of-custody does not provide confidence in reliability of the data or ballots.

We applaud the UConn memory card testing program. Unfortunately, it is not comprehensive, not random, not uniform, not consistent between elections, and not enforceable. We have called for 100% pre-election testing of memory cards, yet that would not eliminate the need for post-election audits. We know of nothing that would.

We also point out that while the UConn contract is unique, innovative, and useful, it is also dependent on the Secretary of the State and UConn continuing to agree with the contract. The testing process, and under HB-6440, even the post-election audit report would not be required if there was no contract agreement between UConn and the Secretary of the State. The audit report after every election should be a responsibility of the Secretary of the State not dependent on an agreement with a sole source entity.

It is risky to make the execution of the law conditional on a contractual agreement. We note also that the current law provides no deadline for UConn to provide election reports. As of this writing, UConn has yet to complete the report on the November post-election audit, yet the

Secretary of the State in mid December declared that the audits proved the optical scanners were “extremely accurate”<sup>1</sup>. As of this writing we await the November post-election memory card report. As of this writing we await the report on the August Primary post-election audit.

5. ROVAC points out that “This selection would also remove Town Clerks from the selection process as to which office would be audited in a selected district. This selection would be done by the SOTS staff, who would have to familiarize themselves with each ballot.”

There are two points to address here. Why did we propose removing this responsibility and burden from the Town Clerks? And what is required of the Secretary of the State?

We proposed removing the race selection from the Town Clerks for several reasons:

- The current process is not announced and open to the public. All parts of the audit should be open to the public. Even if it were to be open to the public it would be difficult for the public to be represented and observe the many selection events in addition to the counting events. As we have stated previously, we believe the audits are conducted for the benefit of all citizens of Connecticut not just the specific towns. Central selection in publicly announced and open process would avoid these problems.
- Several Town Clerks have misinterpreted the process in the past and have not selected the appropriate number of races to audit. Central selection would avoid such problems.
- As ROVAC points out some aspects of the proposed selection process would be challenging for many to understand. Central selection would avoid the challenges of distributing this responsibility to the individual Town Clerks. Perhaps the Town Clerks would appreciate this.
- The proposed audit selection provides Connecticut with the efficient statistics based audits available to other states with county election management. Instead of county random selection of races and districts based on statistics, we propose statewide selection. We don’t know of a local selection alternative that would support efficient statistics based audits.

Requirements of the random selection on the Secretary of the State’s Office:

- We have proposed informally to the Secretary of the State’s Office, both automated and manual methods to accomplish the selection process. We are willing at any time to discuss these methods and demonstrate their feasibility, costs, and implementation.
- Automated methods of selection would reduce the time and increase the randomness of the current process, while accomplishing the race and district selection with less time and labor than the methods used to select districts today.

The Secretary of the State’s Office has reasonably pointed out the public might be skeptical of an automated process. We point out that some of the same computer scientists and security experts who documented the risks of our optical scanners have developed and peer reviewed the integrity and the public verification capabilities of the automated mechanisms we propose for random selection.

- We are fully prepared to propose completely manual methods of random selection that meet the requirements of this law. We estimate that such methods would approximately double the effort required of the Secretary of the State’s Office over the requirements of the current

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<sup>1</sup> [http://www.ct.gov/sots/lib/sots/releases/2008/12.12.09\\_audit\\_results\\_show\\_accurate\\_election\\_day\\_machine\\_counts.pdf](http://www.ct.gov/sots/lib/sots/releases/2008/12.12.09_audit_results_show_accurate_election_day_machine_counts.pdf)

manual drawing of districts. A few hours additional effort would provide for the tiered audit that is much more effective. It would also make more efficient use of election officials' time across the state, and save Town Clerks time in each town selected.

- We disagree with ROVAC's assumption that "the SOTS staff, who would have to familiarize themselves with each ballot". We can propose mechanisms that do not require this at all. However, as our first alternative we would propose making use of the database sent to UConn before each election which has a description of every ballot. That could be used to create a list of all races in each district in the state which could be used to create the selection list of races for either automated or manual race selection.