

'The Science' Eliminated Our Elections

August 26, 2026



How Institutional Research Drove the Devolution of American Elections

The Mechanism: Prestigious universities and commissions lend their reputations to studies that measure a problem in a narrow frame, then supply the data-driven rationale for a predetermined policy migration. The term for this is **prestige laundering**. The institution's name transfers credibility to a conclusion the funder already wanted. Intent is never asserted. The pattern of study, funding, and structural outcome is documented instead.

- **Traditional hand-counted paper ballots:** For most of American history the dominant method was the paper ballot marked by the voter and counted by hand in public view. Citizens could watch the count, handle the ballots, and verify the totals directly. The entire process remained

fully observable and under citizen oversight.

- **Mechanical lever machines:** These machines later became widespread and represented the first significant departure from full transparency. Voters saw only the exterior shell. The counters were internal gears that citizens could not observe. Documented manipulation methods included altering the internal gears to change recorded totals, pre-loading votes before polls opened, and using pre-printed zero tapes that showed zeros even though the counters had already been set to non-zero values. Roy G. Saltman's 1988 NBS report identified these exact vulnerabilities: incorrect initial setting of counters, casting of extra votes by party workers, and the absence of any audit trail from individual voter to result. The machines were a black box by design.
- **1975 NBS report:** The National Bureau of Standards (NBS), now the National Institute of Standards and Technology (NIST), published *Effective Use of Computing Technology in Vote-Tallying* (NBSIR 75-687), authored by Roy G. Saltman. It was commissioned under an interagency agreement with the General Accounting Office's Office of Federal Elections. The report identified the lack of technical standards at the state and local level and recommended federal guidelines for accuracy and security in computerized vote tallying.
- **1988 NBS report:** Saltman published *Accuracy, Integrity, and Security in Computerized Vote-Tallying* (NBS SP 500-158), funded by the John and Mary R. Markle Foundation. It assessed relative vulnerabilities of punch-card, mark-sense, and direct-recording electronic systems and recommended improved testing, partial manual recounts, and institutional changes. These reports later became the foundation for the voluntary federal standards that certified the machines purchased after 2002.

- **Pre-2000 drift:** From 1988 to 2000, counties gradually replaced paper and levers with optical scanners and direct-recording electronic (DRE) machines. The shift was local and incremental, not federally directed.
- **2000 and the residual-vote metric:** After the Florida recount, Caltech President David Baltimore and MIT President Charles Vest launched the Caltech/MIT Voting Technology Project (VTP) in December 2000. The initial team included MIT Professors Stephen Ansolabehere and Nicholas Negroponte, and Caltech Professors Thomas Palfrey and Jehoshua Bruck. Later members included R. Michael Alvarez, Charles Stewart III, Ronald Rivest, Jonathan N. Katz, Stephen Graves, Erik Antonsson, Ted Selker, and Alexander Slocum. The project was funded by the Carnegie Corporation of New York, under President Vartan Gregorian, and the John S. and James L. Knight Foundation.
- **The 2001 VTP report:** The project released *Voting: What Is, What Could Be*, which measured residual votes – overvotes plus undervotes – across technologies from 1988 to 2000. Punch cards and early DREs showed higher rates than optical scan and levers. The metric became the standard benchmark used by the Elections Performance Index (EPI) and the Brennan Center for Justice (BCJ).
- **Carter-Ford Commission:** The National Commission on Federal Election Reform (NCFER), organized by the University of Virginia's Miller Center of Public Affairs and The Century Foundation, was co-chaired by former Presidents Jimmy Carter and Gerald Ford. Co-chairs were Robert H. Michel and Lloyd N. Cutler. Vice-chairs were Slade Gorton and Kathleen Sullivan. Commissioners included Griffin Bell, Rudy Boschwitz, John Danforth, Christopher Edley Jr., Hanna Holborn Gray, Colleen McAndrews, Daniel Patrick Moynihan, Leon Panetta, Deval Patrick, Diane Ravitch, Bill Richardson, John Seigenthaler, and Michael Steele.

Executive Director was Philip D. Zelikow. The commission drew on the Caltech/MIT work and supplied recommendations to Congress.

- **Help America Vote Act of 2002 (HAVA):** The Help America Vote Act of 2002 (HAVA) was introduced in the House by Representative Robert W. Ney (R-OH) on November 14, 2001, with original cosponsors Steny Hoyer (D-MD), Roy Blunt (R-MO), Vernon J. Ehlers (R-MI), John L. Mica (R-FL), Chaka Fattah (D-PA), David E. Price (D-NC), James R. Langevin (D-RI), John Linder (R-GA), Alcee L. Hastings (D-FL), John T. Doolittle (R-CA), Jim Davis (D-FL), Thomas M. Reynolds (R-NY), Silvestre Reyes (D-TX), and Steve Buyer (R-IN). In the Senate, Christopher Dodd (D-CT) authored the companion legislation and Kit Bond (R-MO) was a principal partner in the negotiations. Mitch McConnell (R-KY) was instrumental in moving the bill through the Senate. The House Administration Committee, chaired by Vernon Ehlers, and the Senate Rules and Administration Committee handled the bill. HAVA banned punch cards and lever machines, created the Election Assistance Commission (EAC), required statewide voter-registration databases, and directed more than three billion dollars in federal funds toward certified electronic systems. Technical input on the voting-system standards and security provisions came from a small group of specialists. Roy G. Saltman, a retired National Institute of Standards and Technology (NIST) analyst and author of the 1975 and 1988 National Bureau of Standards (NBS) reports on computerized vote-tallying, testified before the House Science Committee in May 2001 and was recognized for material contributions to the 2002 Voting System Standards. Thomas R. Wilkey, Executive Director of the New York State Board of Elections and Chairman of the National Association of State Election Directors (NASSED) Voting Systems Board, served as a

continuous technical resource during the standards update. Brit Williams, Professor Emeritus of Computer Science at Kennesaw State College and a NASED Technical Subcommittee member, contributed specific language. Steve Freeman, a software consultant, and Jay W. Nispel, Senior Principal Engineer at Computer Sciences Corporation, also contributed to the Technical Subcommittee. Paul Craft, Computer Audit Analyst for the State of Florida, and David Elliott, Assistant Director of Elections for Washington, participated as well. The update was executed under contract by American Management Systems (AMS), with Senior Principal James Ward and Project Manager Dennis Berg recognized for their work. Harry Haury, a cybersecurity and workflow specialist with prior service at the National Security Agency (NSA), Central Intelligence Agency (CIA), Department of Defense (DoD), and Department of Homeland Security (DHS), served as a technical design consultant on the voting-system standards and security provisions. Stephen Berger chaired the IEEE Voting Equipment Standards Project 1583.

- **Post-HAVA consolidation:** By 2006 nearly all punch cards and levers were gone. Three private vendors – Election Systems and Software (ES&S), Dominion Voting Systems, and Hart InterCivic – now control roughly ninety percent of the market. The systems are largely private-equity owned and operate with limited public oversight.
- **Brennan Center studies:** The Brennan Center for Justice at NYU School of Law, through reports such as *The Machinery of Democracy* by Lawrence Norden, Jeremy Creelan, David Kimball, and Whitney Quesenbery, used the same residual-vote metric to document ballot-design defects and overvote losses. This reinforced the case for machine-based error correction rather than citizen-observable counting.
- **Elections Performance Index (EPI):** Pew Charitable Trusts

launched the index in 2013, following consultation with an advisory group of election officials and academic experts. In 2017, management passed to the MIT Election Data and Science Lab (MEDSL). Residual-vote rate remains one of its core indicators, so the original metric continues to frame what counts as a well-run election.

- **2016–2020 security turn and private funding:** After 2016, states moved toward paper records and ballot-marking devices. In 2020, the Center for Tech and Civic Life (CTCL), founded by Tiana Epps-Johnson, Whitney May, and Donny Bridges, distributed hundreds of millions of dollars in private grants to election offices under operational conditions that critics argued gave a private actor effective control. The funds came primarily from Mark Zuckerberg and Priscilla Chan. Twenty-nine states later restricted such funding.
- **Current state:** Citizens can no longer guarantee that only eligible voters cast ballots, and they have no independent way to verify that the published totals are an accurate aggregate of only eligible votes. The counting is performed by certified machines whose internal arithmetic can be checked, but whose recording of individual selections cannot be audited by the public.
- **The pattern:** Each study measured a real deficiency and each policy addressed that deficiency. The cumulative effect is a system that is opaque to the citizens it is supposed to serve.

The transformation did not happen in a single stroke. It was assembled piece by piece, and each piece was justified by a study that measured a specific and real deficiency then pointed toward a predetermined solution. The 1975 and 1988 National Bureau of Standards reports established the technical framework. The 2000 Caltech/MIT Voting Technology Project supplied the

data-driven rationale. The Help America Vote Act of 2002 provided the **federal funding and the mandate.** The post-HAVA vendor consolidation **locked in the structure.** The 2020 private-funding episode showed that private actors could still **shape administration** even after the federal framework was in place. No single law completed the transformation. The legislation was one node in a chain, and the chain is the story. This did not happen by accident. The same direction of change, the same institutional actors, and the same result repeated across decades. Accidents do not produce that pattern.

Many of the names are in this article. Many of the organizations are also listed. The dates are documented. The funding sources are identified. Everything needed to begin is already on the page. The question is no longer whether the pattern exists. The question is what else is connected to it. This is not a burden for one person to carry. It is an invitation for many. Every reader who follows a name, traces a funding source, or maps a relationship between an institution and a policy outcome adds a thread to the map. The people who built this system counted on citizens waiting for someone else to explain it to them. The opposite is the remedy. Start with the names in this article. Follow them forward and backward. Find the connections the official record does not draw. The map is incomplete because it has been waiting for you to draw it.

Our window to Reclaim our Elections is about to snap shut. We are in the middle of an Elections National State of Emergency that if ignored, will result in the end of this Republic. Brave actions must be immediately taken to RETURN ELECTIONS TO THE CITIZENS.

Get busy. Get loud. Now.

[The Declaration](#)

References

1. Saltman, Roy G. *Effective Use of Computing Technology in Vote-Tallying*. NBSIR 75-687 (also issued as NBS Special Publication 500-30). National Bureau of Standards, 1975/1978.
2. Saltman, Roy G. *Accuracy, Integrity, and Security in Computerized Vote-Tallying*. NBS Special Publication 500-158. National Bureau of Standards, August 1988.
3. Caltech/MIT Voting Technology Project. *Voting: What Is, What Could Be*. July 2001.
4. Ansolabehere, Stephen, and Charles Stewart III. "Residual Votes Attributable to Technology: An Assessment of the Reliability of Existing Voting Equipment." Caltech/MIT Voting Technology Project, March 2001 (later published in *Journal of Politics* 67, no. 2, 2005).
5. National Commission on Federal Election Reform (Carter-Ford Commission). *To Assure Pride and Confidence in the Electoral Process*. Final Report, July 2001. Organized by the University of Virginia Miller Center and The Century Foundation.
6. Norden, Lawrence, et al. *The Machinery of Democracy: Protecting Elections in an Electronic World*. Brennan Center for Justice at NYU School of Law, 2006 (book edition Academy Chicago Publishers, 2007).
7. Help America Vote Act of 2002, Public Law 107-252, 116 Stat. 1666 (signed October 29, 2002).
8. U.S. Election Assistance Commission and National Institute of Standards and Technology voluntary voting system guidelines and testing documentation (post-HAVA).
9. The Pew Charitable Trusts. Elections Performance Index (launched 2013; residual-vote rate as a core indicator). Methodology and data later transferred to the MIT Election Data and Science Lab (MEDSL).

10. MIT Election Data and Science Lab. Elections Performance Index data and methodology releases (2017 onward).
11. \Vendor market concentration data (ES&S, Dominion Voting Systems, Hart InterCivic) drawn from Election Data Services / Verified Voting / state certification records showing post-HAVA consolidation.
12. Center for Tech and Civic Life (CTCL). Public announcements and IRS Form 990 filings documenting the 2020 COVID-19 Response Grants funded primarily by Mark Zuckerberg and Priscilla Chan (approximately \$350–400 million distributed to local election offices).
13. Jones, Douglas W., and Barbara Simons. *Broken Ballots: Will Your Vote Count?* CSLI Publications, 2012 (detailed history of lever machines and subsequent systems).
14. Contemporary accounts and patents on the Myers / Gillespie mechanical lever machines (first official use Lockport, New York, 1892; widespread urban adoption by the 1930s).
15. Saltman's later writings and lectures summarizing the 1975 and 1988 findings and their influence on subsequent standards.