

# MACHINES THAT VOTE

Back in 2001 The Palm Beach Post (Fl.) examined used ballots from Palm Beach County and concluded that the county's "butterfly ballots" cost Albert Arnold Gore Jr. the presidential election. The newspaper's review of the overvotes found 5,330 Palm Beach County residents invalidated their ballots by punching chads for Gore and Reform Party candidate Pat Buchanan. The hole voters punched for Buchanan was located just above Gore's on the two-page ballot.

The ballots showed another 2,908 voters punched Gore and Socialist David McReynolds, whose hole appeared just below Gore's. Buchanan and McReynolds' names appeared on the right page of the ballot, while Gore's was on the left.

The American people were outraged and something had to be done. When the American people were outraged about Saudi terrorists, the federal government responded by attacking Iraq. In this case the problem seems to have been the format of the ballot in Palm Beach, and the federal government responded by advocating and funding the replacement of most of the voting machines in the country. The law which was passed was called HAVA or The Help America Vote Act which is a federal law sign by president Bush on October 29 2002 exactly 73 years to the day after the stock market crash that inaugurated the great depression. The law is primarily aimed at establishing a program to fund states to ensure that "all of the punch card voting systems or lever voting systems in the qualifying precincts within that State have been replaced in time for the regularly scheduled general election for Federal office to be held in November 2004"

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What would replace the venerable old voting machines? The law wasn't so specific. So what followed was a process in which machines were quickly invented to fill the need that may have been created by the law. Here in New York State you may have noticed that you voted on a lever machine after 2004 and you'd be correct. You know how there are some people who have to have the latest thing, an iphone, Windows Vista, Mac's Leopard, the McRib sandwich, the new Coke, and you know how it often turns out that the product had some bugs, or it just sucked and the price came down later anyway. Well some states acted like that and used their federal money to buy machines from happy salespeople right away. But the State Board of elections in New York State took a different approach. They didn't spend the money, they just waited. While other states were having problems with their new machines New York was still voting on the old ones. Until a federal judge insisted the New York State replace the lever machines. Or else. Or else what? Nobody has been able to tell me exactly but the way I read it in HAVA, New York would have to forfeit the Federal money that it hasn't spent. Last month the State Board of elections moved and voted to approve for purchase by the counties three voting machines, actually Ballot marking devices to aid the disabled mark a paper ballot. It remains to be seen what machines if any will be chosen for the able bodied voter in New York State.



A SALESMAN AND HIS DRE

Here are the ways that New York could choose to vote in the future and what people think of them:

DRE machines (Direct-recording Electronic) although none of the machine approved by the state board were of this type they are being used widely could be chosen for New York State in the future. This type of machine has been compared to a black box. You tell it how you want to vote and then it translates your vote in to a few different codes and then produces a total. For a few reasons you are not allowed to see what really goes on in the brain of the machine as it calculates your vote. Even if you were able to look inside you wouldn't know what you were looking at unless you were on the team that built it. Further more the instructions on the electronic chips in the machine are secret so you just have to trust that it was made perfectly with no flaw and that nobody sabotaged it and that no unforeseen circumstance will cause it to make an error. These machines are tested extensively by the state board of elections, but all computers are extensively tested and anybody that uses one knows that all the testing in the world doesn't make them very reliable. Oh didn't I mention that they all use windows software? So who likes these machines? Well Not that many people. The manufacturers like them because they are expensive and have to be bought in large quantity since only one voter at a time can use one machine. They are also a favorite of the manufacturing companies because since malfunctions leave no evidence. The state Board of elections seemed to be split on this issue but has not approved any machines of this type for the handicapped. By the way don't be confused by people who say: "I advocate a paper trail." That really indicates a lack of knowledge on the subject. Almost all the machines including the DRE's leave a paper trail now, but the paper trail from the DRE may not reflect how the vote was recorded in memory, and its harder to read than a ballot, making it unlikely that voters will stop the process with a line behind them to question it.

#### LOCAL LAW #1 of 2008

Ulster County Legislator Gary Bischoff who is an electrical engineer with a masters degree in computer science from Columbia University is so concerned about this type of machine (the DRE) that he has proposed a law to ban them from Ulster County. He is not alone in his determination that they are not reliable and many states and voters feel the same way. In between advocating for his constituency Legislator Bischoff can be found in his shop surrounded by electrical components parts, and osiliscopes, where he creates devices to calibrate x-ray machines. Talking to him is a pleasure and he is clearly an expert on the subject of voting protocols, DRE's and the law. Legislator Bischoff's proposed law is called "Local Law 1 of 2008" and is very short and simple, it states: "Any voting technology to be used in Ulster County for local, state, and federal elections must provide a paper record that is the actual paper (a) manually marked by the voter and (b) in the case of voters with disabilities, marked by a marking device"



ULSTER COUNTY LEGISLATOR AND ELECTRONICS ENGINEER GARY BISCHOFF WHO HOLDS A MASTERS IN COMPUTER SCIENCE FROM COLUMBIA UNIVERSITY AND DOESN'T WANT DRE'S IN HIS COUNTY

Requiring paper ballots mean that there's a piece of paper for each voter, but those paper ballots can be counted in two ways, by machine (usually an optical scanner) and by people.

## OPTICAL SCANNERS

If machines count ballots the most likely candidate right now is the optical scanner. The optical scanner is not as profitable for the manufacturer since only one per voting place is needed. Voters would fill out their ballots at a table with privacy walls and then bring it to the one scanner, which would suck the ballot through at high speed, take an electronic picture of each ballot and then decide the voter's intent by electronically examining the picture they have of the ballot in memory. That's not as easy as it sounds. Did that sound easy? Actually ballots usually have little circles or squares next to names, which the voter is supposed to check or mark or fill in. Now just like



THE STATE BOARD SPEAKS AT THE HOLIDAY INN AT SARATOGA SPRINGS NY

a coloring book you can't draw outside the line and you can't mark two candidates for the same job (that's an "Overvote"), well sometimes you can but that's too complicated to explain right now.

HEY, be careful you left a mark down there when you looked up.. NOOO.. You have to choose one from column a and two from column b! HEY you forgot to vote for the dogcatcher, did you do that on purpose? Here, try again. By the way that's called an "undervote." And wait! That's a 10% shading in that box; it has to be 15% or more. Did you doodle on the edge or use the wrong pencil. Disqualified! Intimidating? Don't puke yet. Well you can imagine how many problems people, old and young can run into when filling out a form that will be read by a machine. And you'd be surprised how nervous people get at the poles and how many ballots have "irregularities". Anyway besides all of that, the optical scanners are computers, prone to the same errors and sabotage as the DREs, and just as impossible to examine for flaws accidental or purposeful. In fact they are made by the same people who make DRE's so badly, and use Microsoft software, and have been found to be flawed, just like Microsoft Windows Vista. In fact close races or disputed races may well have to be re-counted, by hand. For better accuracy. Did I just say hand counted for better accuracy? Well that brings us to the other method of counting paper ballots: by hand with humans, politicians, and Lawyers.

## THE HAND COUNT

Hand marked, hand counted. It's a very traditional way of voting which has been practiced for ages and is still done in many countries and some states. And remember all those "ballot irregularities" well now they can be better interpreted by people. The idea is that the people can better interpret the will of the individual voter. He marked outside the box but it was much closer to, and started in box A, for instance. He/she made a mark in the corner but that looks like he dropped the pencil and he/she already made a clear dark vote elsewhere for Tax Acessor.

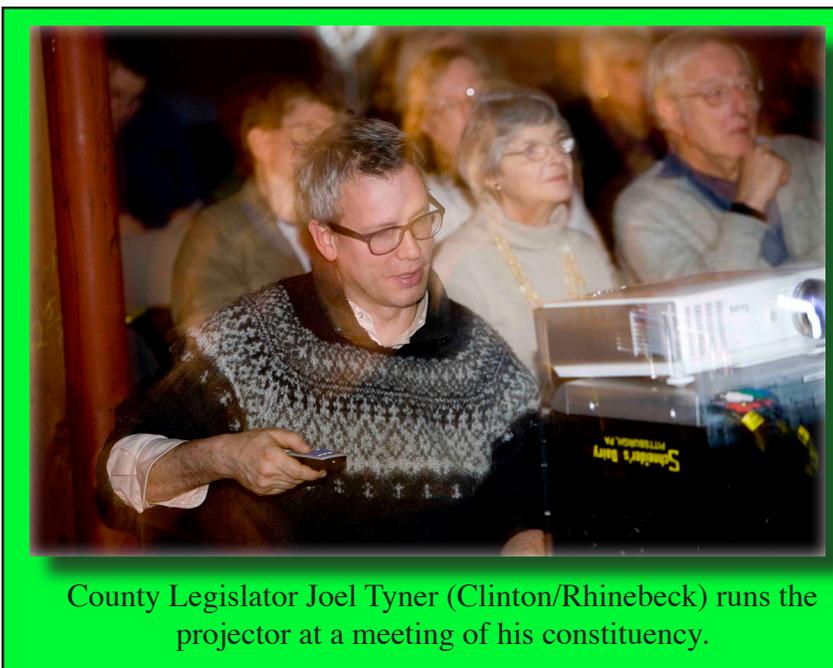
One of the best things about the hand count is that most people view it as accurate, so it should give confidence that the election is free and fair. In fact we may see more hand counts anyway races are close or outcomes disputed. But here's the dirty little secret about the hand count. It has flaws too. One of the problems with the hand count is that it invites lawyers and advocates into the proceedings. These advocates if they are really good can argue successfully against or for certain ballots saying that they are marked wrong or too sloppy to interpret. They would probably only bother to do that in the very close, important races where money and power is at stake.

The better funded the lawyers, the more effect they can have on the outcome and this is one of the few ways in which a well financed campaign can actually change the outcome of a race. After all that's where this all started, during the hand count in Palm Beach where arguments by lawyers over punch cards which were not pressed hard enough succeeded in disqualifying them even though the intent of the voter was visible by the half punched hole. There is a solution to that problem though and the Democratic Commissioner of the state board of elections proposed it. It's a set of rules and regulations governing the interpretation of the many possible mistakes and that a voter could make on a paper ballot. Election Boards have a lot of experience with the strange things people do with ballots, like signing their name or voting for "the woman" as happened in Ulster County during the mayors race in the write-in column. That first ballot was properly disqualified and the second vote for "the woman" was properly not recorded, but there is a universe of other irregularities that would have to be covered in a more complete rule book along with a way to institute these rules that allows for all parties to be satisfied and the count to go through without a court case on every ballot. A physical system, a specially built room or building, must be created too, where counters can be seen by voters as the count is being made but not harassed or impeded by over zealous advocates as happened in Palm Beach. Kind of like a jury, with rules set down by a judge using a book of laws that would govern the count. Congressman Maurice Hinchey co-sponsored a bill to help fund the replacement of electronic (paperless) voting machines and help fund hand counting ballots on election night, It's called HR 5036.



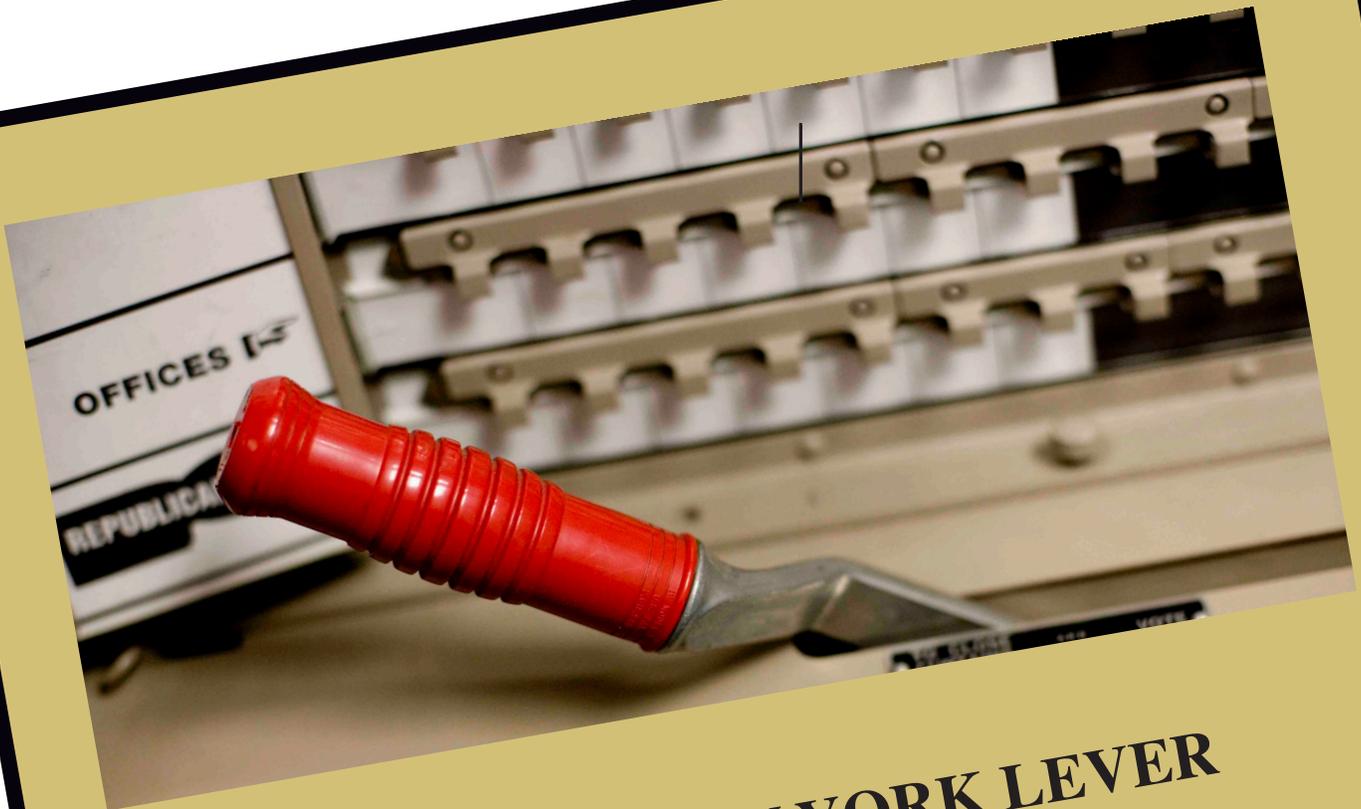
### THE PUBLIC BALLOT

Here's one option that kind of goes along with any of the paper ballot systems. The optical scanners being proposed all do two things, they scan and then interpret the vote, but some people are advocating for a simpler scanner at election headquarters, which would scan each ballot into a computer image. It would not be sophisticated enough to interpret the vote, it must not have that ability. It would just make computer images (tiff) of every ballot. These scanners already exist for record keeping, can be bought off the shelf, and work a high speed like those dollar counters at the bank. Those images would be made available to the public via the Internet or by distribution of DVD's and in that way anyone who cared to could check the vote. The scanners could be hacked and could be smarter than they appeared and there are other problems, but it's an option and it might give greater transparency to the whole process. How many people would claim that they counted the vote and found it to be flawed? Probably many. How much would that add to the confidence of the public, maybe not that much. Would people be able to discern the identity of a voter who wanted to be found in order to receive rewards for their vote? It's possible.



## A TIME FOR CHANGE??

Oh, one last thing. After speaking to many legislators, county and state board of election commission members, voting advocates, lawyers, voters, and fans of DRE's, optical scanner enthusiasts, and hand counting supporters I can say that they all agreed on one thing. They all like the lever machines that we already have. Not one of the people I spoke to disagreed on that point. Some wished we could keep them forever and some wanted them just until a better solution could be created, but everyone has confidence in them. So what's the problem? They are old? That's ok so are many of the voters. They are hard to get parts for? That's ok parts can be made. The Help America Vote Act outlaws them? Well that's not so clear. Does the Act regulate only the federal elections, leaving the bulk of the elections legal on the old machines? Does the act have a loophole that would allow the lever machines as long as the disabled had an alternative? At least one expert Andi Novick of Election Defense Alliance (<http://www.electiondefensealliance.org>) says yes to both and has filed a friend of the court brief arguing that point.



**THE OLD NEW YORK LEVER**

Here are how your legislators think (the ones who have email and responded)

#### Ulster County

- Mary Sheely favors Paper Ballots with optical scanning
- Brian Cahill favors paper ballot optical scanning
- Gary Bischoff's is a man of action, he is an expert in this field, he was on top of this issue from the start, and was helpful in writing this article. His proposed law can be viewed at: <http://www.co.ulster.ny.us/resolution-archives/2007/ILL%20No.%201%20of%202008.pdf>
- Hector Rodriquez favors either Optical Scan systems or possibly a vote by mail method that was explored by legislator Zimet's committee last year.
- Don Gregorius I prefer Optical Scan machines
- Brian Shapiro Opposed to DRE's
- Robert Aiello, District 4 While I have no special preference for the exact type of machine to be implemented, I am more concerned that the machine that will ultimately be selected will offer an acceptable tracking system that would insure the integrity of the vote.
- Richard Parete (also Ulster Co. Board of Elections Commissioner) I support the paper ballot with the optical scanner, not the direct recording electronic device (DRE), If we had an option to keep our current voting machines I would support that option.

#### Dutchess County Legislators

- Dan Kuffner District 7 favors keeping lever machines or using paper ballots
- Bill McCabe favors Paper Ballots and the use of Optical Scanners
- Tom Mansfield District 20 (Red Hook/Tivoli) "I have endorsed County legislation that supports the use of optical scanners to count paper ballots."
- Joel Tyner (Clinton/Rhinebeck) Joel has been very active on this issue and helped with this article. He is opposed to DRE's and is the originator of the Hand-Count Every Vote petition. As a legislator he is not above running the projector to show an informative film to his constituents and replied very quickly and with enthusiasm when asked about this issue. His petition can be found at <http://www.petitiononline.com/hndcount>

Also – for those who are turning 18 sometime in 2008 you can register to vote now. Just pick up an application fill it out and send it in. You will then be registered to vote, but since you may still be 17 you can vote only vote if you turn 18 on or before Nov. 4, 2008. You must register before October 9 2008. The applications can be found at the post office, library, department of motor vehicles, or at the Board of Elections office at 284 Wall street in Kingston for Ulster County and 47 Cannon Street in Poughkeepsie. There are too many place to list them all. You may be required to show id (or utility bill) when you vote if you mailed in your application. To vote you must have lived at your present address for 30 days or more and not be in jail or on parole for a felony conviction. If there is any problem when you go to vote you have the right to get a "provisional" or "emergency ballot" which you fill out and then they call figure out later whether or not you were eligible to vote, if yes then your vote will be counted if the race is close.

There are 124,130 registered voters in Ulster County and 172,163 in Dutchess county but none of them are registered as members of the “Rent is Too High” party or the “Socialist Workers Party” in fact when you see the someone from the Rent is Too High Party let them know that there is only one person registered as a member in all of New York State and that person doesn’t even live in New York City. They live in Oneida County where the median monthly rent was \$470 in the year 2000. Some people are never happy. They may have really wanted to join the “Snow is Too High” party.

Additional Links at [airpaul .com](http://airpaul.com)

- Download voter registration applications and mail it in
- Absentee ballot application
- Bajar aplicaciones para votar en espanol y enviar
- All the places you can register to vote in person
- A summary of HAVA (the Help America Vote Act)
- Black Box Voting - an advocacy group for free and fair elections
- Diebold/premier election solutions information on the web
- How to contact your legislator in Ulster County (phone/fax/email/ regular mail photo)
- How to contact your legislator Dutchess County (phone/fax/email/ regular mail)

-paul joffe mail can be sent to me at [paul@airpaul.com](mailto:paul@airpaul.com)