



# New Yorkers for Verified Voting

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## **LEVERAGE AGAINST LEVERS: WHY NEW YORK SHOULD NOT KEEP THE LEVER VOTING MACHINES**

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In early 2008, when election integrity advocates had succeeded in blocking the last efforts to make New York the “DRE state” that had been predicted, the work ahead seemed clear: now that direct-recording electronic voting machines were not a threat to election integrity, New York needed to guarantee careful implementation of the paper ballot scanning systems that most counties had chosen when they chose the ballot markers mandated by a federal court order. Now, however, energy is being deflected from that task by a belated movement to try to keep the lever voting machines permanently.<sup>1</sup>

This article aims to provide “leverage against levers” by summarizing some arguments against this movement. Though lever voting machines may have served adequately in the past, it is clear that they do not meet the standards citizens have learned to hold for a verifiable, auditable, and accessible voting system.

The most important argument for any voting system is that it protects democracy. First, therefore, we will take up the claims to democratic values on behalf, first, of the paper ballot-scanner system, and, second, of the lever voting system. Later we will answer some of the legal, historical, economic, and practical arguments offered by those who think New York should keep the lever machines.

### **I. VOTING MACHINES AND DEMOCRATIC VALUES**

#### **A. THE PAPER BALLOT- BALLOT MARKER- BALLOT SCANNER SYSTEM PROTECTS DEMOCRATIC VALUES**

To best serve democratic societies, voting equipment needs to guarantee, to the greatest extent possible, that each citizen’s vote is counted as intended. No voting system is perfect, but certain basic principles can be set forth:

- A voting system should be based on a secret voter-marked paper ballot that is the official record of the voter’s intent and allows the voter to verify this ballot while still in the process of voting.
- A voting system should carefully protect these paper records so that verification of vote totals by an independent hand count of the paper record is possible-- and so that there can be routine audits in every election.

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<sup>1</sup> The recent movement for keeping the lever voting machines in New York has gained attention largely through articles published on the internet, in blogs and on-line news sheets. Having written to rebut some of these articles in July 2008 (See my, “Eyes Wide Open: The Real Situation in New York,” <http://www.nyvv.org/newdoc/2008/EyesWideOpen.htm>; also <http://www.opednews.com/articles/Eyes-Wide-Open--The-Real-S-by-Wanda-Warren-Berry-080716-464.html>), here I focus on more recent articles.

- A voting system should provide equal access, to the highest extent possible, for persons with special needs.

These principles point toward the following criteria for a democratic voting system: *transparency* (as indicated by making a visible paper ballot the official record), *voter-verifiability*, *auditability*, *accessibility*, and *privacy*. The paper ballot-scanner system meets these criteria.

These criteria have been incorporated in New York's Election Reform and Modernization Act, though it is clear some provisions in the law need strengthening (e.g., the provision for audits). If somehow New York kept the lever machines, not only would the law calling for lever-replacement need to be rescinded; regulations requiring both voter verified paper records and audits also would need to be dismantled.

In addition, the current draft of the "Voter Confidence and Increased Accessibility Act of 2009," sponsored by Congressman Rush Holt, proposes "to amend the Help America Vote Act of 2002 to require a voter-verified permanent paper ballot." If this kind of federal legislation is passed, New York's lever machines again would be considered out of compliance with federal law.<sup>2</sup>

## **B. DEMOCRATIC VALUES ARE CLAIMED BY THE ADVOCATES FOR LEVER MACHINES THAT THE MACHINES DO NOT REALLY SUPPORT**

**Claim: Transparency.** The lever advocates agree on the high priority of transparency in a voting system. They claim that lever voting machines provide a better vehicle for democratic elections than paper ballot-ballot marker-optical scan equipment (PB-BM-OS) because the machines are "transparent."<sup>3</sup> They claim that all of the workings of the lever machines are apparent when the back is opened. They assert that patent documents show the precise construction of the machines. They claim that the voter can see that the intended vote is registered when moving the small lever on the front of the machine down.

**The Truth: The Lever Machines are NOT Transparent.** While the lever voting machine is an interesting device for adding up votes in multiple races, it is not "transparent" to the voter. The voter cannot see and judge the patent. The voter has no guarantee when he/she moves the small lever down and, later, opens the curtain by swinging the large lever across, that the intended votes are incremented in the totals. The voter cannot see the counters turning inside the machine. Many voters will have heard of occasions when a machine failed, even after pre-election testing;<sup>4</sup> so they do not find the machines "transparent." In pre-election testing, party representatives sometimes test a combination of levers and then need to tell the machine custodian that something is wrong. The custodian then adjusts the machine. Apparently the problem was not "transparent" to the custodian upon looking at the back of the machines.

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<sup>2</sup> A discussion draft of the "Voter Confidence and Increased Accessibility Ave of 2009" was made available on January 31, 2009.

<sup>3</sup> Andi Novick, The Last Transparent Democratic Electoral System in the United States of American Cannot Be Allowed to Perish," January 30 2009, <http://www.opednews.com/articles/The-Last-Transparent-Democr-by-andi-novick-090130-838.htm>

<sup>4</sup> William Edelstein, "New York State Law and Lever Voting Machines," <http://www.nyvv.org/doc/NYSLeverMachines.pdf>

Neither is the machine “transparent” to election inspectors. They can observe the external counters for the total number of voters, but they do not see the inner counting of individual votes. At the end of the day, depending on the particular model, they either read the totals off the counters on the back of the machine after the doors are unlocked or they tear off a large sheet of pressure-sensitive paper so that faint imprints of totals on the counters can be read. In neither case can they see individual votes, since there simply are no records of these.

**Claim: Immutability.** The advocates for the levers also claim that the lever machines are “immutable,” that is, unchanging.

**The Truth: EVERY machine is mutable.** The fact that the lever machines are adjusted during programming and pre-election testing and, like all machines, have breakdowns, makes the claim to immutability patently absurd. The anxiety over the admittedly mutable software involved in scanners leads lever advocates to take no account of the fact that in the paper ballot-scanner system votes actually are recorded on paper ballots that are retained in the locked ballot box. The scanner does not record votes, but only counts them. There are publicly observable pre-election tests through which each scanner is to be tested.

**Claim: Security:** The attempt to keep the lever machines also is motivated by concern for the security of elections. Lever advocates worry more about fraudulent or accidental mistakes in programming of scanner software than about voter-verifiability and true auditability as ways toward accuracy and security. They downplay the fact that lever machines also can be wrongly programmed. Of course, all election equipment, for either system, must be kept secure.

**The Truth:** Advocates for the paper ballot-scanner system recognize **security and accuracy** as values in a democratic voting system along with **transparency, voter-verifiability, privacy, auditability, and accessibility**. The foundation of the paper ballot-scanner system is the voter-marked paper ballot as the permanent official record. Therefore these values are secured when:

- Voters are taught how to mark and verify their ballots, checking for accuracy.
- The state and counties mandate the strongest possible regulations to protect the security of all equipment, including ballots, both before and after elections.
- The state certifies precinct-based ballot scanners only after the most stringent tests possible.
- The state insists upon publicly observed pre-election testing and post-election audits of the scanners.

*In addition:*

- The fact that New York counties are purchasing scanners that retain images of the ballots is another check on the security of the ballots and should be a deterrent to fraud.
- The fact that the voter-marked paper ballots can be hand-counted as well as checked by an independently programmed scanner is another deterrent to fraud.

**Conclusion, Part I.** Lever machines are less effective than the paper ballot scanner system in securing democracy. They are not “transparent”; nor do they provide voter verifiability and auditability. Used with the completely separate ballot marking devices for accessibility, the lever system jeopardizes privacy, as will be discussed later. Lever machines cannot be proven

accurate, since they provide no record of individual votes to allow auditing the machine. They rely for security on the same kinds of measures as must be deployed with other voting systems.

## II. OTHER CLAIMS BY ADVOCATES FOR LEVER MACHINES

### A. THE MISTAKEN CLAIM THAT LEVERS FULLY COMPLY WITH HAVA.

A number of the legal claims made by the “keep the levers” movement were answered in my earlier article cited in the first footnote. At this point, however, we should pursue their principal legal claim: that the Help America Vote Act of 2002 (HAVA) does not require replacement of lever machines.

HAVA interpretation has become very controversial. The proof text used again and again by those who want to retain lever machines is a parenthesis in Title III, Sec. 301(a) which introduces a delineation of requirements for voting systems in federal elections. The controversial phrase is: “...the voting system (including any lever voting system, optical scanning voting system, or direct recording electronic system) shall...” From this mention of lever machines along with two other systems, the section goes on to delineate several requirements that must have been seen from the beginning as contradicted by use of lever voting machines. Many interpreters, therefore, assumed the mention of levers was an accident. Especially important to examine are the requirements of auditability and accessibility.

### **Illusory compliance? Do lever machines comply with HAVA by providing voter-verification?**

In section 301(a), HAVA says that a voting system “shall...permit the voter to verify (in a private and independent manner) the votes selected by the voter before the ballot is cast and counted.” It can be argued that the visibility of the small levers means that when the levers are properly set up this requirement is met. However, as we said above in the critique of the claim to transparency, the voter sees only the positioning of the levers and cannot verify that the vote is recorded in the unseen counters of the machine. There are known cases when the lever machine has been wrongly set up and voters have used it all day without knowing that their votes were not being counted as intended. That the machine was not counting in some races is revealed only when the back of the machine is unlocked at the end of Election Day. If the machine has miscounted, e.g., by stalling at a number ending in 99, there is no way to know that with certainty. So lever machines can give the illusion of verifiability, without the reality of seeing one’s vote actually recorded.

### **Mistaken Sub-claim: Lever machines comply with HAVA by providing Auditability**

The call for “Manual audit capacity” further on in section 301 has been understood as rendering lever machines unacceptable under HAVA, at least by those who use the normal meaning of “manual audit capacity” rather than the truncated meaning employed by lever advocates. Advocates for retention of the lever machines do not deny that HAVA requires audits of paper records. They claim compliance by defining an audit as simply a review of the totals on the back of the machines and adding again the results from all machines. They argue that the paper record of the totals created when the election workers copy the totals from the back of paperless lever machines constitutes a “tally” sheet comparable to that developed in hand-counting paper ballots.

**The Truth:** While advocates claim lever machines are auditable, they do so only by a specious re-definition of “audit,” as looking again at the totals. In normal usage, an “audit” looks again at the individual items that accumulated to arrive at that total as a way of checking the machine’s accuracy. Therefore, the definitions of “audit” and of “tally” used by lever advocates are disingenuous, since in both a true audit and in a hand-counted tally individual ballots have been counted, whereas lever machines preserve no record of individual votes.

**Mistaken Sub-claim: Lever systems comply with HAVA by providing Accessibility**

If we remember that, at the point when HAVA was being written and first interpreted, ballot marking devices (BMDs) for persons with disabilities had not yet been developed, it becomes quite clear why so many believed from the beginning that lever voting machines could not comply with HAVA. Ballot markers were invented to support paper ballot based voting systems and came on the market only in 2004- 2005. In 2008, advocates for keeping the levers began to claim accessibility because the counties already had purchased, under court order, at least one ballot marking device (BMD) per polling place. Lever advocates claim that HAVA’s requirement for accessible voting is fulfilled in this way.

**The Truth:** **The lever machine itself remains inaccessible and it causes problems for equal access to a voting system.** When levers are the principal voting system, the paper ballots from the Ballot Marking Devices (BMDs) are in no way integrated into that system. They must be counted by hand, posing a threat to the secrecy of the ballot in pollsites where few people use the ballot markers. In a fully operative paper ballot- ballot marker- ballot scanner system, the BMD ballots are submitted to the same scanner as all other ballots and poll workers need to be trained only on one integrated system. This integrated training promises future improvement of the management of the BMDs and privacy for the ballots of persons with special needs.

**CONCLUSION: LEVER MACHINES DO NOT COMPLY WITH STANDARDS FOR TRUE VERIFIABILITY, TRUE ACCESSIBILITY, AND TRUE AUDITABILITY AS DEVELOPED TO CLARIFY HAVA**

As this country has tried to interpret HAVA during that past decade, a consensus about standards for voter verifiability, accessibility, and auditability has emerged. These standards can be seen as incipiently present in HAVA, but not completely articulated there. The consensus is seen in the standards summarized in the introduction to the "Report on Election Auditing" from the Election Audits Task Force of the League of Women Voters of the United States (January 2009 <http://www.verifiedvotingfoundation.org/article.php?id=6677>). These standards parallel the principles listed in I.A. of the present article. They also compare favorably with the basic approach of the Draft “Voter Confidence and Increased Accessibility Act of 2009” presented for discussion by Congressman Rush Holt and noted above.

**B. LEVERAGING HISTORICAL CLAIMS**

In some writings, in order to support her promised lawsuit against the government, Andi Novick spent a great deal of space reporting on historical research into the history of New York’s election law. Much of that effort aimed to invalidate any vote counting practices (e.g., re-counts, audits) that could not be completed on election night. Inasmuch as New York currently counts

absentee ballots at least a week later – and probably will have more absentee ballots in the future – this argument lacks relevance. Many of the other historical practices Novick praises will be continued with the paper ballot-scanner system (e.g., an electoral process “performed by public election officials following explicitly prescribed duties”).<sup>5</sup>

Similarly off-point is Teresa Hommel’s claim that the 2006 League of Women Voters criteria for voting systems, used in a recent joint statement from New Yorkers for Verified Voting and the NY State League of Women Voters,<sup>6</sup> were intended to apply only to electronic machines, not to mechanical machines like levers.<sup>7</sup> Inasmuch as the national League of Women Voters used the same criteria in its “Report on Election Auditing” in January 2009, Hommel’s historical objection is irrelevant, especially since the criteria were used to express a growing consensus rather than a historical claim.

More serious are the mistaken historical claims in Novick’s “The EAC Lied, Lever Machines (Almost) Died.”<sup>8</sup> Novick here argues that a critical influence on the development of New York’s legislation that calls for replacement of lever machines was the Election Assistance Commission (EAC) “Advisory 2005-005: Lever Voting Machines and HAVA Section 301(a)”.<sup>9</sup> This claim to historical influence is quickly shown to be erroneous in that the NY State Legislature adopted its Election Reform and Modernization Act during June 2005 and the EAC Advisory was published on September 8, 2005.

Novick seems to be led to this mistaken claim by an interest in claiming common cause with those election integrity advocates who are unhappy with the federal Election Assistance Commission (EAC). She goes to great lengths to frame the EAC’s Advisory with the August 30, 2005 letter from the Chief Counsel for the State of Pennsylvania to the EAC that asked for the EAC’s “Opinion/Advice” about the status of lever voting machines under HAVA Section 301. Again, note that this letter was sent to the EAC well after New York’s legislation called for replacement of the levers. The Pennsylvania letter traces the state’s assumption that HAVA required replacement of the lever machines back as early as June 2003, more than two years prior to the EAC Advisory.<sup>10</sup> In the light of some counties’ resistance to DREs, Pennsylvania in August 2005, seeking to meet the 2006 deadline for HAVA compliance, asks for clarification of HAVA.

The Pennsylvania letter to the EAC reveals characteristic developments in states trying to interpret HAVA in the early years after its 2002 adoption. Objective examination of the EAC Advisory as well as the letter from Pennsylvania’s chief counsel shows that Novick is not

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<sup>5</sup> See p. 2 of Novick, “The Last Transparent Democratic Electoral System,,,,” note 3 above.

<sup>6</sup> See “Does a Lever Machine Provide a Better Voting System for Democracy,” [http://www.nyvv.org/newdoc/2009/LWVNYVV\\_LeverStatement020909.pdf](http://www.nyvv.org/newdoc/2009/LWVNYVV_LeverStatement020909.pdf)

<sup>7</sup> Teresa Hommel, “LWVUS Voting system Standards were never intended to apply to lever voting machines,” [http://www.wheresthepaper.org/rebut\\_NYVV\\_LWVNYS\\_Feb12\\_09.htm](http://www.wheresthepaper.org/rebut_NYVV_LWVNYS_Feb12_09.htm)

<sup>8</sup> Andi Novick, “The EAC Lied, Lever Machines (Almost) Died,” March 2, 2009. <http://www.bradblog.com/?p+6956>

<sup>9</sup> While Novick claims in this recent article that the EAC Advisory is “newly-unearthed,” I had referred to the wide-circulation of the EAC Advisory not only in my July 2008 article cited in the first footnote, but also in discussions immediately following issuance of the Department of Justice’s “Memorandum in Support of United States Motion to Enforce the June 2, 2006 Remedial Order” in the Department of Justice case against NY.

<sup>10</sup> The letter does not warrant the suspicion of conspiracy that Novick implies when she says, “Pennsylvania...was intent on using its HAVA monies to buy shiny new DREs and needed the EAC’s blessing” (p. 3).

justified in interpreting those documents as having no genuine concern for election integrity and no merit. For example, the EAC Advisory's definition of an audit is worth careful consideration as experts currently try to refine audit theory.

**C. LEVERAGING ECONOMIC CLAIMS:** The current campaign to keep the lever machines is trying to appeal to economic anxiety over the current financial crisis in the state and the nation. Teresa Hommel argues that "The higher cost of computerized elections will force elections to compete against other essential services for money that we don't have."<sup>11</sup> She goes on to claim that we "won't—have the money to convert to computerized equipment properly or use it properly" and "This is not the time to switch to more expensive elections."

**Toward a More Constructive Response to Economic Crisis.** Yes, we acknowledge that implementing HAVA is an expensive project for the state and the counties and that it is unfortunate New York compliance with HAVA comes during these hard times. But recent good news is that Congress amended HAVA to extend the deadline for using the federal funds to replace lever machines to November 2010. New York should seek additional federal relief for costs that have escalated as compliance has been deferred.

Some of the charges from the vendors are exorbitant and the state should protest these. The vendors claim that they aim to serve democracy; but exorbitant, on-going software licensing fees, without which the already purchased machines cannot be used, contradict that claim.

Much of the required money for implementing the paper ballot-ballot marker-scanner system has already been spent. Most counties already used HAVA funds to buy BMDs that are tethered to scanners, paying much more than they would have paid for BMDs alone. Counties need to pay software licensing fees even if only the BMDs are used. Both the state and the counties already have invested deeply in preparing training materials as well as implementing training for election workers using the new equipment. The "keep the levers" proposal to continue to deploy both lever machines and the ballot markers purchased by most counties is costly to counties. Some of them already are petitioning to go ahead to full use of the new equipment in order to save this cost.

In addition, counties have not been ordering needed additional or new lever machines, since they expected the change to new equipment. Some new machines would have to be purchased if levers were retained.

The "keep the levers" movement asks us to reverse progress toward election integrity in our state law. It asks us to reverse the whole direction of work in Boards of Elections. New York will have to return much of the HAVA funds if it does not replace the levers.

In addition, it seems highly likely that eventually federal law will amend HAVA to make more explicit the requirement for a voter-verified paper record that can be re-counted and/or audited. At that point federal law will catch up with New York State election law in clarifying the intent of HAVA.

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<sup>11</sup> Teresa Hommel, "Why Keep the Lever Voting Machines?", February 15, 2009. <http://www.wheresthepaper.org/WhyKeepLeverVotingMachines.htm> .

Elections are an essential function for democracy. We must ask the federal government and the state to designate funds to enable careful implementation of the new, democratic, voting system.

**D. LEVERAGING PRACTICAL CLAIMS:** Lever advocates like Teresa Hommel claim the lever machines are more practical and easy to manage than the paper ballot-scanner system.

**The Truth: Three Systems Instead of One is NOT Practical.** Under the proposal to retain the lever machines, counties would need to maintain and prepare three different systems for each election: the levers, the completely different technology of the ballot marking devices, and paper ballots for provisional, military, and absentee use. Under a full paper ballot-scanner system the same ballots are used for all voters and the system is integrated. This will enable the state and county to prepare unified instructions for voters and for poll workers. It will enable the development of real expertise in running good elections.

### **CONCLUSION: IT IS TIME TO MOVE ON**

This article has tried to offer “leverage” against some of the more important claims made by those who want to retain the lever machines; we do this because New Yorkers need to move beyond the lever advocates’ belated attempt to radically change the state’s direction.

Much work needs to be done to follow through adequately on the direction chosen by the counties last year. We need to ensure adequate operating procedures for using the new equipment. We need to challenge costs levied by the vendors. We need to try to convince the government to allow HAVA funds to help with software costs. We need to research and develop legislation for more adequate audit procedures, working to get the state legislature to adopt changes. All of this work needs to be done this year, when a major general election does not loom over us.

Groups like New Yorkers for Verified Voting and the New York State League of Women Voters stand ready to work with the state and the counties to ensure election integrity through careful implementation of the paper ballot-ballot marker-optical scanner voting system, a system which can provide the transparency, voter-verifiability, privacy, accessibility, auditability, security, and accuracy we have a right to expect in a voting system. In addition, a secondary value is that use of properly tested scanners enables us to meet modern society’s hope for a preliminary count on election night.

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