Thank you for the opportunity to testify. The Legislature has asked the State Board of Elections to do what the experts say is impossible: to test and certify a software-based voting system to high levels of security and reliability\(^1,2\) and to dismantle a transparent system and replace it with a concealed one and somehow make the concealed system transparent. The SBOE is trying their best but some troubling questions have been raised. Here are a few examples:

1. The undervote rate reported for the lever voting system in Chautauqua County in the 2008 general election was grossly overstated and \textit{not corrected} after the error was brought to the attention of the SBOE. For Dunkirk City, Ward 2, E.D. 4, about 800 \textit{phantom votes} had been added to a candidate’s tally in the State Senate race. We know this result is impossible because this election district had only 563 \textit{registered voters}:

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
\textbf{COUNTY} & \textbf{ELECTION DIST} & \textbf{STATUS} & \textbf{TOTAL} \\
\hline
Chautauqua & Dunkirk City 002004 & Active & 518 \\
Chautauqua & Dunkirk City 002004 & Inactive & 45 \\
Chautauqua & Dunkirk City 002004 & Total & 563 \\
\hline
\end{tabular}
\end{table}

This impossibly high vote tally of 1139 votes in the State Senate race was then applied to the Presidential race using the \textit{reporting software} on the county’s website:

\cite{1}

In 2006, computer security experts at the National Institute of Standards and Technology (NIST) advised the US Election Assistance Commission that “[E]xperience in testing software and systems has shown that testing to high degrees of security and reliability is from a practical perspective \textit{not possible}.” (emphasis added) See: http://vote.nist.gov/DraftWhitePaperOnSIinVVSG2007-20061120.pdf, Page 10.

\cite{2}

Avi Rubin, PhD, Professor of computer science at Johns Hopkins University, August 7, 2007: “[Y]ou cannot certify an electronic voting machine the way you certify a lever machine. Once the voting machine goes through a lengthy and expensive certification process, any change to the software requires that it be certified all over again. What if a vulnerability is discovered a week before an election? What about a month before the election, or a week after it passes certification? … [W]e absolutely expect that vulnerabilities will be discovered all the time … even if the vendors had a clue about security. See: http://avi-rubin.blogspot.com/2007/08/secretary-bowens-clever-insight.html

\cite{3}

http://www.elections.state.ny.us/nysboe/Enrollment/election%20district/2008/November/ChautauquaED_Nov08.pdf
The phantom votes had no effect on the outcome of the State Senate election, which was a landslide, but the inflated vote tally was used to calculate the *undervote rate in the Presidential election* for the entire county and State. This fraudulently *quadrupled* the apparent number of reported undervotes in Chautauqua compared to the 2004 election, and accounted for nearly 60% of the county’s total of undervotes in 2008. This one election district accounts for about 3% of the increase in the statewide undervote from 2004 to 2008.

Activists brought this error and misreporting to the attention of the SBOE as early as Feb. 2009, but neither the SBOE nor the County Board of Elections corrected the error or reported it to the public.

I found out about this falsely reported election result via the Internet in Apr. 2009 due to advocacy groups that used it to show the supposedly “high” rate of lever voting machine problems.

The true nature of this problem was revealed by inspection of the above ED-level reports that showed this undervote rate was *not possible* because there were more undervotes reported than registered voters in the election district.

How do we know that similar jiggering of these numbers did not occur elsewhere in the state to deliberately overstate problems with the lever voting system statewide? It would take less than one ED per county to substantially alter the statewide undervote total, as occurred in Chautauqua. The Election Law Section 9-208 recanvass procedure should have detected and corrected this error by using the *public counter of the lever machine* to correctly calculate the undervote rate in the Presidential race that was incorrectly reported by the software -- but the error was allowed to persist.

Failure to correct an *impossible* result such as this, even after it was brought to everyone’s attention, casts a shadow on our need to trust election officials to manage and audit computerized voting systems. This small example gives the impression of county and state officials, and possibly vendors, manufacturing data to support an unpopular decision or program, in this case, the replacement of lever voting machines.

There is precedent for such manipulation of election results: as Dan Rather reported in Aug. 2007, whistleblowers who worked for Sequoia Voting Systems alleged that *substandard paper*
ballots were deliberately produced to cause excessive undervotes in the 2000 Presidential Election in Florida.5

New York’s replacement system, consisting of mostly un-audited computers, could be exploited in ways that would never be detected using current laws, regulations and procedures. Unless there are some changes, or we keep the lever machines, we will have to trust the software and those with access to it to report our election results. As the Chautauqua County report shows, trust is no substitute for oversight.

2. Section 301(a)(5) of HAVA is the accuracy requirement for e-vote counting systems used in Federal elections such as the one we just had in CD-23. Before the SBOE certifies the new scanners, will the SBOE determine if they met the error rate requirement of the Federal statute in all counties where they were used in our 2009 primary and general election? If the scanners don't meet this accuracy requirement, will the SBOE certify them anyway? How will the SBOE determine if the scanners meet this requirement?

3. There are press reports of optical scanner failures in CD-23. The Federal and NYS Reliability standard for electronic voting systems allows no more than 9.2% of such systems to fail in any 15-hour period. While this standard is far too lax, will our SBOE certify the machines if the failure rate in CD-23 was higher than the Federal and State standards allow? How will the SBOE make this determination?

4. Why were the election results in the CD-23 counties delayed for so long? Election Law section 9-100 requires the tallies at the polls to be ascertained (made certain) before the inspectors may adjourn. When a scanner fails, how and when will the paper ballots be counted?

5. Experts have said that hand counting enough paper ballots to confirm who won each contest is the only way to know the true outcome when computers are used to count votes. For well over two years, such experts and advocates have been urging the SBOE to write appropriate regulations to do so.6 But the SBOE has gone on the record in the State Register rejecting this advice and citing our inadequate Election Law, Section 9-211, that only requires an audit of 3% of machines or systems no matter how close a contest may be.

It's time to write a new election law so there will no longer be any excuses.

5 See: Dan Rather Reports: "The Trouble with Touch Screens" (and more) Transcript available at: http://www.election-reform.org/dan_rather.html#bad_paper (HTML) and at: http://www.hd.net/cgi-perl/transcripts_send_word_doc.pl?id=A4755 (PDF, Pages 17-29)