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December 8, 2008

Rosemary E. Rodriguez, Chair
U.S. Election Assistance Commission
1225 New York Avenue, Suite #1100
Washington, DC 20005

Dear Chair Rodriguez and Commissioners:[1]

Thank you for the opportunity to submit public commentary on the 2008 General Election. I would like to comment on the role of incident reporting.

Background

On Election Day, I volunteered as a Voting Systems Expert with the Election Protection Coalition (EPC), a large election protection effort consisting of over 100 non-profit organizations. EPC fielded around 100,000 voting incident phone calls and mobilized legal response teams on the ground in more than a dozen states. While the focus of EPC's efforts was immediate—assisting voters personally as well as coordinating responses at the local and state level to minimize chances for disenfranchisement—incident-based data collection has become an increasingly important part of the operation.

I spent some time after the election examining the voting technology-related incident reports captured by EPC's OurVoteLive (OVL) tool. The OVL tool provided call center volunteers with a structured interview form to capture voter-reported data directly into a large incident database that could then be called up by other EPC personnel at command centers and in the field.[2] My preliminary analysis of the voting technology incidents from OVL is attached at the end of this letter.

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[1] I have a split affiliation as a postdoc between UC Berkeley and Princeton University.

[2] *See:* http://www.ourvotelive.org/. The OVL database was publicly available on Election Day but data was restricted to non-sensitive fields.

After the election, commentators moved quickly to pronounce it as having gone "smoothly" or not. Neither of those judgments is correct: for some voters, the election went very smoothly; for others it was a veritable disaster. Voters' experiences naturally vary from these two extremes and attempting to construct an "average voter experience" is not useful. We should instead learn from where improvements are clearly warranted and document where there were successes. Only through this exercise in reflection can we begin to improve the election experience for all voters.

Allow me to highlight three of the larger issues this data exposed:

Incident-based Feedback and Response is an Essential Part of Healthy Election Administration

As our research group has pointed out since 2004, incident reporting and feedback is vital for maintaining the health of our elections system.[3] Despite the many problems with voter-reported data, incident reporting data comes directly from the source—individual voters reporting their frustrations, observations and gratitude. Often incident data can expose problems in real-time, before they become more serious issues. For example, EPC volunteers were able to report emergency ballot shortages to local and state election officials, typically before they knew they had a potential problem on their hands.

States have begun to keep their own incident reports and feedback mechanisms. For example, during the California Secretary of State's Top-To-Bottom Review of voting systems, our team was allowed access to their incident reporting spreadsheets. These spreadsheets are used on election day to handle critical incidents and to track the state of any follow-up. The CA SoS can then use these to inform any future state-level coordination that may be needed to mitigate such problems in the future, including procedure redesign, voting system recertification or investigation and voter outreach.

State election officials are using publicly-available data, like the OVL data, for quality control purposes. I was recently contacted by the State of Maryland election administrator, Linda Lamone, for comments on the attached preliminary analysis of OVL data. In my analysis, I showed that there were some reports of late polling place openings in the State of Maryland. Ms. Lamone and her staff wanted to be able to follow-up with these jurisdictions to make sure these polling places open at 7am in future elections. Using data available from Maryland's electronic pollbook system provided by Premier Election Solutions, Inc., Ms. Lamone was able to show that 99.34% of all precincts in Maryland opened on time.[4] Additionally, she showed that the latest precinct opening in the entire state was 7:17am, hardly a significant delay. While many jurisdictions have data like this available either internally or externally for analysis, reports from the field provide the real data around which analysts can construct hypotheses for investigations.

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[3]Deirdre K. Mulligan and Joseph Lorenzo Hall. *Preliminary Analysis of E-Voting Problems Highlights Need for Heightened Standards and Testing*. National Research Council's Committee on Electronic Voting. Dec. 2004. URL: `http://josephhall.org/papers/NRC-CSTB_mulligan-hall_200412.pdf`; *Public Comment on the 2005 Voluntary Voting System Guidelines*. A Center for Correct, Usable, Reliable, Auditable and Transparent Elections (ACCURATE). Sept. 2005. URL: `http://accurate-voting.org/accurate/docs/2005_vvsg_comment.pdf`; *Public Comment on the Voluntary Voting System Guidelines, Version II (First Round)*. A Center for Correct, Usable, Reliable, Auditable and Transparent Elections (ACCURATE). May 2008. URL: `http://accurate-voting.org/wp-content/uploads/2008/05/accurate_vvsg2_comment_final.pdf`.

[4]Linda Lamone, *personal communication*. Note that this analysis was performed by examining the times of voter card activations by the pollbook system for use in Maryland's AccuVote-TS DRE voting systems.

Contingency Planning is Vital, Although Poorly Understood by Voters

A surprising and curious feature of the OVL data was the uniformly unenthusiastic, and occasionally downright suspicious, attitude voters had towards back-up and contingency plans.

Given the complexity of administering elections regardless of the choice in voting technologies, there are many places where a single failure can turn into a bottleneck. Wise election administrators devise contingency plans such that voting may continue. For example, many precinct-based optical scan systems have an "auxiliary bin" that can function as a ballot box when the scanner malfunctions. Instead of placing their ballots into the scanner normally, voters place their ballots in this auxiliary bin, for later counting and/or scanning.

A lack of contingency planning can be especially hard on voters. Data captured by the OVL system show a few cases where voters had no recourse but to wait for lengthy periods in the face of machine malfunction (often coupled with poor resource allocation). On the contrary, other types of voting systems, notably central-count and precinct-count optical scanners, permit "parallelization" of the voting process; voters can fill out the paper ballots without needed to monopolize the voting technology used for casting their ballot. Even here, though, we see room for improvement as voters were often seriously concerned about missing or inadequate privacy protections provided during contingency plan voting.

The OVL data shows a surprising amount of suspicion and rejection by voters of standard contingency plans. Voters are worried that their votes will not count, or will count differently, if they use the alternative method for casting their ballot. In a few cases, voters left without casting their ballots, hopefully to return at another time later in the day. In a number of cases, voters reported refusing to leave the precinct and waiting to cast their ballot when the normal voting method would be returned to service.

This is to say that voter reports bely some dis-ease with "difference" in the context of voting—i.e., voters believe changes in the voting process and method are suspicious and that these differences could likely introduce inequality. This sensitivity to differences in voting is remarkable given the variety of differences we tolerate in other areas of voting (i.e., across machines, practices, training, counting, auditing). It is clear that we need to think of methods for calming this dis-ease, either through voter education about contingencies or by making contingency planning more uniform so that voters expect two voting systems: the "plan A" voting system and the "plan B" system.

The Broken Promise of HAVA for Voters with Disabilities

A groundbreaking promise of the Help America Vote Act of 2002 was ending the second-class status of voters with disabilities. While most election jurisdictions now have voting systems in their polling places that disabled voters can use to cast their ballots with increased privacy and independence, the follow-through on this promise has been disappointing.

The OVL data, as well as reports from disabled colleagues, show that disabled voters often arrive at their polling place to find voting systems that have not been set up and pollworkers who do not know how to use them. Voting for the disabled remains a primitive affair, taking 4-5 times as long as non-disabled voting, on systems that barely usable by their intended user base.

The amount of effort and time spent to date on designing and procuring voting systems for disabled voters should not fall victim to poor implementation and training. Incident reports and

feedback from disabled voters in the field should be used in real-time to know where voters are having particular problems. Disabled voters should be especially encouraged to report problems they have voting, in detail. Note that supporting disabled voter incident reporting will require both outreach and reporting elements specifically designed for disabled voters. This might be expensive, especially for small jurisdictions, so state election directors, or possibly even a federal body like the EAC, should consider taking up this activity.

The best picture of what can go wrong on election day is provided by incident reports. Both election protection organizations and state election directors use incident reports to gather data on problems encountered in the field and to inform any possible short-term or long-term response. The EAC should consider the role that incident reporting and feedback can play in supporting election administration at the federal level.

Sincerely,

Joseph Lorenzo Hall

Biography

Joseph Lorenzo Hall recently graduated with his Ph.D. from the University of California, Berkeley School of Information working under information law professors Pamela Samuelson and Deirdre Mulligan. Hall started a postdoctoral research position at the Center for Information Technology Policy (CITP) at Princeton University this past Fall. Hall's academic focus is on mechanisms that promote transparency, as core functions of our government become digital. His Ph.D. thesis used electronic voting as a critical case study in digital transparency.[5] Mr. Hall holds master's degrees in astrophysics and information systems from UC Berkeley and is a founding member of the National Science Foundation CyberTrust ACCURATE Center (A Center for Correct, Usable, Reliable, Auditable and Transparent Elections). He served as a voting technology, policy and law analyst on the teams that conducted the California Secretary of State's Top-To-Bottom Review of voting systems and Project EVEREST, Ohio's review of its voting systems.

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[5] Joseph Lorenzo Hall. *Policy Mechanisms for Increasing Transparency in Electronic Voting*. A dissertation submitted to the Graduate Division of the University of California at Berkeley in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Information Management and Systems, 2008. URL: `http://josephhall.org/papers/jhall-phd.pdf`.

A Preliminary Analysis of OVL Voting Equipment Reports

Warning: This is a very long post.

Introduction

I've spent the past week looking over the voting equipment problems captured by the [Election Protection Coalition](#)'s 25 nationwide call centers into the [Our Vote Live database](#). There were around 1900 such incidents in the database, although that number is probably closer to 1700 taking into account duplicates.

Before I launch into the analysis, a few caveats:

- This is voter-reported data, which means it can be inaccurate.
- There has been no attempt to control for multiple reports from a single precinct.
- In many cases it is hard to tell what exactly happened as the incident reports were taken by mostly non-technical legal volunteers from mostly non-technical voters and volunteers in the field.
- Given the unbelievable popularity of the 1-866-OUR-VOTE hotline, OVL was unable to capture all incidents that people wanted to report.
- There are undoubtedly incidents that were not reported to the OVL hotline for a variety of reasons.

Bottom-line: This is useful for qualitative notions of what went wrong on election day.

While I've worked to make this post accessible to an audience that may not be familiar with the vagaries of voting technology, I just don't have enough time to explain everything. In that sense, I encourage you to ask questions (joehall@berkeley.edu) and I can amend this document to clarify as needed.

The Big Picture

Somewhere close to 85-90% of all voting equipment incident reports from the OVL database are very simple and report some combination of: broken equipment, long lines, and/or emergency ballots being handed out and/or auxiliary bins on optical scan systems being used (many optical scan systems have a bin incorporated into the design of the machine where ballots can be placed in the event the system ceases to function or the power remains out for hours). If we can do anything to improve the experience of the average voter facing a machine problem, it should be reduce the amount of time they spend in line.

Another curious feature of the data is the voters' uniformly negative attitudes toward contingency or back-up plans. Whenever the primary mode of voting is affected, whatever the contingency plan to keep people voting, it appears that voters are often upset and mistrustful. They seem to think that there is a possibility that their vote will not count if cast via a contingency plan. This is unfortunate as with any critical technical system, there should be a contingency plan in place that covers what to do if that system fails and how the system may continue or recover from that failure. For example, when an optical scanner goes down, the standard contingency plan is to place ballots in an auxiliary bin or container. Voters reported concerns with this kind of accommodation and were worried that their votes might not count. In a number of cases, voters refused to place their ballots into auxiliary bins and waited for hours before the scanner could be serviced or a new replacement scanner brought in. It's clear from this that we need to do a better job of educating voters

as to what to do and what to expect in case of emergencies.

Ok, enough of the big picture; now on with the details!

Broken Machines, Long Lines, Long Waits

As I said, the OVL database contains mostly complaints about broken machinery, long lines, long waits to vote and reports of emergency ballots being used instead of the normal mode of voting. These incidents are so numerous that it doesn't really make sense to say much more. However, there are some interesting features from these reports.

Machine breakdowns and poll book bottlenecks lead to some voters waiting in line for a long time. Machine breakdowns ranged from simple problems to reports like one where all 15 voting machines had stopped working in an Atlanta polling place (61728). In some cases, the registration process caused the bottleneck leading to long lines, including reports of only one pollbook for hundreds of voters in New York City (68936) and e-pollbook problems in Georgia and Maryland (48481, 86413). We have reports of people waiting in line for 3 hours in New Jersey (63356), 3.5 hours in Georgia (55674), 5 hours in Ohio (21500), 6 hours in Missouri (82785) and a poor voter who fainted due to exhaustion in NYC while waiting in line (83379). In many cases, long lines were exacerbated by voters insisting on feeding their own ballot into an optical scan machine, despite it taking a long time to service or replace the affected equipment (Ohio: 52729). In a number of cases, precincts began to run out of paper ballots (Virginia: 43073).

Problems with Emergency Ballots

Emergency ballots are paper ballots used in case the main voting equipment in a polling places ceases to function properly. They're typically placed in a sealed ballot box or in an auxiliary bin incorporated into the design of an optical scan system. Some jurisdictions in the past have not planned accordingly and either not provided enough emergency ballots, so that polling places run out, or not provided them at all. I was very encouraged to see that in most cases, emergency ballots were available. However, what I didn't count on was that voters consider voting via an emergency ballot to be fundamentally suspect; that is, most were worried that their vote wouldn't count if cast via emergency ballot. We also saw some confusion between provisional ballots and emergency ballots, cases where pollworkers were refusing to hand out emergency ballots and a number of complaints about decreased voter privacy when emergency ballots were being used.

Voters Uncomfortable with Using Emergency Ballots

Many voters seemed worried or uncomfortable casting emergency ballots. In New York City, a caller reported that people were leaving rather than casting emergency ballots (68315) and, as mentioned above, there is evidence that some people refused to leave until they could cast their ballot normally in the machine (Virginia: 43392, 45800). In one case from Ohio, a voter reported that one of his ballot pages wouldn't scan and that he was told by a pollworker to place his ballot in a folder labeled "Oh Crap" with his name, phone number and address on it (47805).

Other cases I noted (by no means is this list comprehensive): NY: 70990, 43538; OH: 46738, 48213; PA: 46490, 51811; FL: 56051, 67857; MO: 48184, 54810; IN: 44583; IL: 51008; AL: 64675; AZ: 52547, 60247, 92471; CA: 82036, 83252

Not Permitting Voters to Use Emergency Ballots

We saw cases in at least two states where poll workers were refusing to hand out emergency ballots despite significant machine failures. Despite a ruling in Pennsylvania that required emergency ballots to be given

out when 50% of machines in a precinct were down, OVL received a number of reports that pollworkers were not handing out emergency ballots (e.g., 45436, 45545). In one case a caller claimed that voters in line were "fighting with poll workers" over emergency ballots (46401). There were also reports of polling places in New York not offering emergency ballots (43072, 43116, 43152). We also had a number of cases from New Jersey where pollworkers were confusing provisional ballots with emergency ballots (e.g., 43302)

Privacy Concerns with Emergency Ballots

Numerous voters called in to say that the privacy afforded to them while filling out their ballot was severely impacted by emergency balloting procedures. A pollworker in California decided to take over the role of the broken optical scanner and manually review the marking of each ballot, presumably looking for overvotes and undervotes (57719). Voters in Ohio and Pennsylvania reported feeling very uncomfortable filling out their emergency ballots as others in the polling place could see how they voted (44091, 52199). Finally, the length of the lines in Michigan lead to a shortage of privacy sleeves, without which voters were not being allowed to cast their ballots (47325, 48018, 49671, 53785). (A privacy sleeve is essentially a legal-sized Manila envelope, about $1 apiece at Staples.)

Problems with Disability Access Equipment

One of the big promises of the Help America Vote Act of 2002 (HAVA) was that voters with disabilities would finally be able to cast votes privately and independently. Unfortunately, while all jurisdictions in the US now have disabled access technology in their polling places (or some other accommodation), this promise has fallen short.

In many cases, the disability access equipment simply didn't work or was not set up properly on election day (AZ: 54531; CA: 82162, 82751, 93171; NY: 43261, 88576; MO: 84713; MN: 92806). Pollworkers frequently did not know how to use these systems (NY: 45978, 43372, 46992; MD: 49457). And despite laws like HAVA, we still see reports of basic accessibility problems such as building and polling place accessibility (51922, 84713, 88353), complicated ballots (85857) and voters with serious conditions such as walkers and diabetes having to wait in long lines (49457, 88512)... the diabetic left without voting, by the way.

One particular case warrants special attention (88483). In this case, a blind voter found that the machine was not working. When the voter brought this to the attention of the poll workers at her polling place, they "complained about trying to make machine operable when there was a line and no one else needed to use it." This is truly terrible: a poll worker complaining about doing their job and doing so in a way that appears intended to make the disabled voter feel guilty about how their disability affects the polling place. This pollworker at Long Lane Court in Delaware County, Pennsylvania should be ashamed.

Finally, in New York there was an interesting case where a voter of Haitian descent had trouble figuring out what was going on when the machines broke down due to language issues (92905). This case gives a hint at what voters with limited English proficiency face when things go wrong.

Machine Malfunctions, Fixes

In the realm of machine problems, the data shows a variety of interesting things, from questionable technical fixes to broken and unstable machinery to unexpected behavior from machines.

Improper Technical Fixes

The most serious cases concerning machine malfunction involved what I call improper technical fixes or inappropriate servicing of equipment. In South Carolina, individuals removed a voting machine from the polling place and took it out to a car to tinker with it (89533). In New York, there were three striking cases of inappropriate service. A man who used to be a poll worker or election technician, but was no longer, was resetting the lever machines in one precinct after each vote (55057). In another case, a police officer reportedly fixed a machine (70424). Finally, a voting machine needed to be "reset" and the pollworkers required one voter to "waste" their vote as it was reset with the voters ballot still activated but not cast (88142). In all of these cases, it is hard to tell if the person "fixing" the machines is an authorized agent of the state or local election official.

Possible Broken Lights/Buttons, Levers, Etc.

Voting machines, like all machines, break (in fact, another way of stating the 2nd Law of Thermodynamics is simply: "Everything breaks").

The OVL data has numerous reports of lights and buttons not working on machines in New Jersey and Pennsylvania (NJ: 46008, 56364, 59330, 85342, 87092; PA: 66514, 69144, 80924). In New York, we saw many reports of broken levers and broken lights that should be illuminating the lever ballot (NY: 61117, 62013, 46658, 43649, 45963, 84727). In one case, a voter tried to cast a write-in vote, but the write-in wasn't working; when the voter was allowed to use a different machine, she reports voting for someone else on the ballot because she was afraid that using the write-in slot on the machine would cause the new machine to break (70962).

Optical Scanners Not Incrementing Ballot Card Count

When a voter inserts an optical scan ballot into an optical scanner, usually a serial number counter increments to show that a new ballot has been scanned. In a number of cases---from Ohio, Virginia, Minnesota, Texas and North Carolina---we see reports of voters saying that the number did not increment when they inserted the ballot (OH: 70443, 84413; VA: 46089, 58330, 93670; MN: 67120; TX: 65937; NC: 59196, 61940). What might cause this? Typically, if a ballot page has an overvote or write-in, that page will be redirected (or "diverted") to a smaller, separate ballot box in the machine for ballots that need human inspection. Pollworkers usually have to manually hit an "override" switch to allow these ballots to be fed in and the counter does not increment in these cases. In many jurisdictions, these ballots are examined and then "remade" to correctly reflect the voter's intent (as long as they can tell what the voter intended to do).

Machine Stability

In a number of cases, machines appeared to be unstable or simply didn't work as they were supposed to. The data shows machines that keep rebooting (60554), frozen or hung machines (43698), machines that shut down (63059), machines that would work only after periodic shaking and kicking (43430), problems with networked eSlate voting machines (57580) and a machine where the optical scan memory card was not working with the machine it was suppose to work with (81997).

Ballot Navigation, Missing Races

We saw a number of issues with voters having difficulty understanding how to navigate a digital ballot, including "fleeing" voters, "premature" voters, missing races and issues with the user interface for voting machines.

"Fleeing voters" and "Premature voters"

A "fleeing voter" is a voter who leaves a voting machine without having cast their voted ballot. A "premature voter" is one who accidentally casts their ballot (or has it cast for them) before they are finished voting their ballot. I have typically associated both of these kinds of voters with first-generation DRE voting systems like the Sequoia AVC Advantage and the Danaher ELECTronic 1242; both these systems have large "VOTE" buttons that are easily missed by some voters---"fleeing" voters---but that are activated and can be pressed anywhere during the voting session---"premature" voters.

We do see quite a few reports of fleeing and premature voters on these older systems (NJ: 57655, 65732; PA: 55416, 60873, 85533, 85950, 65711). However, we also see evidence of premature voting on a lever machine in NY (69990), premature voting on the ES&S iVotronic DRE in Ohio and Pennsylvania (61267, 82609, 55416), premature voting on the Sequoia AVC Edge DRE in Virginia (42934), a premature voter on the new ES&S DS200 system in Florida (49123) and a fleeing voter on the Sequoia AVC Edge II Plus in Chicago (53492).

UI Issues

In terms of reports of user-interface issues, we saw a few cases where the iVotronic interacted strangely or unexpectedly when voting a straight-party option (56027, 57497). There was confusion where a voter saw arrows next to her choices as well as the "VOTE" option (58627). In one case the voter reports hitting the "cast ballot" button and the machine responded that her vote was canceled (66279). Finally, in Washington DC, a voter reported that the review screen on a DRE had reported that he hadn't voted in all races, but when he went back in the ballot to check, he found that he had voted in all races (87927).

Missing Races

A seemingly abnormal amount of voters called in to report missing races off their ballot (e.g., 62077). In Virginia, these came in the form of ballots where the Presidential race was the only contest available (45852, 47895, 49416, 55472, 56160) and vice-versa---ballots where the Presidential race was the only race missing (45157, 45272, 48455, 49819, 53575, 55802, 57468). There were also reports of incomplete ballots where the presidential race was missing in Pennsylvania on the AVC Edge and iVotronic DREs respectively (59545, 63224).

Paper Record Problems

There were a number of problems reported with voter verified paper record (VVPR) printers, optical scan machines and bleeding pens.

In Ohio, three concerning problems with VVPR printers on the Premier AccuVote-TSx cropped up. Voters reported seeing blank paper when they went to check the VVPR (58266), a paper jam affecting 36/50 ballots (84679) and a problem where the last voter's VVPR was left exposed to the next voter (93742). In other states, voters reported a non-printing paper trail in Missouri and Illinois (88648, 90876) and a paper trail printer error in California (63150).

In Virginia, we saw problems reported with wet ballots gumming up the works of optical scan machines (92623, 90490). In one polling place in California, a voter reported their optical scan machine was "shredding" ballots (61864).

In a few cases, bad marking instruments were reportedly being used with optical scan ballots: felt-tip pens

or permanent "magic" markers that can bleed through ballot paper. Felt tip pens were reportedly being used in California and Florida (61899, 65847) and in a few cases affecting races on the opposite side (60169, 61636).

"Vote-Flipping"

Reports of "vote-flipping" were significant. "Vote-flipping" is where a voter attempts to register a vote for one choice on the ballot only to have a different choice selected. I'm not a big fan of this terminology as I think it inappropriately lumps a bunch of design problems, technical problems and voter behaviors into one over-broad category. Regardless of what I think, voters reported it often.

Few voters understand what I think the dominant cause of vote-flipping to be: touchscreen miscalibration. However, one voter from Chicago recognized a miscalibration and had the pollworker recalibrate the touchscreen (51219). Other interesting cases of note include: one case of republican to democratic party vote-flipping (87474), a couple of cases from Mississippi and Missouri where the error was only noticed on the paper trail (70899, 69731) and a couple cases from Mississippi and Georgia of vote flipping in a contest other than US President (70606, 84842).

Other vote-flipping cases: FL: 80828; MO: 34226, 82436, 69731; OH: 51055, 56199; PA: 59342, 91483, 67389, 68496, 95316; VA: 46922, 53562, 59267; MD: 86493, 91143; MS: 92806; TX: 85308; NV: 13625; MO: 34226, 82436; NC: 56860; SC: 58223, 89640; IN: 41481; GA: 91615; WV: 04625.

Poor Ballot or Machine Custody

We saw a number of reports of poor chain of custody (control) over either ballots or voting machines or both. In California, these two problems were mixed in one polling place when a pollworker decided to periodically empty the emergency/auxiliary bin and place emergency ballots in the main bin (88942). Not only is this way too much handling of the paper ballots, but the seal on the door to the main ballot bin was compromised.

When ballot boxes got full or auxiliary bins began to overflow, or simply when there was no ballot-box-like container in which to place ballots, we saw reports of poor ballot custody. Ballots in New York were "just laying around" (85609), in Pennsylvania and California in plastic bags (48028, 70442, 70670), in Florida in duffel bags, on the floor and in folders (58347, 68859, 67857), stacked on top of a machine in Minnesota (62835) and into an unsecured and open ballot box in Indiana (45556).

There were reports of unsealed machines in New York and Pennsylvania (56995, 47935, 52090).

Problems with Pollworkers Related to Machines

Reports of problems involving pollworkers were numerous. Staffing and training a pollworker force can be a challenge and occasionally problems with pollworkers can effect the voter's interaction with voting technologies.

Improper Advice or Improper Casting of Ballots

In a few cases, pollworkers intentionally or mistakenly cast a voter's ballot before they are finished voting or before they've had a chance to revise their ballot. A pollworker in New York prematurely cast a voter's lever machine ballot (85508). When a voter was asking for instructions on how to vote in Virginia, a pollworker cast the voter's blank ballot (48003). Pollworkers in Illinois appeared to be improperly overriding optical

scan ballots and casting a ballot before a voter was finished (56655, 68580). Finally, pollworkers in Arizona were also reported to be improperly overriding overvoted ballots (86848).

Other Pollworker Machine Effects

There were a few other interesting pollworker-related cases. A lead pollworker in Ohio suddenly got sick and had to be taken away in an ambulance; this cast the polling place into chaos when the other pollworkers were unsure how to compensate (63881). In Pennsylvania, a voter reported a problem with a voting machine and the pollworker requested that the voter swear on the Bible to the veracity of her claims (58922). In one case, unrelated to voting technology, a pollworker was forcing people to sign their names in the pollbook next to names that were not the voters' (46764). In Ohio, pollworkers were handing out the incorrect ballot style for a precinct for a while (44347) and in Florida, one voter even received a partially filled-out ballot (87761).

Miscellaneous

In the proverbial "kitchen-sink" category, I should mention a few other interesting reports:

- In Pennsylvania, a caller reported that the instructions in the local newspaper for voting on the touchscreens showed a touchscreen that said "No" and "Yes and No", but the voter just wanted to vote "No" (25526).
- A pollworker from Georgia called in to ask for the password to their voting machine so that they could delete a ballot (58275).
- Voters in Ohio and Pennsylvania noticed that their voting machines were still on Daylight Savings Time and were concerned that their votes (or some votes, at least) would not count due to this (47027, 86539).