# #RightWayVoting

July 17, 2024

# **EARLY vs ELECTION DAY voting**

Best to Worst	When	Pros	Cons
Safest	Election Day	You may find out if your voting identity was previously stolen. Your ballot can't get intercepted along the way to the polling location. Citizen Unity and Social Restoration, standing side-by-side your fellow citizens. Election Day Exit Polling is much easier to implement in order to compare the election-day results with the exit-polling results.	None

Safer	<b>Close to</b> Election Day	Convenience for those that are unable to vote on Election Day without showing hand early	Something could happen to your ballot before it makes it to tabulation day. Election results can be estimated before polls close, allowing last-minute FEEDBACK LOOP manipulation. Your envelope could be thrown out by someone and your ballot never counted.
Unsafe	Early	None	Something could happen to your ballot before it makes it to tabulation day.  Election results can be estimated before polls close, allowing easy FEEDBACK LOOP manipulation.  Your envelope could be thrown out by someone and your ballot never counted.

# MAIL BALLOTS

## Mass Mail Ballot State

■ Vote In-Person — bring your unopened mail ballot with you

#### Pros

- If you are told that you already voted by mail, you have real evidence to expose/address it and file an identity theft complaint with Sheriff prior to election day
- You eliminate time/space between events, and therefore reduce the election abuse surface

#### Cons

None

### Vote by Mail

- Pros
- You can be lazy

#### Cons

- You increase the election abuse surface
- Bad actors know when you return your ballot using the mail ballot tracking system to feed their election model
- Your identity is directly connected to your ballot (violates voter secrecy) via the barcode keep in mind that not all states use a secrecy sleeve, for instance, Colorado.
- Your party affiliations is often shown on the envelope (sometimes covertly)
- There is no guarantee that your ballot won't be swapped out for another
- There is no guarantee that your ballot will ever make it to be counted

## Non-Mass Mail Ballot State

#### Vote In Person

### • NOT Request Mail Ballot

- Pros
- You don't give them data to substantiate use of mail ballots
- Less mail ballots in circulation results in smaller attack surface
- If a mail ballot is shown as having been sent, you can expose/address it and file an identity theft complaint with Sheriff prior to election day
- If one or more mail ballot shows up anyway, you can expose/address it prior to election day (and bring with you on election day to PROVE you didn't vote with it)
- If a mail ballot is shown as being received, you can expose/address it and file an identity theft complaint with Sheriff prior to election day
- County Mail in tracking database
  - If a mail ballot is recorded as having been sent that shouldn't have been, election officials can see it and deal with it prior to election day
  - If a mail ballot is recorded as being received that shouldn't have been sent, election officials can see it and deal with it prior to election day

• When arriving on Election Day, if you are told you already voted and you bring your sealed mail ballot in your hand, you expose/address it and file an identity theft complaint with Sheriff

#### Post-election voted lists

- If a mail ballot is recorded as having been sent, you can expose it
- If a mail ballot is recorded as being received, you can expose it
- Exposed voter identity theft is great evidence to support not being able to certify an election
- Cons
- None

## Opt-Out of Mail Ballot (where possible)

- Pros
- You demonstrate that citizens don't want mail ballots
- Less mail ballots in circulation results in smaller attack surface
- If one or more mail ballot shows up anyway, you can expose/address it prior to election day (and bring with you on election day to PROVE you didn't vote

with it)

- Public-facing Mail in ballot tracking system (pre-election-day)
- If a mail ballot is shown as having been sent, you can expose/address it and file an identity theft complaint with Sheriff prior to election day
- If a mail ballot is shown as being received, you can expose/address it and file an identity theft complaint with Sheriff prior to election day
- County Mail in tracking database
  - If a mail ballot is recorded as having been sent, election officials can see it and deal with it prior to election day
  - If a mail ballot is recorded as being received, election officials can see it and deal with it prior to election day
  - When arriving on Election Day, if you are told you already voted and you bring your sealed mail ballot in your hand, you expose/address it and file an identity theft complaint with Sheriff

## Post-election voted lists

- If a mail ballot is recorded as having been sent, you can expose it
- If a mail ballot is recorded as being received, you can expose it

- Exposed voter identity theft is great evidence to support not being able to certify an election
- You may get assigned a higher voting propensity which would make your vote less attractive to abuse

#### Cons

None

### Request Mail Ballot but still Vote in Person

- Pros
- If you don't receive your mail ballot you know it has been 'lost'

#### Cons

- If you go in to vote in person, but you have requested a mail ballot, you may be forced to vote a provisional ballot instead, which may not be tabulated.
- If you don't receive your mail ballot, you have put another phantom ballot into circulation
- Ballots lose chain of custody as soon as they are sent out
- You put more mail ballots in circulation increasing election attack surface
- You provide evidence that can be used to justify the receipt of a mail ballot in your name
- You provide feedback to bad actors that raise your voting propensity score used

- to decide which records to use for ballot injection
- You put yourself at risk being able to vote on a non-mail ballot on election day, and your in-person vote could end up provisional
- Election staff may force you to use your mail ballot (less chain of custody and far more abuse vectors) to vote in person instead of depositing your nonidentifiable ballot in a ballot box.

## Vote by Mail

- Pros
- You can be lazy

#### Cons

- You increase the election abuse surface
- Bad actors know when you return your ballot using the mail ballot tracking system to feed their election model
- Your identity is directly connected to your ballot (violates voter secrecy) via the barcode keep in mind that not all states use a secrecy sleeve, for instance, Colorado.
- Your party affiliations is often shown on the envelope (sometimes covertly)
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## DROP BOXES

- Isolated Not at your County polling place
  - Pros
- None
- Cons
- No chain of custody
- There is no guarantee that your ballot won't be swapped out for another
- There is no guarantee that your ballot will ever make it to be counted

## At County Polling Place

- Pros
- More secure than isolated
- Better chain of custody than isolated
- Cons
- Less chain of custody than traditional voting on paper
- You increase the election abuse surface
- Bad actors know when you return your ballot using the mail ballot tracking system to feed their election model
- Your identity is directly connected to your ballot (violates voter secrecy) via the barcode keep in mind that not all states use a secrecy sleeve, for instance, Colorado.

- Your party affiliations is often shown on the envelope (sometimes covertly)
- There is no guarantee that your ballot won't be swapped out for another
- There is no guarantee that your ballot will ever make it to be counted

# **Comparative Analysis**

To determine the safest method, I compare the methods based on exposure to known and unknown vulnerabilities and the feasibility of exploitation, assuming typical U.S. safeguards (paper trails, audits, verification) are in place but could have gaps.

## • Exposure to Known Vulnerabilities:

- Mail-In (Early or Election Day): Most exposed due to multiple touchpoints (voters, postal services, drop boxes, processing centers). Interception, theft, or forgery is possible. Errors, small-scale fraud, and large-scale fraud are possible.
- In-Person (Early or Election Day): Less exposed, as ballots are cast and stored in controlled environments. Electronic systems risk hacking, but paper backups and proper chain of custody and audits can limit impact. Insider fraud is possible.

## • Exposure to Unknown Vulnerabilities:

- Mail-In: Higher risk due to complexity (e.g., postal systems, drop boxes, voter databases). Hypothetical attacks like AI-driven forgery or coordinated theft could exploit undiscovered flaws in distributed processes.
- In-Person (Electronic): Moderate risk due to potential software or hardware flaws in voting machines. Complex code or supply chain attacks could introduce undetectable issues.
- In-Person (Paper): Lowest risk, as simple paper ballots avoid technological vulnerabilities. Unknown risks are limited to physical tampering or novel social engineering.

## - Ease of Exploitation:

- Mail-In: Small-scale exploitation (e.g., stealing a few ballots) is easier but unlikely to affect outcomes. Large-scale fraud can significantly impact elections.
- In-Person (Early): Extended timeline increases opportunities for tampering or hacking, though proper audits can catch some issues. Insider fraud needs coordination.
- In-Person (Election Day): Short timeline limits exploitation windows, especially for outsiders. Insider fraud is possible but heavily constrained by immediate counting and oversight. (Count Where Cast!)

## Safeguard Effectiveness:

 All methods benefit from audits, paper trails, and verification, but in-person voting simplifies chainof-custody and reduces external touchpoints (e.g.,

- postal services).
- Election Day in-person voting minimizes storage time, reducing risks of tampering or loss compared to early voting.

# Safest Voting Method

Election Day In-Person Voting with Paper Ballots is the safest method against potential vulnerabilities and exploitation, for these reasons:

- Minimized Exposure: The single-day process reduces the time window for attacks, limiting opportunities for both known (e.g., hacking, tampering) and unknown exploits compared to early voting or mail-in systems.
- **Simpler System:** Paper ballots avoid technological vulnerabilities (e.g., software bugs, hardware tampering) that electronic systems face, reducing unknown risks. Hand-counting ensures accuracy.
- Controlled Environment: Voting and counting occur in supervised polling stations, minimizing external touchpoints (e.g., postal services) and simplifying chain-of-custody compared to mail-in voting.
- Auditability: Paper ballots provide a verifiable record, making it easier to detect and correct errors or fraud compared to electronic-only or distributed mail-in systems.
- Unknown Risk Mitigation: By avoiding complex technology and extended timelines, this method limits exposure to hypothetical flaws in software, hardware, or distributed processes.

#### Caveats

- Assumption of Safeguards: This conclusion assumes basic safeguards like voter ID, secure polling stations, chain of custody records, and audits are in place. Without them, no method is safe.
- Local Variations: Security varies by jurisdiction. A poorly managed polling station may be less secure, but the impact of issues is typically contained.
- Access Trade-Offs: Election Day in-person voting may reduce accessibility for some (e.g., those with work conflicts), but the prioritizes safety for all voters over convenience of some.
- Unknown Unknowns: No method is immune to completely unforeseen exploits (e.g., a novel attack on voter psychology). Paper-based, in-person voting minimizes technological risks but not human or physical ones.

## Rankings

- 1. Election Day In-Person (Paper Ballots): Safest due to simplicity, short timeline, and minimal technological risks.
- 2. Early In-Person (Paper Ballots): Slightly less safe due to longer storage time, increasing tampering risks.
- 3. Election Day In-Person (Electronic with Paper Trail):
  Based on blind trust and vulnerable to technological abuse and flaws.
- 4. Early In-Person (Electronic with Paper Trail): Even more exposure due to extended timeline.
- 5. **Election Day Mail-In:** Distributed process increases touchpoints, but shorter window limits some risks.
- 6. Early Mail-In: Most vulnerable due to multiple

touchpoints, longer timeline, and reliance on external systems.

## Conclusion

Election Day in-person voting with paper ballots is the safest method, as it minimizes known and unknown vulnerabilities by using a simple, controlled, and auditable process with a short timeline. While no method is invulnerable, this approach reduces exposure to technological, distributed, or prolonged risks, making exploitation harder for both known and hypothetical attacks.

\* If you have any input on the above, PLEASE feel free to contact us directly.