Issues with Vote By Mail Ballots

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Voting By Mail (VBM) was developed to support absentee voters. It was originally intended to handle canonical absentee voters who now fall under the Uniformed and Overseas Citizens Voting Act (UOCAVA) and those with legally acceptable reasons for being unable to appear at the polls on Election Day. Its use slowly expanded to more casual justifications, such as those with planned travel on election day. More recently, there has been a trend of further expansion to on-demand VBM in many states. As a result, the percentage of VBM ballots has skyrocketed, with little research regarding its impacts on security, privacy, reliability, and accuracy on U. S. elections.

In this letter, we summarize several issues that we believe must be considered before on demand VBM is adopted in Alabama. We leave the relevant issues of turnout, cost, convenience, access, etc. to election officials and we focus on security and reliability.

1. Reliability and Accuracy

Lost mail. The mail system is designed to deliver a large volume of mail in a short time. It is not designed to track each item, so mailed items are routinely lost, and occasionally, large volumes of mail are lost. As an example of one significant lost mail instance that included VBM ballots, the Clearwater post office lost 1100 absentee ballots for one election in 2008[2].

Because of its design that does not establish a rigorous chain of custody, any approach that employs regular mail, marked ballot delivery, i.e. VBM, is not auditable. VBM ballots can be lost in the mail system with no ability to find them, or even to detect their loss.

Voter errors. VBM procedures are inherently complex and error prone. We found little broadly applicable historical data on this topic, but in the 2008 election in Minnesota approximately 4.2% of all VBM ballots were rejected (12,000[3] of 288,000[4]) due to procedural errors by voters. Common errors include failure to sign, signing in the wrong place, and improper packaging (e.g. husband and wife bundling two absentee ballots in the same envelope).

This 4.2% vote loss percentage does not include ballot marking errors that may be prevented or corrected at the polling place, so the overall vote loss/error is likely more than 5% greater for VBM voters than is polling place voting.

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[1] With contributions from Pei Fong Yap and Christopher Colvin
[2] http://www.tampabays10.com/news/local/story.aspx?storyid=76237
[3] Startribune.com, "Senate recount: Pendulum swings to Franken", By MIKE KASZUBA and CURT BROWN, December 3, 2008
[4] http://www.sos.state.mn.us/docs/postpercanvassingreport1117250p.pdf

Election official errors. Inherently complex VBM procedures are also difficult for temporary elections officials, who routinely process VBM ballots, to understand and follow. In Minnesota, at least 13% of rejected absentee ballots were rejected in error[5]. The actual percentage of erroneously rejected ballots may be higher, because there may still be erroneously rejected ballots that have not been detected/corrected. In one Minnesota county[6], after the senate contest was certified and reviewed, another, further review revealed that 20% (30 of 150) of the thrice-reviewed rejected ballots had been originally erroneously rejected by local elections officials: "...who misunderstood state law or mishandled ballot applications".

Administering VBM ballots is an inherently complex process and significant errors are certain to occur.

Duplicated ballots. Many jurisdictions require elections officials to duplicate damaged or difficult-to-read VBM ballots. This creates a significant opportunity for error, as in the Minnesota senate race where the Wall Street Journal[7] suggests that duplicates may have been counted twice in several precincts.

> *But it appears some officials may have failed to mark ballots as duplicates, which are now being counted in addition to the originals. This helps explain why more than 25 precincts now have more ballots than voters who signed in to vote.*

2. Fraud

It is fundamentally more difficult to ensure the validity of VBM ballots (one person-one vote) than for those cast in person, both because it is more difficult to strongly authenticate the voter (Voter Authentication) and because it is more difficult to bind a ballot to the identified voter (Ballot Attribution).

Voter Authentication. Beyond eliminating any chance that a long time poll worker might recognize an imposter, there is no opportunity for picture identification or other face-to-face interaction that could detect identification malice, or error, for VBM voters.

Ballot attribution. In a polling place, once a voter is authenticated, ensuring that they (and not an imposter) complete their ballot is simple. Authenticated voters are given a blank ballot and access to a privacy booth.

With VBM, after the voter is authenticated, it is impossible to guarantee that an accompanying VBM ballot was created by that voter. The main ballot attribution mechanism, signature recognition, is a highly imprecise practice. Even experts can have trouble identifying signature variations given the small writing sample incorporated in a signature. Elections officials and temporary elections workers that process VBM submissions are not hand writing experts. Hospital workers, postal carriers,

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[5] http://www.startribune.com/opinion/editorials/36194339.html?elr=KArks7PYDiaK7DUqyE5D7UiD3aPc:_Yyc:aUU

[6] http://www.startribune.com/politics/national/senate/39314392.html?elr=KArks7PYDiaK7DUvDE7aL_V_BD77:DiiUiD3aPc:_Yyc:aUU

[7] http://online.wsj.com/article/SB123111967642552909.html

apartment superintendents, and many other persons in management or maintenance positions among residential populations offer opportunity to request and intercept many VBM ballots with little chance of detection and even less chance of being caught themselves.

3. Vote Attribution

Voter privacy is commonly seen as voters' ability to cast their ballot without anyone being able to know their selections. Well beyond the commonly heard practice of voting for an ill spouse or parent, VBM is inherently susceptible to violations of even this minimal privacy interpretation since each VBM ballot must be bound to the identify of the voter in order to ensure one person-one vote, as noted above. Elections officials institute procedures to protect voter privacy, but the inherent vulnerability still exists for every VBM ballot.

Worse yet, in order to prevent voter coercion and vote selling/buying, elections demand a much stronger privacy property, essentially that voters' selections cannot provably be attributed to them even if voters themselves desire to prove those selections to another party.

VBM does not protect against vote attribution and is susceptible to widespread fraud. For example, in the 2008 election, organized groups engaged a social network by encouraging young voters to request absentee ballots to then bring them to "Debate and vote parties[8]." In these parties, issues were discussed and ballots were marked without access to privacy booths. The opportunity for coercion or other undue influence in such social circles is immense.

4. Summary

Vote By Mail offers voting access to constituencies that may not otherwise be able to cast their ballot in U. S. elections. Unfortunately, vote by mail is inherently un-auditable and there are significant other security and reliability challenges that get progressively worse as VBM use expands. We present some of the relative issues in this short paper under the headings of (1) Reliability and Accuracy (2) Fraud, and (3) Vote Attribution.

This paper takes a short look at challenges to expanding vote by mail use. It is not intended to be a comprehensive analysis, but rather identifies and summarizes issues that we believe are important to this decision.

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[8] http://www.nytimes.com/2008/10/17/us/politics/17colorado.html?_r=1&th&emc=th&oref=slogin