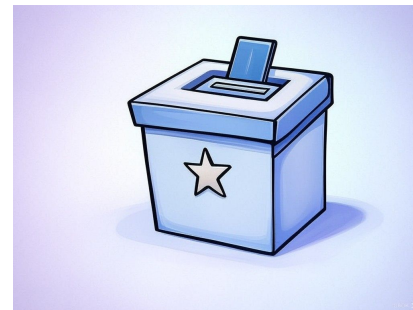# Status of VA Election Systems

Feb 2025

EPEC: Who we are / What we do

*E*lectoral *P*rocess *E*ducation *C*orporation

501(c)3 encouraging voter participation and education, process & data transparency

- "MVP" Data (for legally authorized recipients of election data under VA law)
    - Cleaned-up, standardized & normalized list maintenance data purchased directly from ELECT
    - Additional analysis and enhanced output datasets
    - Access to historical data archive

- Poll watcher team digital forms and tools

- Daily Absentee List (DAL) Metrics daily tracking and analysis

- Public engagement, newsletter and technical blog posts … and more

Multiple (~2 dozen) locality teams have been using our poll watcher forms, resources, MVP data products to enable their election related efforts.

https://epec.info
https://digitalpollwatchers.org

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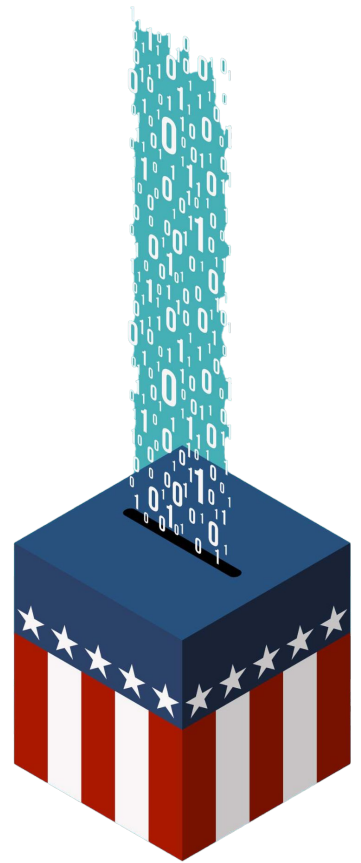
Role & Rights of Citizens, Candidates & Parties

1. Virginia citizens, candidates, and political parties have a fundamental ***right to access***, ***right to verify*** and a ***right to challenge*** state voter records.

   a. Current access restrictions, increasing lack of transparency, prohibitive pricing, accumulated error + technical debt, bad policy/law, bad implementation decisions (such as SDRs, poor data mgmt, lack of training, etc) all limit citizen oversight and serve to *dilute and infringe upon those rights.*
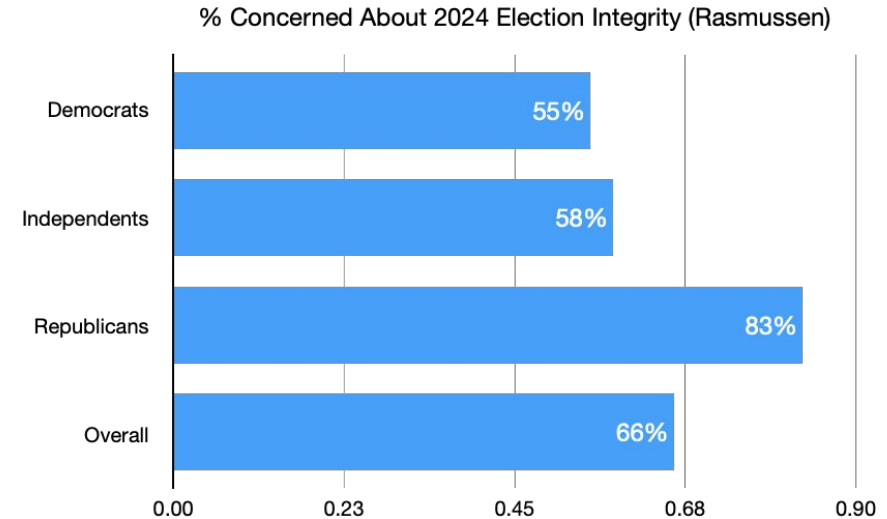
2. Federal law ***requires*** states to keep ***accurate*** voter information. 52 U.S.C. § 20501(b)(4)

3. Federal law also ***requires*** that the State ***must*** make available for ***public*** inspection ***all*** records concerning election implementation and activities 52 U.S.C. § 20507(i)(1).

4. Ability for public to inspect is ***critical*** to proper functioning of our elections and a healthy republic.[see notes]

% Concerned About 2024 Election Integrity (Rasmussen)

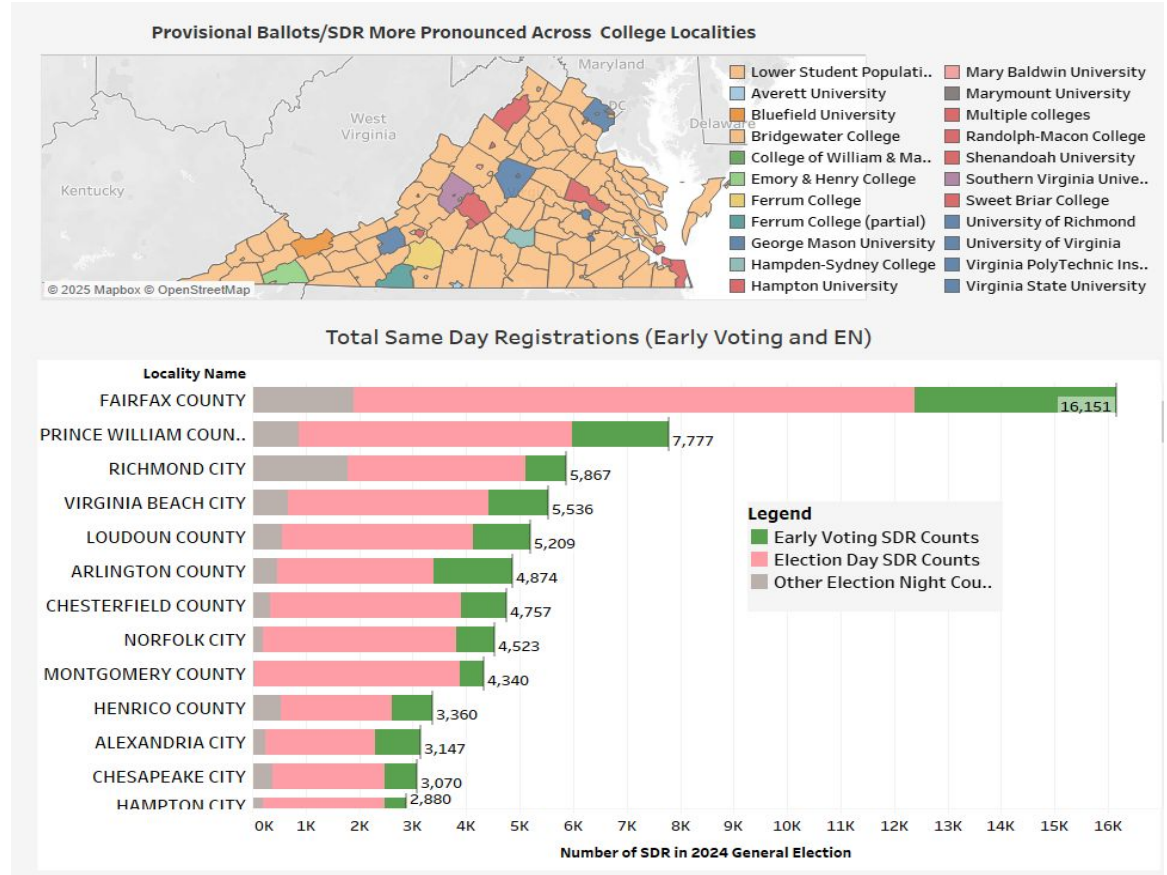|	
Democrats	55%
Independents	58%
Republicans	83%
Overall	66%

Current SDR policy and practice are problematic

Over **123,000** SDR's in 2024, with **85,000** on election day!

EPEC performed [anonymous survey of registrars and electoral board members](#), and responses favoring repeal/changes to SDR. (Mirrors ELECTs official survey results)

Many SDRs associated with non-resident students, incomplete addresses, etc.
ex// _1317 RVL records with simply "1 Hayden Dr" (VSU) listed as residence as of Feb 1 RVL_

Untenable, and _practically impossible_ for registrars to accurately and adequately vet, _or_ for citizens, candidates or parties to effectively challenge. No timely or usable data streams from ELECT, etc.
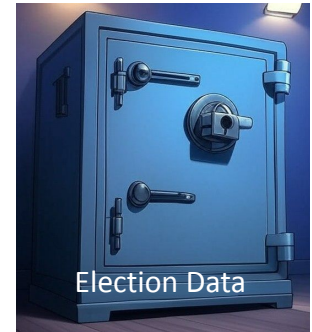

Provisional Ballots/SDR More Pronounced Across College Localities

Legend:
- Lower Student Populati..
- Averett University
- Bluefield University
- Bridgewater College
- College of William & Ma..
- Emory & Henry College
- Ferrum College
- Ferrum College (partial)
- George Mason University
- Hampden-Sydney College
- Hampton University
- Mary Baldwin University
- Marymount University
- Multiple colleges
- Randolph-Macon College
- Shenandoah University
- Southern Virginia Unive..
- Sweet Briar College
- University of Richmond
- University of Virginia
- Virginia PolyTechnic Ins..
- Virginia State University

© 2025 Mapbox © OpenStreetMap

Total Same Day Registrations (Early Voting and EN)

Locality Name	Number of SDR in 2024 General Election
FAIRFAX COUNTY	16,151
PRINCE WILLIAM COUN..	7,777
RICHMOND CITY	5,867
VIRGINIA BEACH CITY	5,536
LOUDOUN COUNTY	5,209
ARLINGTON COUNTY	4,874
CHESTERFIELD COUNTY	4,757
NORFOLK CITY	4,523
MONTGOMERY COUNTY	4,340
HENRICO COUNTY	3,360
ALEXANDRIA CITY	3,147
CHESAPEAKE CITY	3,070
HAMPTON CITY	2,880

Legend
- Early Voting SDR Counts
- Election Day SDR Counts
- Other Election Night Cou..

VSU "1 HAYDEN DR" Removals

1. 1497 RVL records with invalid "1 HAYDEN DR" registration address in the 11-20-2024 RVL

   a. Reports indicate there were large numbers of students using SDR process and "1 HAYDEN DR" address on election day.

2. 184 of those were removed between 11-20-2024 and 02-01-2025, 4 added. New total of 1317.

   a. Not changed or corrected. Removed.

   b. Unable to accurately determine if these removed records are associated with votes cast in 2024 Nov General, as "Voter Credit" assignment has 90 day window, and removals from RVL also remove VHL records.

3. Chart at right shows distribution of the registration duration of those 184 records that were removed.

4. Statewide, there were 396 _new_ registrations added between 09-01-2024 and 11-20-2024 and then subsequently removed by 02-01-2025. We cannot accurately determine if these 396 voted in nov 2024 election as VHL data was also purged
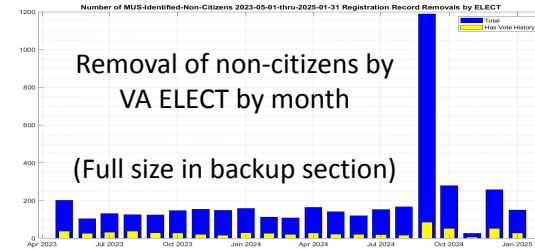

Voter Registration Duration for "1 HAYDEN DR" records removed between 11-20-2024 and 02-01-2025
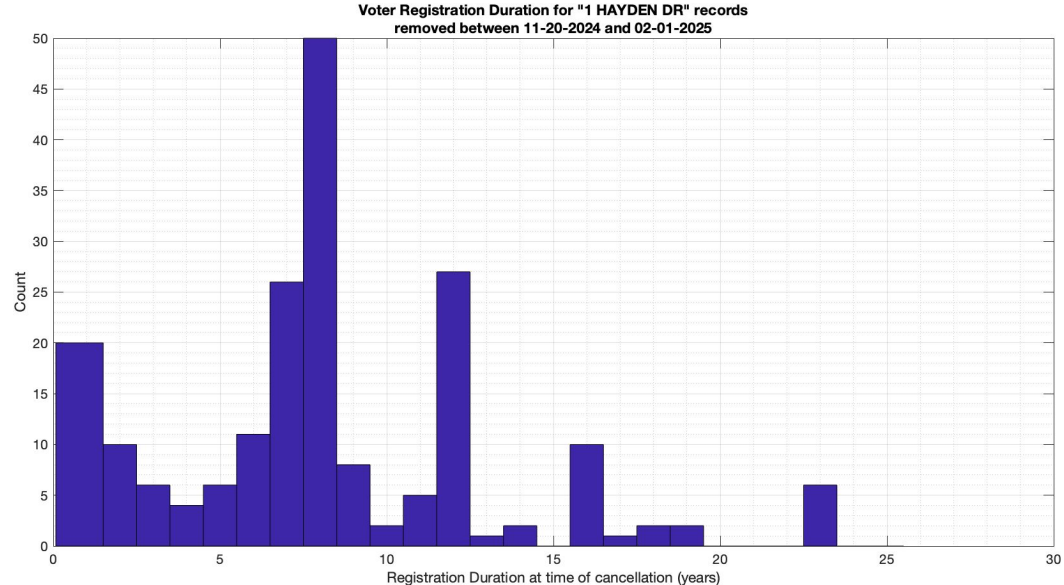
Access and Cost of Data Issues:

1. VA restricts access to specific groups and organizations

2. ~$30K / year spent by EPEC *just* to purchase minimum "public" data sets from ELECT [see notes]

3. Opaque and seemingly arbitrary pricing

4. Requirements to abide by an NDA … for what is *supposed* to be "public" data.

5. VA is withholding required data fields (DOB) in violation of federal NVRA law, and in violation of a 2012 VA court order:

    a. NVRA Notice to ELECT – RITE representing EPEC
        i. "... the Eastern District has already issued an order binding ELECT, that Section 8(i) requires it to disclose full birthdates when producing voter registration records. *Project Vote v. Long, 889 F. Supp. 2d 778 (E.D. Va. 2012).*"
        ii. " … Accordingly, "to the extent that any Virginia law, rule, or regulation forecloses disclosure" of voter birthdates, such law is "preempted by the NVRA." Id. at 782.3"
        iii. https://riteusa.org/wp-content/uploads/2024/10/NVRA-Violation-Notice-Electoral-Process-Education-Corporation-web.pdf

Election Data

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# Voter Database Quality & Implementation Issues:

1. Basic data security, standardization and best practices severely lacking in VERIS, which causes multiple derivative issues in data and processes [see notes]

   a. Duplicate records with different Voter ID's (as of Feb 2025)
      i. 1,136 pairs of records with same (Full Name + Sex + YoB + Addr)
      ii. 29,166 pairs of records with same (Full Name + YoB)
      iii. 301,902 pairs with a single character diff (Full Name + YOB)

   b. Deceased Voters. ~300 found and successfully removed through EI teams using EPEC data in multiple localities over last year, in addition to ELECT efforts.

   c. Non-Citizen voters (as of Feb 2025): 4,168 removals, 640 w/ vote hist

   d. Voter records over 115 years of age, etc. (x38 Jan -> x31 Feb)

2. Lack of transparency in SVRS (new VERIS) dev, requirements, implementation and timeline

3. SSN's and citizenship only partially verified and validated [see notes]

Egregious example! (side story)

Number of MUS-Identified-Non-Citizens 2023-05-01-thru-2025-01-31 Registration Record Removals by ELECT

Removal of non-citizens by VA ELECT by month

(Full size in backup section)

2024 Seat	Margin
H 41	183
H 57	715
H 71	667
H 82	78
H 89	521
S 24	725

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Procedure and Policy Issues:

1. Various combinations of policies and practices create "Logically Incoherent" situations

2. Challenging and costly for localities to implement 45 days of early voting

3. SDR/Provisional policies pose challenges to implementation by registrars + local BOEs and deprive citizens, candidates and the public's effective ability to observe and challenge (_see slides 4-5_)

4. Reliance on DMV causes many issues. DPC/DL distinction, tech issues, etc. [see notes]

5. Nonuniform, often improper, and inconsistent document and data access & handling between localities.

   a. 99 out of 133 localities have violated one or more records laws between 11-11-2024 and 1-13-2025, per our state-wide FOIA project and documented interactions

   b. VA Leg can/should remove "Additionally, Title 24.2 is controlling when there is any conflict with FOIA" language from § 2.2-3703(B), impose accountability and training

6. Bad practices and security risks, certification issues w.r.t. voting machines, electronic systems & data handling
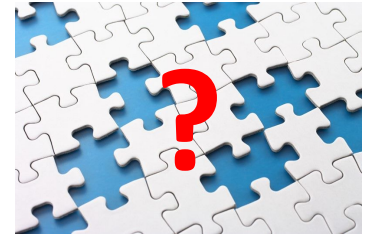
Ex// The combination 90 day Voter Credit Window + Registrant Removal Practices make reconstructing and validating the # of ballots cast in any given election from purchased ELECT data technically impossible.

Citizens should be able to acquire VHL data and sum to achieve the same numbers as official reported results.

That simple function is currently not possible due to data management policies and practices. This is just 1 example.

Staffing Issues:

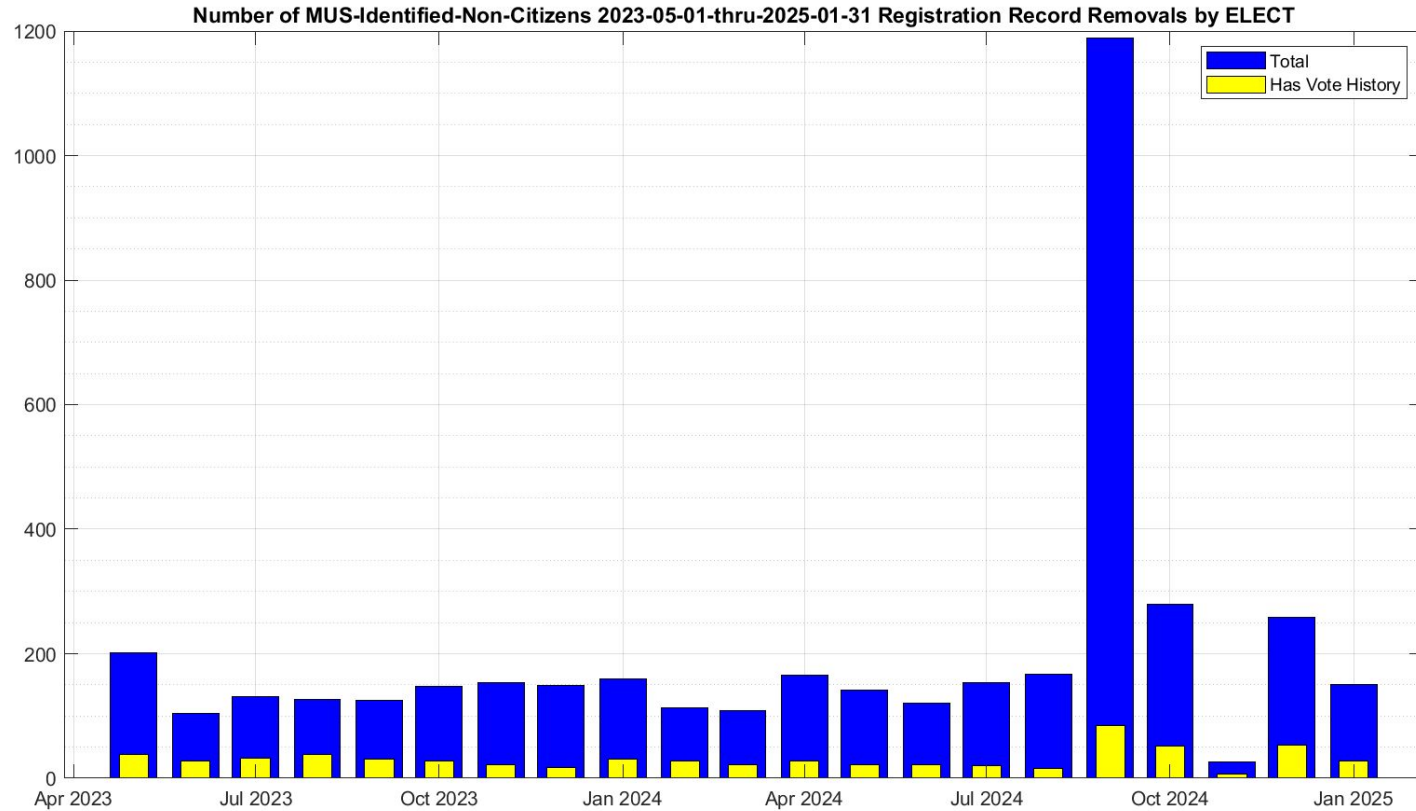Many good people in elections administration positions, however:

1. Many localities are underfunded and understaffed

2. Very few have technical background or tech-competent support staff, but are expected to manage, secure and administer increasingly complex systems and fast moving technologies.

    a. Results in too much reliance on equipment vendors, and inability to inspect or verify proprietary systems

    b. Impedes citizens rights to obtain SORs, CVRs, Technical Reports, etc.

3. Confusing legislation or incorrect direction, policies & opinions from ELECT

4. Decades of bad data and policies built-up in system, difficult to purge and causes derivative effects

5. Constant election cycles makes it difficult to "catch up", do proper maintenance and training, etc.

Thank You.

Questions?

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Backup material

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Number of MUS-Identified-Non-Citizens 2023-05-01-thru-2025-01-31 Registration Record Removals by ELECT

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RITE / DOB Issue

https://epec.info/rite-alerts-va-on-election-law-violation/

RITE President and CEO Derek Lyons issued the following statement:

"Virginia must reverse course and comply with federal law, which requires it to produce full birthdates of every person registered to vote in the Commonwealth to groups like EPEC that request it. In fact, in 2012, a court ordered Virginia to do just that so organizations can better evaluate the accuracy of the state's voter registration records. Virginia's sudden policy change is part of a troubling trend of states trying to impair the ability of organizations to assess the currency and accuracy of their voter rolls. Courts have consistently blocked these unlawful attacks on transparency, and we are confident they will do so again here if Virginia does not quickly course correct."

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DOB also was still listed on ELECT Client Services, but removed from previously purchased ($$) datasets.

ELECT still

Had full DOB

On client services

Website when they

Abruptly changed

Policies on DOB in

Sept./Oct.

- **Registered Voter List (RVL)** *and Newly Registered Voter List (NRV)* – full name, residence address, mailing address, gender, date of birth, registration date, date last registration form received, registration status, locality, precinct, voting districts and voter identification number.
- **List of Those Who Voted (LTWV)** – full name, residence address, mailing address, gender, date of birth, registration date, date last registration form received, registration status, locality, precinct, voting districts, voter identification number, election date, election type, and whether the voter voted in-person or absentee.
- **Monthly Update Subscription (MUS)** – full name, residence address, mailing address, gender, date of birth, registration date, date last registration form received, registration status, locality, precinct, voting districts, voter identification number, and transaction details (add/remove/change and date of transaction).
- **Vote History List (VHL)** – full name, gender, date of birth, registration date, date last registration form received, registration status, locality, precinct, voting districts, voter identification number, election date, election type, and whether the voter voted in-person or absentee. Grouped by election, chronologically.
- **Daily Absentee List (DAL)** – full name, residence address, mailing address, locality, precinct, voting districts, voter identification number, election date, voter type, application receipt date, application status, ongoing (application reason), ballot status, ballot status reason, ballot receipt date.

Select VA Election Offenses

§ 24.2-1001 Willful neglect or corrupt conduct

§ 24.2-1004 Illegal voting and registrations

§ 24.2-1011 Ballot not to be carried away

§ 24.2-1012 Offenses as to absent voters

§ 24.2-1015 Conspiracy against rights of citizens under this title

§ 24.2-1016 False statements; penalties

§ 24.2-1017 Penalties when not specifically provided elsewhere

Notes for Slide 2

ELECT does not enable purchase of historic data snapshots. You get what you get the day you get it from ELECT.

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Notes for Slide 3

Entire philosophy of our electoral system, and gov foundation, is based on the idea of public transparency and a "zero-trust" adversarial electoral system.

From Grok: The concept of "zero-trust" in the context of U.S. elections, particularly when combined with the adversarial nature of balloting, introduces additional layers to the philosophical underpinnings:

Skepticism and Vigilance: *__Philosophical Basis__*: This aligns with a philosophical tradition of skepticism, notably from thinkers like David Hume, who emphasized the need for constant questioning and verification of claims to knowledge or truth. *__Reasoning__*: In elections, zero-trust implies that no aspect of the process should be taken for granted. Every step, from voter registration to vote counting, must be scrutinized to ensure integrity. This skepticism is meant to combat potential fraud or error, reflecting a belief that human systems are fallible and require checks to maintain public trust.

Transparency and Accountability: *__Philosophical Basis__*: This harkens back to Enlightenment ideas of government by the consent of the governed, where transparency is key to accountability, as articulated by thinkers like Immanuel Kant in his discussions on public use of reason. *__Reasoning__*: A zero-trust approach demands transparency at every level to verify that the electoral process accurately reflects the will of the people. This transparency is seen as vital for maintaining the legitimacy of the government, ensuring citizens can trust the outcome of elections.

Security and Integrity: *__Philosophical Basis__*: From a security perspective, this can be related to the concept of "defense in depth," where multiple layers of security are not just precautionary but philosophical commitments to safeguard the democratic process. *__Reasoning__*: By assuming no trust in any single element of the election process, a zero-trust model aims to create a system where multiple checks and balances ensure the integrity of each vote. This approach reflects a philosophical commitment to protecting democracy against both internal and external threats.

Empowerment through Participation: *__Philosophical Basis__*: Drawing from participatory democracy theories, where active involvement of citizens in governance is crucial, as discussed by philosophers like Rousseau or more contemporary thinkers like Carole Pateman. *__Reasoning__*: Zero-trust elections encourage greater civic engagement, as citizens might be more involved in monitoring, volunteering for, or understanding the electoral process. This participation is seen as a form of direct democracy, enhancing the democratic ethos by making every citizen a potential guardian of the electoral process.

Resilience Against Corruption: *__Philosophical Basis__*: This can be linked to the philosophy of anti-corruption and the moral imperative to prevent the misuse of power, as advocated in various forms throughout political philosophy, notably by Machiavelli in his discussions on maintaining power through virtue. *__Reasoning__*: By assuming distrust, the system is designed to be resilient against corruption. It philosophically acknowledges human tendencies towards power abuse or error, thus instituting mechanisms like audits, recounts, and public access to election data to counteract these risks.

Public Trust as a Social Good: *__Philosophical Basis__*: This ties into social contract theory where trust in institutions is part of the social fabric necessary for a functioning society, as conceptualized by Hobbes, Locke, and Rousseau in different ways. *__Reasoning__*: A zero-trust approach aims to foster trust not by assuming it but by proving it through rigorous, transparent processes. The adversarial and zero-trust elements together work towards ensuring that the electoral outcome is beyond reasonable doubt, thus reinforcing the social contract.

In essence, the philosophical reasoning behind adversarial, zero-trust election processes in the U.S. builds on democratic ideals by emphasizing skepticism, transparency, security, and public engagement as core to maintaining electoral integrity and the broader trust in democratic institutions.

Notes for Slide 6

2.a   RVL (2x yr @ ~$6K ea.), VHL (1x/yr @ ~$6K), MUS (~$12K/yr), ~$750 for DAL for each statewide primary or general election

2.b   Five different code sections make election related data available "at a reasonable cost" but the lack of clear definition or fee schedule and structure leads to inconsistent application of costs across the state bordering on predatory practices and censorship

2.c   The word "Reasonable" controls purchase cost of any data from any locality or state office. "Reasonable" appears 3740 times in over 30 unique code titles. "Reasonable" is associated with a clear definition two times out of 100 independent definition pages, but is never clearly defined as a stand alone word.

2.d   That's ~$30K / year we _could_ have been spending on actual data analysis, get out the vote efforts, software + hardware, legal, etc. … for what is supposed to be public data!

2.e   This does not include FOIA production fees, other commercial datasets, etc.

Notes for Slide 8

Quality issues are a de-facto "Dilution of Rights"

1.a.iv   <u>1842</u> pairs with same (Full Name + YOB) but different tokens
1.a.v   <u>480</u> pairs with only punctuation differences
1.a.vi.1   Note: recent removal of full DoB info by ELECT increases false positives
1.c.iii   Referrals sent by multiple counties to AG and CA's. No definitive action taken, to our knowledge.
1.e   Little-to-no input standardization and normalization, lots of "garbage" data
1.f   Inconsistencies between localities as to information collected and populated
1.g   Not requiring full legal name, Not requiring actual address for SDR's, etc

3.a   Note: Recent DOGE revelations about duplicates in SSN databases seem relevant here as well, etc.
3.b   SSA now only requires first, last name per public disclosures
3.c   Sub-routine to check for if a duplicate SSN exists in VA Voter ("VERIS") database, but not always utilized, and was fully disabled for years under McAuliffe and Northam. VERIS does not attempt to validate the SSN against the person, only check if 9-digit number is associated with any other records.
3.d   SAVES database not fully utilized, even though required by law.

Notes for Slide 9

4.a   DMV interface with ELECT has been historically problematic and buggy, and has been reported to be a primary source of many of the errors observed in the states election databases by multiple sources. Including technical and administrative issues and non-compliance with use of SAVES database.

4.b   Confusion over Driver Privilege Cards vs Drivers License vs Limited Duration Cards, etc