The November election can be safe and secure — but we need to take action, now.

PROTECT THE ELECTION

BRENNAN CENTER FOR JUSTICE

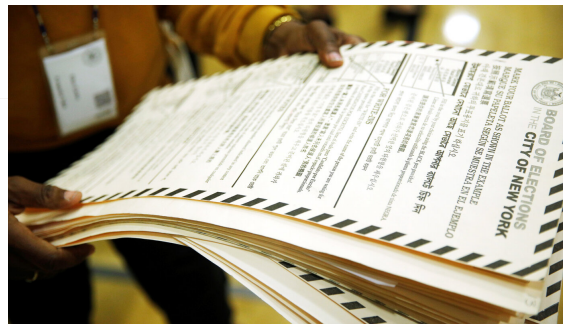Issues   Our Work   Experts   Get Involved   About   Library   Press

Home // Our Work // Research & Reports // To Avoid an Election Meltdown, Officials Must Stockpile Backup Paper Ballots

RESOURCE

To Avoid an Election Meltdown, Officials Must Stockpile Backup Paper Ballots

Emergency paper ballots can allow voting to continue even when touchscreen machines go down.

Anadolu Agency/Getty

Defend Our Elections
Election Security

Gowri Ramachandran   Derek Tisler

PUBLISHED: September 29, 2020

In June, Georgia conducted a primary election now infamous for long lines. Across the state, there were problems with electronic pollbooks, access cards to start up touchscreen voting machines, and the touchscreen machines themselves. State officials and the vendor blamed "human error" and poor training, but machine troubles in Georgia, and elsewhere, are nothing new, as a federal judge just noted in a court order mandating effective backup for the technology problems. [1] As new poll workers start across the country, difficulty learning how to troubleshoot and operate voting technology will likely persist in November. [2] Moreover, the risk of a cyberattack against election infrastructure remains a concern, with local governments and election vendors having been subject to ransomware attacks over the past year. [3]

Fortunately, there's a simple solution to let voting continue in the face of inevitable technical difficulties: an ample supply of backup paper supplies. [4] If voting machines are malfunctioning or inoperable, poll workers can provide voters with emergency backup paper ballots to hand-mark until the machines can be

fixed. Provisional balloting materials can be used when electronic pollbook issues — or a cyberattack on the registration database — prevents poll workers from knowing whether voters are eligible or whether their absentee ballots have been received and accepted for counting. [5]   Unfortunately, Georgia did not have enough backup materials in the spring, and a federal judge just ordered all Georgia election officials to keep updated paper pollbooks in each polling place that can be used to check voter eligibility to cast a regular ballot, along with a "sufficient" level of emergency paper ballots to provide voters. [6]

To be sufficient, there should be enough emergency and provisional materials to keep voter lines moving for up to three hours while any technical issues can be identified and resolved. In 2020, this will likely require precincts to have enough backup materials for 40 percent of all Election Day voters.

While unprecedented levels of early and mail voting are expected due to the pandemic, Election Day voting is still what most are familiar with. It's unreasonable to bank on the vast majority of voters casting their ballots ahead of Election Day. Yet if they stick to current policies in purchasing their Election Day backup supplies, that's the gamble jurisdictions will be taking. Fortunately, they can still print more supplies now.

Ripple Effects from the Morning Rush

Technical failures are going to occur. And when they do, voters may feel the effects all day. Most jurisdictions see the largest rush of voters in the morning during the first few hours that polling places are open. [7]   This pattern poses a particular problem for election officials, as morning is also a time when technical issues are especially likely to occur. Election equipment may arrive late, be delivered to the wrong polling place, or set up incorrectly on election morning. Moreover, many jurisdictions will use new equipment in the 2020 general election, increasing the likelihood of problems.

Regardless of severity, problems take time to solve. Election officials, technicians, and other experts cannot be in every polling place. If the problem afflicts several polling places at once, they may not be able to solve issues right away. With many voters arriving at the same time, roadblocks in the polling place process can quickly lead to long lines.

These impacts can spread far beyond just the morning rush. Evidence shows that "[i]f a precinct clears its morning line quickly, it is unlikely to experience long wait times for the rest of the day." [8]   But if the morning line is not cleared in a reasonable time, "long wait times are likely to occur for the entire day." [9]

Minimum Requirements

To stop technical failures from creating election meltdowns, election officials need to make sure that polling places have enough backup paper supplies on hand to keep lines moving for up to three hours while equipment issues can be identified and resolved. This year, election officials should prepare for 40 percent of Election Day voters to arrive during the busiest three hours. [10]

In Georgia, where touchscreen voting machines are used statewide, regulations require enough emergency paper ballots for only 10 percent of all registered voters. This requirement is not sufficient to act as an effective failsafe for voting machine failures. Even if counties experienced overall turnout of just 70 percent — well below the predictions of historic turnout officials must prepare for — the typical precinct would need 64 percent of its voters to cast ballots early or by mail in order to have enough emergency paper ballots for the busiest three hours of Election Day voting. There would be none leftover for common situations like a voter who finds themselves at the wrong polling place and needs to cast a provisional ballot. And overall turnout is widely expected to be significantly higher than 2016 levels. [11]

Need for Backup Paper Ballots Based on Election Day Voters Assuming 70% Overall Turnout

EARLY AND ABSENTEE VOTE SHARE	PERCENT OF REGISTERED VOTERS ON ELECTION DAY	EMERGENCY PAPER BALLOT SUPPLY NEEDED TO HANDLE 40% OF ELECTION DAY VOTERS
64%	25%	10% of registered voters
50%	35%	14% of registered voters
40%	42%	17% of registered voters

Even in Georgia's June primary, which would have attracted more frequent voters who are more familiar with all their voting options, about 64 percent of all voters, and only about 54 percent of Latino voters, ended up using early and absentee voting. [12]   The rest voted on Election Day. Election officials must prepare for at least some precincts to hit historic Election Day turnouts. They cannot simply count on early and mail voting to solve the risk of long lines.

Because they cannot control how many people will vote and when they will cast their ballot, election officials must focus on what they can control — the amount of backup paper supplies in polling places. By doubling the emergency ballot supply requirement to 20 percent of registered voters, as Pennsylvania does, officials can provide enough emergency ballots for the busiest three hours under any level of turnout, as long as half of all votes are cast early or by mail. But achieving a 50 percent vote share from early and absentee methods is a tall order in states like Pennsylvania, which began giving voters these options for the first time this year. At 30 percent of registered voters, polling places would have a viable failsafe for voting machine failures under all but the most extreme levels of Election Day voting. Of course, if emergency supplies are used in other situations, such as for provisional voters, then greater quantities may be required. [13]

Need for Backup Paper Ballots Based on Number of Election Day Voters Assuming 90% Overall Turnout

EARLY AND ABSENTEE VOTE SHARE	PERCENT OF REGISTERED VOTERS ON ELECTION DAY	EMERGENCY PAPER BALLOT SUPPLY NEEDED TO HANDLE 40% OF ELECTION DAY VOTERS
50%	45%	18% of registered voters
40%	54%	22% of registered voters
30%	63%	25% of registered voters
20%	72%	29% of registered voters

The spotlight has been brightest on Georgia, but they are not the only state facing a risk of long lines due to insufficient paper supplies. Although most battleground states that use touchscreen voting machines require polling places to have emergency paper ballots, election officials in almost all of these states must plan to supply more emergency paper ballots this year than what current policies call for. [14]   And while most polling places are required to have provisional materials on hand in case voter registration status cannot be verified, minimum amounts are generally not defined in law. [15]

Election officials should plan to supply enough of these materials for 40 percent of Election Day voters — especially where provisional ballots are needed for voters who request an absentee ballot but later change their mind and decide to vote in person.

The right to vote must be preserved for everyone, no matter what state they live in. In these last weeks before Election Day, supplying polling places with enough backup paper materials — and ensuring that poll workers know how to use these materials when they are needed — provides a relatively simple way to ensure that inevitable technical glitches don't disenfranchise Americans who choose to vote in person.

Endnotes

1. Mark Niesse and Alan Judd, "Election Fiasco Reveals Flaws with Georgia's New Voting System," Atlanta Journal-Constitution, June 14, 2020, https://www.ajc.com/news/state--regional-govt--politics/election-fiasco-reveals-flaws-with-georgia-new-voting-system/FoZjtLGPYccOrHzXHiPbDL/; Jaclyn Cosgrove, John Myers, and Matt Stiles, "L.A. County Primary Voting Was Plagued with Technology Flaws," Los Angeles Times, June 17, 2020, https://www.latimes.com/california/story/2020-06-17/l-a-county-primary-voting-was-plagued-with-technology-flaws; Fadel Allassan, "Judge Orders Georgia to have Paper Backups of Pollbooks on Election Day," Axios, last updated September 28, 2020, https://www.axios.com/judge-georgia-pollbooks-paper-backups-d83c46db-48e5-45d7-97ab-62f459d3b629.html.

2. Jonathan Diaz, "Why You Should Be a Pollworker this Year," CNN, September 1, 2020, https://www.cnn.com/2020/09/01/opinions/poll-worker-recruitment-covid-19-diaz/index.html.

3. Tom Burt, "New Cyberattacks Targeting U.S. Elections," Microsoft, September 10, 2020, https://blogs.microsoft.com/on-the-issues/2020/09/10/cyberattacks-us-elections-trump-biden/; Nicole Perlroth and David E. Sanger, "Ransomware Attacks Take on New Urgency Ahead of Ahead of Vote," New York Times, September 27, 2020, https://www.nytimes.com/2020/09/27/technology/2020-election-security-threats.html.

4. Edgardo Cortés, et al., "Preparing for Cyberattacks and Technical Problems During the Pandemic: A Guide for Election Officials," Brennan Center for Justice, June 5, 2020, https://www.brennancenter.org/our-work/research-reports/preparing-cyberattacks-and-technical-problems-during-pandemic-guide.

5. Edgardo Cortés, et al., "Preparing for Cyberattacks and Technical Problems During the Pandemic."

6. Kevin Morris, "Digging into the Georgia Primary," Brennan Center for Justice, published August 24, 2020, last updated, September 10, 2020, https://www.brennancenter.org/our-work/research-reports/digging-georgia-primary.

7. Surveys from the 2016 election show that "nearly a quarter of Election Day voters had cast a vote by 9:00 a.m., and 56 percent had voted by noon." Ninety percent of Election Day precincts saw their longest lines of the day within the first hour that polls were open. John C. Fortier, Charles Stewart III, Stephen Pettigrew, Matthew Weil, and Tim Harper, "Improving the Voter Experience: Reducing Polling Place Wait Times by Measuring Lines and Managing Polling Place Resources," Bipartisan Policy Center, 2018, 19, https://bipartisanpolicy.org/wp-content/uploads/2019/03/Improving-The-Voter-Experience-Reducing-Polling-Place-Wait-Times-by-Measuring-Lines-and-Managing-Polling-Place-Resources.pdf.

8. Fortier, Stewart, Pettigrew, Weil, and Harper, "Improving the Voter Experience," 26.

9. Fortier, Stewart, Pettigrew, Weil, and Harper, "Improving the Voter Experience," 26.

10. Across eight battleground states (Arizona, Florida, Georgia, Michigan, North Carolina, Ohio, Pennsylvania, and Wisconsin) an estimated 32 percent–43 percent of Election Day voters arrived during the busiest three hours in 2016. Charles Stewart III, "2016 Survey of the Performance of American Elections," 2017, 343, https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/Y38VIQ.

11. William A. Galston, "Election 2020: A Once-in-a-Century Massive Turnout?," Brookings, August 14, 2020, https://www.brookings.edu/blog/fixgov/2020/08/14/election-2020-a-once-in-a-century-massive-turnout/; Ronald Brownstein, "Brace for a Voter Turnout Tsunami," The Atlantic, June 13, 2019, https://www.theatlantic.com/politics/archive/2019/06/2020-election-voter-turnout-could-be-record-breaking/591607/.

12. Kevin Morris, "Digging into the Georgia Primary," Brennan Center for Justice, published August 24, 2020, last updated, September 10, 2020, https://www.brennancenter.org/our-work/research-reports/digging-georgia-primary.

13. In most Georgia counties, the same stock of pre-printed ballots used when machines malfunction can also be used when a voter is at the wrong precinct and needs to vote provisionally.

14. At least some counties in North Carolina, Georgia, Pennsylvania, Ohio, and Nevada use touchscreen voting machines. Of these, only Nevada does not have an emergency paper ballot requirement for November 2020. It is possible that jurisdictions in Nevada keep emergency paper ballots on hand, in practice. The battleground states in which some counties use touchscreen machines on election day are Georgia, North Carolina, Pennsylvania, Nevada, and Ohio. Georgia requires paper ballots for 10 percent of registered voters, Pennsylvania requires enough for 20 percent of registered voters, and North Carolina requires enough for 50 percent of registered voters. Ohio requires enough for 15 percent of the total number of voters in the highest voter turnout year in a presidential election starting in 2008.

15. Help America Vote Act, 116 Stat. 1666, sec. 302 (2002).

Related Resources