Statement of Daniel P. Tokaji  
Cuyahoga County Board of Elections  
December 17, 2007  
Electronic Voting Systems

My name is Daniel Tokaji. I am an Associate Professor of Law at the Ohio State University’s Moritz College of Law and the Associate Director of Election Law @ Moritz, a nonpartisan project whose mission is to provide reliable information and analysis on federal, state, and local election law issues.¹ My main areas of research are election administration and voting rights, and my “Equal Vote” blog (http://moritzlaw.osu.edu/blogs/tokaji) is devoted to these topics.

I also served as cooperating counsel with the ACLU of Ohio on Stewart v. Blackwell, a federal lawsuit challenging Ohio’s central-count optical scan and punch card voting equipment.² A Sixth Circuit panel concluded that these systems violated the Equal Protection Clause of the U.S. Constitution, because they result in more lost votes than other available technology. 444 F.3d 843 (6th Cir. 2006). The Sixth Circuit subsequently ordered this case dismissed as moot, after Ohio’s old equipment was replaced with new technology that provides voters with notice and the opportunity to correct errors. 473 F.3d 692 (6th Cir. 2007).

My purpose in appearing before you today is to caution against the hasty elimination of the current voting technology. I am aware of the well-documented problems that occurred in this county’s 2006 elections, as well as the recent EVEREST report from Secretary of State Jennifer Brunner, and do not discount the security concerns surrounding existing optical scan and direct record electronic voting technology. What I wish to emphasize is that there is more to the story than this.

In determining what voting technology is best, it is essential to consider not just security but also the values of accuracy and equality. The current voting technology has significant benefits in these respects, reducing the number of lost votes and the racial gap in lost votes. The county should avoid precipitous action that would imperil these benefits. It is also important to remember that, while technology is important, it is just one component of an election system. In terms of preparing for 2008, the focus should be on the human element, including procedures and training for those working at the polls.

Let me try to put the security issues surrounding voting technology in perspective. On a national level, the transition to direct record electronic and precinct-count optical scan has had substantial benefits. Unlike the equipment mainly used before 2006 (punch card and central-count optical scan systems), the current equipment provides voters with notice and the opportunity to correct errors. As explained in the attached letter sent to the board on Monday, December 10, 2007, social science data reveals that this equipment has markedly decreased the number of votes lost due to inadvertent “overvotes” (marking more choices than is allowed) and “undervotes” (failing to mark

¹My institutional affiliation is provided for purposes of identification only.  
²In addition, I am a member of the ACLU of Ohio’s board.
a choice that can be read) throughout the country. One national study estimated that one million votes were saved in 2004, due to new voting technology and better procedures.

Precinct-count optical scan and direct record electronic systems thus reduce the number of votes lost due to inadvertent overvotes and undervotes. On the other hand, non-notice systems (such as the punch card and central-count optical scan systems that predominated before 2006) perform much worse in terms of accuracy. Given this evidence, this county and others should avoid moving away from notice technology. The likely result would be an increase in the number of uncounted ballots. That is especially true in communities with larger numbers of minority and low-income voters, who tend to benefit most from notice technology.

Switching back to non-notice equipment would also revive the constitutional issues that were at stake in the Stewart litigation. In particular, moving to a central-count system would raise serious questions under the Equal Protection Clause of the U.S. Constitution, as well as Section 2 of the Voting Rights Act of 1965 (42 U.S.C. § 1973), which prohibits practices that result in the disproportionate denial of minority votes.

Let me touch briefly on the report of Project EVEREST, which Secretary of State Brunner’s office released last week. There can be no doubt of the need to examine carefully the vulnerabilities of existing technology, as the EVEREST report purports to do. At the same time, there is a danger of overreacting. Decisions should not be made based on panic, nor should decisions be made in a manner that will lead to panic on the part of voters. As my Moritz colleagues and I observed in a five-state report released earlier this month, there are dangers in changing too much too quickly without thinking through all the consequences.

Making hasty changes to voting technology before the 2008 election is, in my view, especially hazardous. The EVEREST report suggests that Ohio counties could switch to a central-count optical scan while making scanners available at each polling place for voters to check their work. As I explained in a blog post on Saturday (attached to this testimony), it is not at all clear that this would reduce the number of lost votes typically associated with central-count systems. It is also doubtful that it will enhance security.

The reality is that any system is vulnerable, if adequate procedures are not in place or if able and well-trained people are not running elections. In the short time that remains between now and the 2008 elections, this county and others would do better to focus on people and procedures, rather than attempting a risky and expensive overhaul of voting equipment.

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5See Kimball, Summary Tables, at 4-6.

December 10, 2007

VIA EMAIL AND U.S. MAIL

The Honorable Jennifer Brunner
Secretary of State of Ohio
180 E. Broad Street
Columbus, OH 43215

Cuyahoga County Board of Elections
2925 Euclid Avenue
Cleveland, OH 44115

Dear Secretary Brunner and Members of the Board:

As you may recall, we represented a group of Ohio voters in the Stewart v. Blackwell case, which challenged the state’s use of non-notice punch card and optical scan voting systems under the Fourteenth Amendment to the U.S. Constitution and the Voting Rights Act of 1965. A Sixth Circuit panel concluded that this equipment violated the equal protection rights of Ohio voters, based on evidence showing that many votes would not be counted with these systems. 444 F.3d 843 (6th Cir. 2006). The en banc court subsequently ordered this case dismissed as moot in January of this year, after central-count optical scan and punch card voting systems were eliminated throughout the state. 473 F.3d 692 (6th Cir. 2007)(en banc).

We are writing in regard to recent news reports regarding the voting technology used in Cuyahoga County. We understand that a review of Cuyahoga County’s direct record electronic voting system has been undertaken and that recommendations may be imminent. We further understand that one option under consideration is eliminate the current system and move to a central-count optical scan system.

Although we support ongoing efforts to assess the reliability of voting technology, we would strongly urge that Cuyahoga County avoid moving to a central-count optical scan voting system. This type of equipment does not provide voters with notice and the opportunity to correct errors, like inadvertent “overvotes” (marking more choices for a contest than is allowed) and “undervotes” (failing to mark a choice that can be read for a particular contest). Social science evidence demonstrates that non-notice optical scan systems result in more lost votes.
Particularly problematic is the Inkavote optical scan system. Among the problems with this system are that: 1) the names of candidates are not printed on the ballot, as with the now-retired Votomatic punch card, 2) it is difficult for voters to determine whether they have marked their ballots correctly, and 3) votes may not be counted if the ballot is marked too lightly or if there are stray marks. One study found that the Inkavote resulted in a 3.52% overvote and undervote rate in 2005, compared to 1.07% for direct record electronic and 1.22% for precinct-count optical scan systems. Henry Brady & Iris Hui, U.C. Berkeley, “Let’s Not Forget About Accuracy” (2007). The available evidence also shows that racial minorities and people of lower educational levels are particularly hard hit by the Inkavote in Los Angeles County. *Id.*

For these reasons, moving to a central-count optical scan system would represent a major step backwards for Cuyahoga County. It would deny voters the benefits of currently available notice technology, which has been proven to reduce errors and to prevent lost votes. The predictable result of a switch to non-notice technology is that a larger number of citizens’ votes would not be counted. In the 2008 election, it is predictable than tens of thousands of citizens will not have their votes counted, if Cuyahoga County moves to a non-notice system. Given Ohio’s pivotal role in national politics, it is quite possible that switching to this equipment would affect the results of the election. It is certain that a non-notice system would have an especially harmful effect on racial minorities and those of limited education levels.

Though we have concerns about the feasibility of any transition during the 2008 election cycle, we do not oppose the county moving to a precinct-count system that would give voters notice and the opportunity to correct errors. Moving to a non-notice system, however, would increase the number of lost votes. As we asserted in the Stewart litigation, it would also violate voters’ rights under both the Fourteenth Amendment and the Voting Rights Act. As noted above, a Sixth Circuit panel concluded that non-notice equipment violates citizens’ voting rights due to the higher number of lost votes. It would be most unfortunate if the State of Ohio were to again find its voting equipment challenged in court. We hope that such litigation will not be necessary.

Accordingly, we strongly urge that Cuyahoga County avoid moving to a non-notice optical scan voting system. We respectfully request a response within one week of this letter, by the close of business on Monday, December 17, 2007. We would welcome the opportunity to discuss this matter with you or representatives, if you think such a discussion would be productive.
Sincerely,

Meredith Bell-Platts
ACLU Voting Rights Project

Paul Moke
Richard Saphire
Daniel Tokaji*

* Not admitted to Ohio bar.

cc: Richard Coglianese, Ohio Attorney General’s Office
    The Honorable Chris Nance, Assistant Secretary of State
    Cuyahoga County Board of Commissioners
Saturday, December 15

EVEREST: Ohio's Voting System Report

Ohio Secretary of State Jennifer Brunner yesterday released this report of Project EVEREST (Evaluation & Validation of Election-Related Equipment, Standards, & Testing). Today's Columbus Dispatch has this report. The report is billed as a "comprehensive" review of the voting systems used in Ohio, which are also used throughout the United States. Its release provides an opportunity for me to get back into the blogging saddle and consider some of the issues that are likely to arise in Ohio, which is likely to be a pivotal state in this year's presidential election as it was in the last one.

There can be no doubt of the need for thorough analysis of both voting systems and procedures, which EVEREST attempts. Secretary of State Brunner thus deserves credit for taking on this task. There are, however, some problems with the report, particularly with the recommendations it draws. Foremost among them are the elimination of the voting systems used throughout most of Ohio and the replacement of precinct-based voting with vote centers. Some of EVEREST's recommendations are worth experimenting with. But in my view, the most dramatic ones aren't justified by the evidence considered.

This is a big report, so I'll focus here on three of the most significant recommendations:

1. **Eliminating Precinct-Count Optical Scan and Direct Record Electronic Voting Systems.** This is the most headline-grabbing recommendation in the report. Ohio currently uses two types of equipment -- precinct-count optical scan (PCOS) and direct record electronic (DRE) systems. In contrast to the systems that were mainly used in Ohio before 2006, both these systems provide voters with notice and the opportunity to correct errors. But the new technology has, of course, been the subject of security worries. Most of these have surrounded voting technology to date have involved touchscreens and other DRE systems. The EVEREST report also takes on Ohio's existing PCOS systems and finds these lacking as well in terms of security.

All of this is perfectly reasonable. The real question is what to do about it. The report's solution is to eliminate both PCOS systems and replace them with Central-Count Optical Scan (CCOS) systems. These were used in some Ohio counties before 2006. The main problem with them is that they typically don't allow voters notice and the opportunity to correct errors. The result is more uncounted votes than either DRE or PCOS systems, as documented here. It's worth remembering -- though often overlooked -- that the transition to newer technology, along with better procedures, is estimated to have saved one million votes in the 2004 election.

Moving back to an ordinary CCOS system would sacrifice these benefits, and could be expected
to result in more lost votes. This could revive the equal protection claims that were made in the Stewart v. Blackwell case, which was dismissed as moot earlier this year. (Disclosure: I served as co-counsel for plaintiffs in this case.)

EVEREST's apparent answer to this (see the parenthetical in Recommendation #2 on p. 77) is to recommend that precinct-based optical scanners be made available to allow voters to check for errors before casting their ballots. Although the report's explanation isn't crystal clear, my understanding is that instead of tabulating votes, these scanners would only allow voters to check for overvotes and undervotes, if they chose to use them. One of the questions, not answered by this report, is whether voters actually would do this or even understand the reason for the scanners. To my knowledge, no such voting method has actually been used elsewhere in the country -- at any rate, I can find no examples provided anywhere in the report showing that this will be effective. Will this modified CCOS system really prevent inadvertent overvotes and undervotes? Wouldn't it be better to test such a system in a real-world election environment, before recommending that the existing system be scrapped in its entirety and replaced with an as-yet untested system?

More fundamentally, it's doubtful that moving to a central-count system would solve the security issues identified. I'll take the report at its word when it says that the lock on a precinct-based optical scanner could be picked (p. 21), allowing someone with the requisite technical know-how to tamper with software and alter results. But someone without any technical know-how could pick a lock on a ballot box to tamper with the results. With a precinct-count system, there's at least a redundant record of the votes cast -- both the ballot and the record of votes stored in the memory card. No such redundancy is present with votes placed in a ballot box, to later be counted at a central location.

The point is that any type of voting system is vulnerable to manipulation, if proper checks aren't in place. In the end, the EVEREST report doesn't make a convincing case for Ohio's scrapping its existing technology -- particularly for 2008, a timetable that would wreak havoc on local election officials and, ultimately, to the detriment of voters.

2. Replacing Precincts with "Vote Centers." The other major change recommended by the EVEREST report is to eliminate precinct voting as we know it, and move to "vote centers." What's good about the recommendation is that it would mean expanded early voting (which Ohio somewhat oxymoronically calls "in-person absentee voting"). What's worrisome is that it would mean the closure of existing precincts on Election Day.

EVEREST recommends a pilot program in two or three counties in March 2008. This is a worthwhile idea. The problem is that it recommends the implementation of vote centers, apparently statewide, in November 2008 provided that funding is available. Wouldn't it be better to do a serious analysis of how well vote centers work, before mandating them statewide? There are some advantages to the vote center idea, especially in places where poll worker resources are usually scarce. The downside is that voters will have to travel further from home in order to vote. What if the polling place that used to be off the nearest bus line for an elderly voter is moved to the other side of town? How will this affect voter participation? What sort of public education effort will be needed to inform voters throughout the state of the changes in where they may vote? Will we need additional public transportation to get voters to the polls?

Here again, it would be useful to look to the experience of other states before proposing such a sweeping change. I'm not arguing against experimentation with vote centers, but think it's premature to recommend the elimination of precinct-based voting throughout Ohio, especially on such a rushed schedule.

3. Expanded Mail Voting. Making the process of voting more convenient for voters is a worthy objective. In-person early voting is a good way of doing this. More problematic is expanding mail voting and especially going to all-mail elections of the type that Oregon has. The most often cited
problem is that mail voting is more susceptible to manipulation than in-person voting, since one can never be sure who actually voted the ballot – or whether he or she was paid in order to vote a particular way. Even more serious is the risk of errors with mail voting, such as mismarked ballots, the failure to return them on time, or the failure to sign in the right place. Simply put, there are lots of things that can go wrong when people vote by mail, without the benefit of a poll worker to assist them.

There are also reasons to be concerned about how all-mail elections will affect turnout. In places where it's been tried, there's evidence that it results in modest increases in turnout, particularly in local races where turnout is especially low. But those gains disproportionately occur among those groups already the most inclined to vote. The worry is that moving to all-mail elections in a state more diverse than Oregon might further skew the electorate, making it older, richer and whiter.

EVEREST doesn't recommend moving to all-mail voting for all elections, but it does recommend conducting special elections to be conducted by mail and giving counties room to expand all-mail voting. A better option for increasing voter convenience, as we recommended in our Registration to Recounts report released last week, would be to expand in-person early voting.

A final note: I mentioned at the outset that the report bills itself as being "comprehensive." But in reality, the report is heavy on the technical details on voting technology but light on the real-world consequences of the major changes it proposes. This is consistent with the initial reactions of some of the election officials, who criticized parts of an earlier draft for relying on "pure supposition and bias" and for being "over-hyped" (pp. 44-45). Missing is an examination of the experience with different election administration practices, including thorough analysis of the social science evidence that's been gathered in recent years on the accuracy of voting technology and the practical impact of different administrative practices. In sum, the report is partial rather than comprehensive and, accordingly, its recommendations should be taken with a large grain of salt.

One particularly embarrassing example is the report's discussion of the Automark, a ballot-printing device which it ultimately recommends for the use of people with disabilities. After noting the Automark "could be easily compromised" to mark ballots incorrectly, the report states that "[t]he effects of this attack ... may be minimal, as a voter is able to visually detect any errors on the ballot" before casting it (p. 26). But of course, the very reason for using the Automark is to accommodate people with disabilities, including blindness or other visual impairments. How are those voters supposed to "visually detect" errors? This exemplifies the report's failure to apply a reality check to the issues it discusses.

In the end, the success of Ohio's 2008 election is likely to hinge more on procedures and people than on technology. In the few months that remain between now and the election, Ohio and other states would do better to focus on those issues than to attempt a hasty overhaul of its voting technology.

- posted by Dan Tokaji @ 8:27 AM

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