

**GBBC Open-Source Ideas Series:
'State of Global Voting Systems, Technology,
and Government'**

**Part III: Trust and Transparency in the
U.S. Election 2020**



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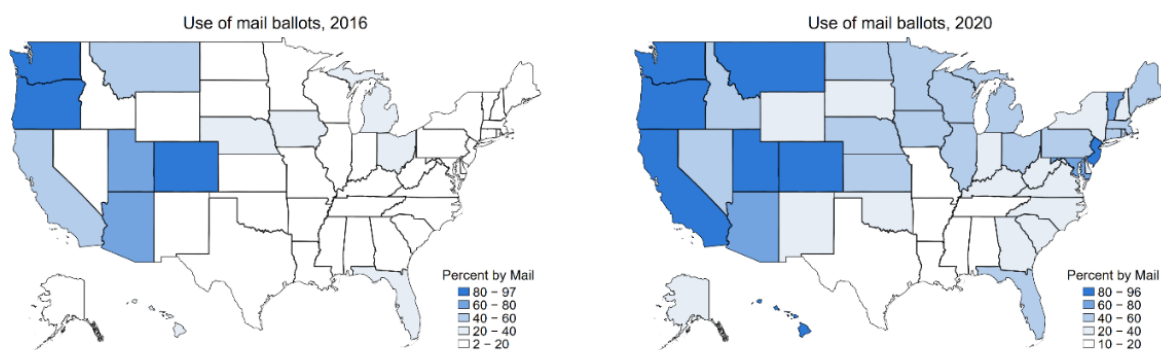
Election Day

2 November 2021

Washington D.C., USA

Introduction: A Look Back to Election 2020

The 2020 election was remarkable in every respect, conducted during a worldwide pandemic and amidst false claims of voter fraud, over 159 million Americans cast their vote. 66.7 percent of the voting eligible population (VEP) had their ballot counted, the highest since 1900.ⁱ In 2016, 21 percent of voters voted by mail/absentee; in 2020, over 46 percent used these methods.ⁱⁱ According to the Survey of the Performance of American Elections, 98 percent of mail voters had no problems getting their ballots sent to them, 81 percent said it was very easy to follow all instructions to cast and return their ballot, and 73 percent were very confident their vote was counted as intended, up from 62 percent in 2016. For Election Day voters, 97 percent responded that their polling place was run very well or okay.



Source: How We Voted in 2020, MIT Election Data + Science Lab

Regarding fraud, 62 percent of voters believed people voting with an absentee ballot intended for another person happened almost never or infrequently, this figure was 62 percent regarding non-U.S. citizens voting, 68 percent regarding people pretending to be someone else to vote, 68 percent regarding people voting more than once, and 67 percent regarding officials fraudulently altering vote counts. These responses were sharply split along partisan lines, with 93 percent of Democrats very or somewhat confident that votes nationwide were properly counted, as opposed to 23 percent of Republicans.ⁱⁱⁱ

These figures point to interesting and perhaps unexpected takeaways: despite serious concerns over the voting apparatus in the months leading up to the election, particularly regarding mail-in voting, the systems in place worked extremely well in terms of resiliency, scalability, and integrity. Specific fraud claims, such as widespread voting under the names of dead individuals, have been repeatedly debunked by election officials^{iv} and news organizations.^v Additionally, an

election audit of Maricopa County ordered by Arizona Senate Republicans found no evidence of fraud.^{vi}

Why Voter Roll Accuracy and Real Time Information Matters

Inaccurate and outdated voter rolls make it harder for people to vote, not easier to conduct voter fraud. A recent study of “suspected movers” — who are flagged by the Electronic Registration Information Center (ERIC, a non-profit association which assists 30 states in maintaining voter rolls) and mailed a postcard asking them to confirm their address — found that about 4 percent



“of suspected movers cast a vote in 2018 at the address flagged as out of date. That is, they were flagged by ERIC as a suspected mover, did not respond to a postcard, and yet did not actually move and instead voted at their original address of registration.”^{vii} It is important to note that this is the lower bound of this error rate, as the researchers were unable to “observe how many additional registrants in the movers poll books also continued to reside at their address of registration but did not vote in 2018.” Additionally, *minority registrants were twice as likely as white registrants* to cast ballots from a flagged address.

Studies of voter roll accuracy are rare for a variety of reasons, including the Driver’s Privacy Protection Act, which “prohibits the release or use by any State DMV... of personal information about an individual obtained by the department in connection with a motor vehicle record”^{viii} and the fact that “ERIC prohibits states from disclosing to third parties the list of voters flagged as movers, which has heretofore made it impossible for independent researchers to assess its error rate.”^{ix} The lack of transparency in this process is concerning and increasingly significant; ERIC has grown from seven member states in 2012 to 30 member states plus Washington DC. ERIC notes that it receives “at a minimum its voter registration and motor vehicle licensee data. The data includes names, addresses, date-of-birth, last four digits of the social security number. Private data such as date of birth and the last four digits of the Social Security number are protected using a cryptographic one-way hash and then transmitted to ERIC,”^x and “subscribes to the Social Security Death Master (SSDM) list in order to provide information on possibly

deceased voters to its members.”^{xi} However, according to the Office of the Inspector General of the Social Security Administration (SSA), the SSA “does not receive death information for all individuals, thus SSA does not guarantee the DMF’s completeness. A person’s absence from the file does not necessarily mean the person is alive.”^{xii} Additionally, the Government Accountability Office (GAO) found that “SSA does not independently verify all reports before including them in its death records. In accordance with its policy, the agency only verifies death reports for Social Security beneficiaries in order to stop benefit payments, and then, verifies only those reports from sources it considers less accurate, such as other federal agencies. GAO identified instances where this approach led to inaccurate data.”^{xiii} Put simply, the SSDM has been found to both falsely include and exclude deaths and is not a reliable source of data.

The Need for Transparency and Trust

To resolve the serious ongoing problems with voter rolls, state agencies should adopt simpler processes for verifying voters and consider embracing emerging technologies to foster openness, transparency, and trust-enabling solutions.

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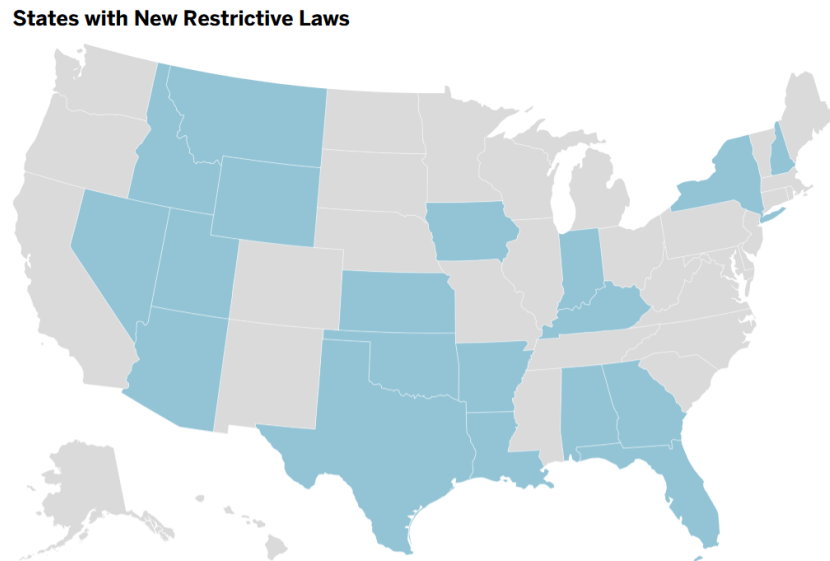
Blockchain technology allows diverse groups of stakeholders to access a shared source of truth in which it is possible to track changes to entries and ensure accuracy.

In this hypothetical system, state departments of motor vehicles (DMVs), election commissions, and agencies responsible for collecting death certificates would be trusted nodes able to make changes, while unaccountable and opaque

organizations like ERIC would be rendered unnecessary. Additionally, prospective voters would be able to check the database to ensure that their information is correct, and if not, identify which agency or agencies made changes. To conform with the Driver’s Privacy Protection Act, it is possible to cryptographically secure all or some personal information. This proposed solution would have the benefit of addressing both perspectives of the debate over voting: it would ensure that voter rolls are constantly updated to reduce the rare instances of voter fraud and it would reduce the number of people who are disenfranchised by inaccurate information.

Conclusion

At the state level, legislative reactions to the 2020 election have been swift; according to the Brennan Center, “Between January 1 and September 27, at least 19 states enacted 33 laws that make it harder for Americans to vote [and] at least 25 states enacted 62 laws with provisions that expand voting access.” Laws to expand voter roll purges have been passed in Arizona, Iowa, Kentucky, Louisiana, New Hampshire, Texas, and Utah.^{xiv}



Source: Brennan Center for Justice

Supporters of laws to shorten various voting-related deadlines, impose stricter signature and voter ID requirements, and increase voter roll purges have argued that they are “designed to begin to bring back confidence of our voters back into our election system.”^{xv} Others would disagree and note that the 2020 election was conducted successfully under extreme stresses, including record voter turnout, ideological division, an economic crisis, and a pandemic. While technology may not be able to prevent politicians and media members from undermining confidence in U.S. voting systems without evidence, implementing an open, transparent, blockchain-based voter roll system, could be instrumental in improving the accuracy of voter rolls and increasing trust in elections.

ⁱ <http://www.electproject.org/2020g>

ⁱⁱ <http://electionlab.mit.edu/sites/default/files/2020-12/How-we-voted-in-2020-v01.pdf>

ⁱⁱⁱ Id

^{iv} <https://apnews.com/article/ap-fact-check-donald-trump-georgia-elections-atlanta-c23d10e5299e14daee6109885f7dafa9>

^v <https://www.bbc.com/news/election-us-2020-54874120>

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- vi <https://www.azsenaterepublicans.com/cyber-ninjas-report>
- vii <https://advances.sciencemag.org/content/7/8/eabe4498>
- viii <https://epic.org/privacy/drivers/>
- ix <https://advances.sciencemag.org/content/7/8/eabe4498>
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- xii <https://oig.ssa.gov/newsroom/congressional-testimony/march16-hsgac>
- xiii <https://www.gao.gov/products/gao-14-46>
- xiv <https://www.brennancenter.org/our-work/research-reports/voting-laws-roundup-october-2021>
- xv <https://www.nbcnews.com/politics/elections/georgia-republicans-are-pushing-dozens-election-integrity-bills-black-voters-n1259687>