What Hath HAVA Wrought?
Consequences, Intended and Not, of the Post-*Bush v. Gore* Reforms

Charles Stewart III
Kenan Sahin Distinguished Professor of Political Science
The Massachusetts Institute of Technology
cstewart@mit.edu

Draft of April 7, 2011

The Help America Vote Act (HAVA)\(^1\) is the most important direct federal response to the 2000 electoral fiasco in Florida. HAVA had many provisions, some directly inspired by the controversy, others that came along for the ride. In addition to mandating certain changes in how states conducted federal elections, HAVA appropriated $3b for the improvement of voting systems, most of which went to purchase new voting machines.\(^2\)

It is natural to ask whether this was money well spent. More broadly, it is natural to ask whether elections are better administered in the United States, and whether the shortcomings targeted by HAVA have improved. It is the purpose of this paper to help address these questions.

But first, we must try to understand what problems were intended to be addressed by HAVA and how they were identified as problems in the first place. The Florida recount controversy featured shortcomings of the election system in Florida that almost everyone agreed to be problems, such as inconsistent criteria about recounting ballots, voting machines that malfunctioned, and ballots that were poorly designed. Specific features of HAVA address these precise problems. At the same time, other issues that did not feature prominently in the Florida drama, such as the difficulty that blind voters had in casting ballots independently or the possibility of voter impersonation, are also addressed by HAVA. Where did these provisions

---

\(^2\) The effective mandate to replace machines was achieved in two ways, through a program in Section 102 that funded the replacement of punch card and lever machines, and through restrictions in Section 301, which set standards for voting machines used in Federal elections. Although Section 301(c) allowed states to retrofit existing equipment to meet the new standards, all states with punch cards and lever machines accepted Section 102 funding.
come from, and what does the presence of provisions such as these say about the policy process in the realm of election administration?

Finally, major moments of lawmaking often provide the nucleus for new political movements to arise, in ways unanticipated by the lawmakers themselves. Examples in the recent history of election reform include concern about the use of computers in casting and counting ballots and efforts to require voters to produce photo identification in order to vote. HAVA seems to be implicated in movements such as these. How did this occur? Did it happen because of provisions of HAVA, or despite them?

Still, the core of this paper is a data-driven attempt to assess the consequences of the Help America Vote Act. In assessing the consequences of a piece of legislation, it is useful if something approaching legislative intent can be divined. However, like most complex legislation, assessing the goals and impact of HAVA is problematic. To help gain some traction in the effort to discern the goals behind HAVA, I begin with a relatively narrow focus, asking what Bush v. Gore revealed about problems with Florida’s election system. I next turn to an account of HAVA’s passage, to see how the concerns that were framed in the Florida context fared once they entered a larger national policymaking arena.

In the consideration of both Florida’s reform process and the congressional process that produced HAVA, an important theme arises about imported issues that get attached to a reform vehicle that is addressing a related problem about which there is a broad consensus. The design of HAVA was affected by new issues, to the point that these new policy concerns deflected attention in the subsequent politics of election administration.

After discussing how two major reform processes digested the election problems that were presented to them, I turn to the evidence about how HAVA made a difference in how
elections are run in the United States. I first examine the evidence — to the degree it exists — about the improvement of election administration along four domains that were clearly addressed in HAVA — voting machine accuracy, voter registration quality, access to voting by the disabled, and election fraud. I then examine two important unintended consequences of HAVA, namely the controversies over electronic voting and the movement to require photo identification at the polls. The conclusion provides an overall assessment of the achievements of HAVA while at the same time questioning HAVA’s continued relevance, in light of the rise of absentee voting, attacks on the Election Assistance Commission’s existence, and the current climate of fiscal austerity.

I. Florida and HAVA

How did contemporary observers initially diagnose the problems that were revealed in Florida? How did the political process transform those diagnoses into policy recommendations and law? What have been the consequences of these laws?

The story of how Florida responded to the recount controversy is an important place to start, of course, because it was Ground Zero of election breakdowns. Even after the controversy simmered down, the whole world continued to watch. Policymakers in the state, therefore, not only had reasons to act, but they also had reasons to appear responsive to a concrete set of problems. The political ambitions of Florida’s governor, Jeb Bush, along with his desire to redeem a reputation that had been besmirched by the controversy, boded well for pursuing a technocratic reform path. The immediacy and visibility of Florida’s situation resulted in its being the first state to confront the practical realities of the problems the recount controversy revealed.
HAVA, on the other hand, is a natural vehicle to examine if we want to see how national politics handled the problems presented first by Florida. Of course, the process leading to the passage of HAVA was different from what happened in Florida. HAVA’s passage involved national interests, and its most important deliberations occurred in a legislative setting, not in a reform commission. Also significant is that HAVA unfolded after most states had begun, and sometimes finished, their own study commissions. HAVA was a convenient place for interest groups to aim their efforts. Reform groups, such as the League of Women Voters, Common Cause, and the NAACP, certainly participated in state reform efforts. However, HAVA provided these groups, among others, a one-stop-shopping forum to press their cases about how elections could be improved. Therefore, if the Florida process was tailor-made for a technocratic approach to election reform, the process leading to HAVA was also suited for the incorporation of issues that were not prominent in Florida, nor had been prominent in any state. In the words of Schattschneider (1960), HAVA represented an expansion of the scope of conflict, as political actors tried to leverage Florida into a portfolio of election reforms that suited them.

Florida

To understand the degree to which HAVA was a direct response to the Florida recount controversy, it is useful to focus on the Sunshine State and the controversies that eventually gave rise to Bush v. Gore.

Bush v. Gore itself focused on the recount in Florida, and in particular, on whether the manner of the recount was constitutional; if it was unconstitutional, the question then became about finding the right remedy. Complicating the case was the matter of a series of statutory, and ultimately constitutional, deadlines that affected the casting and canvassing of the electoral vote, along with the inauguration of the president. These were the most politically charged of the
issues that arose in Florida. Because of the political hot potato presented by these issues, no federal legislation has been passed to address questions such as recounts and electoral disputes.⁵

Even if the Bush v. Gore episode did not lead to major legal changes in how disputed presidential elections are decided, it was still about a recount, and prominent recounts often produce policy change. Recounts often reveal the imperfections of election administration and provide rare windows-of-opportunity to correct them. Consider the case of Minnesota, a state with a reputation for well-run elections before the 2008 general election, which featured a recount in the Coleman-Franken senatorial contest. Among other things, that recount revealed shortcomings in how absentee ballots were counted locally, which later led to changes in Minnesota’s election law (Weiner 2010). What made Florida’s recount controversy so compelling, beyond the stakes involved, was the implication of voting technologies in so many of the material problems that surfaced. Machines failed, as was demonstrated by the presence of “pregnant chad.”⁴ Even when they seemed to work properly, some machines tended to find more invalid ballots than others, as was evidenced by higher residual vote rates among central-count optical scanners, compared to optical scanners that counted ballots in the precinct (Governor's Select Task Force on Election Procedures 2001, chart 4). Poor ballot design led to confusion, votes for the wrong candidates, and over-votes (Mebane 2004; Wand et al. 2001).

Of course, even when votes are cast on traditional paper ballots, the technology can intervene, if the voter makes an ambiguous mark or uses the ballot as an opportunity to editorialize about the candidates.⁵ What made these technology-related problems different was

---

³ On the inevitability of disputes similar to Bush v. Gore, see (Colvin and Foley 2010).
⁴ For an excellent discussion of the technical aspects related to producing pregnant and hanging chad, see Jones (2000).
⁵ An amusing recent example of how paper ballots can lead to editorializing was the votes cast for “Lizard People” in the 2008 Minnesota general election. See (Weiner 2010, location 2381, Kindle edition).
that voters could do precisely what they were instructed to do, and under normal circumstances, a certain fraction of votes would simply not be counted.  

As an immediate response to the recount controversy, Governor Jeb Bush appointed a task force on “election procedures, standards, and technology,” which was charged with reviewing these topics and making written recommendations about how policies and laws should be changed to improve Florida’s elections. It is perhaps not surprising that a task force composed primarily of (past and current) elected officials, provided technical assistance by the state division of elections, would lead off their statement of “lessons learned” by remarking that “Florida will always have voters who will mark ballots incorrectly or voters who will choose not to mark their ballots, making their intent difficult to determine.” In other words, the big problem was voters, not laws, procedures, and technologies. However, after clearing their throats with an implied dig at the quality of Florida voters, and a call for voter education to improve them, the Task Force turned their attention to the hard evidence of voting machine failure. Following on this evidence was a series of recommendations intended to centralize and improve the performance standards of voting systems used in the state, decertify older voting systems, appropriate funds for new voting systems, institute a process for continuous improvement in voting systems, and provide for state review of ballot designs.

6 In this sense, the shortcomings of voting machines in Florida were similar to the recent “right church, wrong pew” problems in Hamilton County, Ohio. In Hunter v. Hamilton County Board of Elections, voters came to a multi-precinct voting site and were directed by election officials to the wrong precinct in the site. That case, which is still pending, revolves around the question of whether voters should be disenfranchised for not following the rules, when election officials are responsible for the error in the first place. The policy question in Florida, similarly, was what to do about voters who followed all the instructions about using voting machines to the letter whose votes later were not counted.

7 Like much of the original material pertaining to the Florida recount, the reports and proceedings of the Governor’s Select Task Force are becoming fugitive. The Collins Center, which staffed the original task force, has recently released a 10-year follow-up report, creating a web site that links to the Task Force’s work. See http://www.collinscenter.org/page/voting_home.
It is instructive to consider where the Governor’s Task Force focused its energies in making recommendations to address the problems that had emerged in 2000. Table 1 lists the Task Force’s thirty-five recommendations, classifying them according to the issues that arose in Florida. The two largest categories of recommendations were in the areas that the Bush-Gore drama highlighted most, the recount process and voting technologies. Another large set of recommendations pertained to the political status of the various supervisory figures in the Florida drama, such as the county supervisors of elections and the county canvassing boards.

Table 1 about here

A few recommendations snuck in to address problems that were only tangentially related to the recount controversy. A good example was the issue of uniform poll closing times, one that had long vexed the state, due to its straddling two time zones, but only relevant in 2000, to the degree that waiting for (conservative) panhandle returns added a bit of drama to election night itself.

Bearing in mind subsequent developments, it is notable how the Task Force treated issues pertaining to voter registration. First, the heightened awareness of the press and the public to all things electoral brought to prominence reports of voters going to the polls, believing they were registered, but being denied a ballot. Again, the Task Force started by blaming voter error for this problem, but eventually gave voice to testimony by county election officials that the antiquated architecture of the state’s central voter file was also partly to blame. Of course, it is a bit of a leap to suggest that the problem of voters showing up on Election Day, believing they were registered to vote, but turning out not to be on the list, could be solved simply by creating a centralized, state-funded, computerized voter file. Unless other systems were put in place —

---

8 This classification was of my own doing. The Task Force itself classified the recommendations into four categories that gave a higher-level gloss than what I provide here: Putting People First (recommendations 1–11); Encouraging Reliable Technology (12–16); Improving Procedures and Laws (17–35).
such as electronic poll books, better data entry, and systems to verify election information with voters — much of the value of this new system would be to the benefit of the counties’ budgets, by shifting costs from counties to the state. Whether the new centralized voter file would lead to fewer registration problems on Election Day still depended on how the counties used the data at their disposal.

Second, in light of subsequent controversies over requiring photo IDs in order to vote, it is interesting that the Task Force recommended abolishing the state’s voter identification card, in favor of something it called a voter information card. A separate voter identification card seemed outdated and useless. Instead, based on the testimony presented to the Task Force, it saw greater value in sending voters information about where and how to vote, before every election.

Although hints of future related controversies — opportunities for vote fraud due to un-purged lists, problems of improper registrations generated by third party groups, etc. — appear in the Task Force report, the issue of voter identification did not arise. Indeed, in a public opinion poll about reform proposals commissioned by the Collins Center when the Task Force was wrapping up its work, voter identification was not one of the fourteen reform ideas respondents were asked about.\(^9\)

Third, as a remedy to registration problems on Election Day, the Select Task Force recommended that the state investigate provisional ballots, to deal both with administrative


The fourteen reform proposals were standard recount rules (92% support), same ballot layout/design in all counties (92%), same kind of voting machines in all counties (92%), standard rules for counting overseas absentee ballots (91%), better voter education for new registrants (91%), same poll closing time throughout the state (87%), statewide voter registration list to reduce fraud (85%), better training of poll workers (81%), better voter registration system (79%), prohibit cabinet officials from campaigning for others (63%), nonpartisan election of Supervisor of Elections (62%), outlaw punch card machines (61%), restore felon voting rights (33%), allow voting over the Internet (17%).
errors and with angry citizens. In 2000, provisional ballots were only used in a small number of states. Even as it recommended that the state adopt this fail safe device, the Task Force also admitted to being uncertain about how the technique would work, noting that testimony “revealed confusion” about how provisional ballots were used in other states, or how they might be implemented in Florida. It is also telling that California was the one state cited by the Task Force as a model to follow in devising its new provisional ballot law — a state whose final official tally is notoriously late due to the need to clear provisional ballots. Considering that the urgency of the Bush-Gore litigation was heightened by the need to meet vote-counting deadlines, the reference to California as a model was a bit incongruous.

Another topic that bears mentioning is the treatment of absentee ballots, or convenience voting, in the Task Force report. Like registration problems, the use of absentee ballots became a minor character in the recount saga. At the time, Florida was a “for cause” absentee ballot state, meaning that voters had to certify they were out of town or incapacitated on Election Day in order to vote absentee. In the heightened scrutiny of Florida’s electoral environment, it was revealed that some counties were more lenient than others in enforcing the for-cause provisions, and it was clear that the campaigns, particularly Republican campaigns, were using absentee ballots to lock down their supporters’ votes ahead of Election Day. In one well-publicized episode, the Republican Supervisor of Elections in Seminole County allowed a Republican Party operative to use her office for fifteen days to correct errors in absentee ballot applications that the party had distributed to its supporters. The same Supervisor left a similar set of defective applications generated by the Gore campaign languishing at the county elections office (Cooper 2000).
In view of this controversy, it is significant that the Task Force recommended changing Florida’s general approach to absentee voting, removing the for-cause requirement (Recommendation 23), reducing the amount of information required on absentee ballot applications (Recommendation 24), and generally prohibiting challenges to absentee ballots after they had been opened (Recommendation 25). Two aspects of these recommendations are particularly notable. First, the Task Force made them despite acknowledging that liberalizing the use of vote-by-mail was likely to exacerbate the problem of over- and under-voting. Second, one can sense that the absentee ballot liberalization was partly due to a desire by the Task Force to balance its recommendations in a partisan fashion. Although both political parties used absentee ballots to some degree to lock-in their supporters’ votes ahead of Election Day, the strategic generation of absentee ballot applications by campaigns was a tactic more often associated with Republicans than with Democrats. Insofar as most of the other high-profile Task Force recommendations tacitly endorsed Democrats’ criticisms of Florida’s electoral practices in 2000, it is reasonable to consider the absentee ballot recommendations as a device to gain acceptance of the report in a Republican-majority state legislature.10

Despite initial worries that the Select Task Force’s recommendations would languish in the 2001 legislative session, most of its proposals were adopted. After 2001, election reform in the Sunshine State reverted to partisan form. Perhaps because of the subsequent history of election reform in Florida and the rest of the nation, the serious efforts at bipartisan consensus and technocratic matching of problems to solutions stand out in the Florida reform story. The process was only slightly distracted by extraneous issues, and was earnestly focused on

---

10 Two additional issues demand attention in reviewing Florida’s response to the Bush-Gore episode, recounts and military and overseas voters. I have also recently become acquainted with the convenient bipartisan paring of the liberalized absentee ballot reforms (Republican) with the advent of early voting (Democratic) in Florida. These topics will be addressed in subsequent drafts of this paper.
attempting to end Florida’s reputation as being only a few feet shy of a banana republic.

Unfortunately, the example set by Florida was not always followed by others.

**HAVA**

The 107th Congress convened only two weeks following the *Bush v. Gore* decision and Al Gore’s subsequent concession. Therefore, it was natural for a flurry of bills to be introduced to address the issues that had been raised by the recount controversy. At least thirty-five House and Senate bills were filed in early 2001 pertaining to voting machines, sixty-three pertaining to voter registration, and seventy-five to election administration.\(^\text{11}\)

Although Florida representatives and senators cosponsored some of this legislation, none of the bills that attained a high profile was introduced by representatives from Florida, or any of the other states that had come across the radar screen as having problems related to voting, such as Georgia and Nevada. As a perusal of Table 2 indicates, the bills that attracted a significant number of cosponsors in the House and Senate were generally introduced by members who held institutional positions that placed them naturally front-and-center as leaders in any effort to change election laws.

[Table 2 about here]

The general approaches in the two chambers reflected the partisan majorities that controlled each — Republicans in the House and, after Sen. Jim Jeffords (Vt.) abandoned the Republican Party to become an Independent on May 24, 2001, Democrats in the Senate.\(^\text{12}\) The House eventually passed a bipartisan bill by the end of the first session (2001); the Senate’s

---

\(^{11}\) These bills were discovered by searching the database of congressional bills at thomas.loc.gov. These bills, of course, overlapped somewhat. Future drafts of this paper will account for this overlap.

initial efforts wavered between partisan and bipartisan before an initial bill was passed in the second session. The House vehicle (H.R. 3295) generally set lower performance standards, provided weaker enforcement, provided for a less powerful election commission, and authorized lower spending for new technology than the Senate bill (S. 565).

House negotiations over the contours of an election reform bill ensued over six months, in an effort to work out the bipartisan compromise that finally became H.R. 3295. The only point of contention in committee consideration of the bill was an amendment offered by Steny Hoyer (D-Md.) to add additional voting system accessibility requirements for the disabled and those with limited proficiency in English, which failed on a 4–5, party-line vote (H.Rpt. 107-329, p. 56).

The issues of accessibility and limited English proficiency recurred when the Rules Committee considered H.Res. 311, to bring H.R. 3295 to the floor. The most direct attempt to add stronger accessibility provisions to the bill came in a motion by Alcee Hastings (D-Fla.), to allow an amendment that would condition HAVA funds on states meeting minimum standards concerning the “full accessibility to polling places, as well as full accessibility to technology, for people with disabilities.” This motion, too, went down to a defeat on a 3–7 party-line vote (H.Rpt. 107–331, pp. 2–3). This left in place a “manager’s amendment,” which passed the House, merely requiring states to consider the use of accessible machines. H.R. 3295, the Ney-Hoyer bill, passed on a 362–63 vote on December 12, on the first anniversary of the Bush-Gore ruling.

The Senate bill was also negotiated over a months-long period, but with an ever-shifting set of coalition configurations. Initially, the competing bills were Christopher Dodd’s (D-Conn.) S. 565, which called for strict, detailed national standards for voting machines as part of a federal
program to help states purchase new voting equipment, and Mitch McConnell’s (R-Ky.) S. 953, which avoided federal mandates. Initially, S. 953 was a joint effort with two Democrats, Chuck Schumer (N.Y.) and Robert Torricelli (N.J.), and the list of sponsors was much more bipartisan than for Dodd’s efforts, which attracted no Republican co-sponsors.

As Senate Rules Committee deliberations proceeded, McConnell’s attempts at bipartisanship broke down, however. He eventually urged Republicans to boycott the meeting that marked up S. 379; Schumer and Torricelli, Rules Committee members, abandoned McConnell at this point in favor of Dodd. Unlike in the House, the Senate effort had become partisan.

Bipartisanship was restored at the end of the year, when negotiations between Dodd and McConnell were renewed. Now, however, Christopher Bond (R-Mo.) became part of the principal negotiating team. The three — Dodd, McConnell, and Bond — eventually worked out a compromise that was more aggressive than the House bill on most points. However, it also added new provisions concerning voter fraud and a requirement that first-time voters who had registered through the mails show identification when they voted. Although negotiations finished up before the end of the year, Dodd’s bill, S. 565, which had become the Senate vehicle, was not formally considered by the Senate until the second session, in 2002.

When the Senate finally took up S. 565, floor deliberations became stalled over the anti-fraud/voter ID provisions that Bond had insisted on as his price for agreeing to the bill. Schumer introduced an amendment to strip the bill of the voter ID requirement; a motion by Bond to table it failed 46–51. As a result, Bond threatened a filibuster so long as the Schumer amendment was viable. After two unsuccessful cloture attempts, Democrats agreed to pass the bill with Bond’s
anti-fraud provisions. The bill passed on April 11, 2002 on a 99–1 vote, sending it to conference.

The anti-fraud provisions of the Senate bill also caused delay in the conference proceedings. Knowing his Republican Senate colleagues would support him, Bond held firm. In the end, the conference report maintained the Senate’s anti-fraud provisions. The report on H.R. 3295 passed the House, 357–48, on October 10, the Senate, 92–2, on October 16.

As finally passed, HAVA had something for everyone to love and something for a few to hate. For those who wished to increase voter convenience and “make every vote count,” the law mandated that states use voting equipment that notified voters if they over- and under-voted, add provisional ballot provisions to their state laws, and develop a centralized, computer-based voter registration file. For those worried about federal intrusion into state affairs, the EAC was established as a clearinghouse and keeper of voluntary voting machine standards, not as a regulator or enforcer of federal law. For those who were convinced that stupid voters, not bad machines, caused voting problems, HAVA provided funding and programs to help improve the quality of voter education and poll worker performance. Finally, for those worried about the parlous financial state of election administration, the law provided over $3 billion to assist the states in improving elections, from technology to polling place practices.

Press accounts have emphasized the left’s dissatisfaction with HAVA, due to the inclusion of the identification requirement and the wide berth given to states in implementing the act. However, the roll call record casts doubt on this characterization. One can see this in the House roll call votes to originally pass H.R. 3295 in late 2001, and then to accept the conference report, with the various changes from the Senate, in 2002. Table 3 reports the results of probit analysis of these roll call votes, in which the independent variable is each member’s first-
To help tease out differences due to differential whipping by the two parties, I run the estimation separately for each.

[Table 3 about here]

The coefficients describe an ends-against-the-middle voting pattern on both the initial passage and the final conference votes. Liberal Democrats and conservative Republicans were less supportive than more centrist members of their parties were.

This pattern is further illustrated in Figure 1, which graphs the estimated probabilities of voting yea, as a function of DW-NOMINATE scores. A couple of other points are apparent upon examining these graphs. First, although support for HAVA dropped off at both ends of the ideological spectrum, it dropped off faster on the conservative end. Second, the net effect of changes to the bill, from the initial passage to the conference, was to increase support for HAVA on the left and decrease it on the right. Therefore, while liberal House Democrats were certainly dissatisfied with the identification requirements that were imported into HAVA from the Senate, this dissatisfaction was more-than-outweighed by the addition of the stronger reform provisions on other dimensions that were strengthened by the Senate.14

[Figure 1 about here]

Refocusing our attention on Florida for a moment, HAVA accommodated states like Florida, which had already gone through the process of discarding its older technologies in favor of new ones. The grant program was available to “early adopters” of reform to help them pay for

---

13 The particular file with DW-NOMINATE scores used was h01111e21_pres.dta. I thank Keith Poole for so kindly sharing his data with the profession. DW-NOMINATE scores in this context can be thought of as measures of the ideological location of senators arrayed along a scale that goes from -1, for the most liberal representatives, to +1 for the most conservative.

14 Not discussed here are the results of the last regression reported in Table 3, which analyzes the vote to refer HAVA back to committee, with instructions. The instructions, which were much more prescriptive than anything in the Senate bill, would have moved the bill significantly to the left. The coefficients in Table 3 show that the right wings of both parties were much more likely to oppose these instructions than the left wings. However, once this vote was dispensed with, most of the Democratic Party’s left wing returned and supported final passage of the bill.
the big-ticket items, buying new equipment and developing a centralized voter file. However, in retrospect, it is striking that the provisions of HAVA that have ultimately caused the most controversy were prompted by issues that did not arise at all in Florida, and only were introduced in the congressional process through the side door. These provisions were the accessibility mandate and the identification requirements for most first-time voters.

It was widely acknowledged that the source of the energy within Congress for adding a provision concerning accessibility was Dodd, who stated he had a special interest in the issue because of his sister, who was blind. The provision was not originally included in the McConnell-Schumer-Torricelli bill (S. 953) and as we have seen, the Rule that brought HAVA to the House floor precluded a vote on the issue. Therefore, it is easy to imagine that if, for instance, Sen. Jeffords had not switched parties, which made Dodd the chair of the Senate Rules and Administration Committee, the requirement that every precinct have at least one machine that allowed disabled voters to vote independently and in secret, would not have passed.

The origin of the voter-ID requirement was clearly Sen. Bond, who had established a high profile for himself as a crusader against voter fraud, following another 2000 election controversy, this one involving the U.S. Senate election in Missouri. That election pitted the incumbent senator John Ashcroft (R) against Gov. Mel Carnahan (D), who died in a plane crash in the midst of the campaign. The new governor, Roger Wilson (D), had announced that if the deceased Carnahan won the election, he would appoint Carnahan’s widow, Jean, to the seat.

Thus, the election already had a surreal cast to it as Election Day approached. Because of an administrative meltdown on Election Day in heavily Democratic St. Louis, chaos reigned in many precincts of the city. This led a local circuit judge to order polls in St. Louis held open an additional three hours — an order that was quickly overturned as contrary to state law, but one

---

15 A good summary of this election and the controversy that followed can be found at (Fountain 2000).
that allowed an unknown number of (presumably Carnahan) voters to vote after poll-closing time. In a news conference following the election, Bond stated, “I think the evidence points very strongly to a major criminal enterprise, and if this in fact happened ... I believe prosecution of those who committed any of the acts and conduct in the conspiracy to defraud voters should be brought to justice.”

Bond went on to request formally a federal criminal investigation of the incident. Much to his chagrin, once investigations were complete, not only were charges of voter fraud not brought, but also the U.S. Justice Department concluded that the city election board had improperly purged voters from the rolls ahead of the 2000 election. The chaos that was observed on Election Day was caused by an over-zealous purge of the voter rolls and an inadequate provision of resources to resolve registration problems quickly when they inevitably arose on Election Day.

Thus, the process that led to the passage of HAVA shared an important characteristic with the process that led to the reform recommendations in Florida — it produced centrist recommendations that focused on the problems that had been highlighted in the recount controversy. Unlike in Florida, the process that produced HAVA was more overtly partisan, although the final product was sufficiently inclusive that partisanship was muted on the final passage vote. Also unlike Florida, the presence of issues that were unrelated, or only tangentially related, to the widely recognized problems in Florida played a bigger rule with HAVA. Voter fraud was not a major issue with the Governor’s Select Task Force. The issue of disability access was acknowledged in Florida, but referred to future study.

II. Consequences Intended

The process through which provisions were accreted onto the Help America Vote Act, from the initial appearance of problems in Florida to the signing ceremony on October 29, 2002, should give one pause in trying to discern an overarching intent or logic to the Act. The legislative process is a good one for reminding us that Congress is a “they,” not an “it,” (Shepsle 1992), that policymaking often consists of solutions looking for a problem (Cohen, March, and Olsen 1972), and that policymaking is typically determined by narrow interests with intense attention to the matter at hand (Freeman 1955; Lowi 1964). That said, it is clear that without the Florida controversy, a bill like HAVA would not have been seriously considered by Congress, much less passed. In addition, identification provisions aside, the very large coalition that came together to pass HAVA generally agreed that the major provisions of the bill — upgrading voting machines, improving registration lists, and improving administrative practices — constituted an appropriate federal purpose that could be achieved by the implementation of the bill (c.f. Miller 2004).

Even controlling for the inevitable hyperbole that surrounded statements made in support of HAVA, it is safe to say that the bill’s supporters inside and outside of Congress expected voting machines to get better and for registration problems to diminish. Supporters of the disability provisions expected access to the polls among the disabled to increase. Supporters of the voter identification provisions expected fraud to decline. Therefore, it is natural to ask whether the impact of the bill can be measured, and if elections have been improved over the past decade in these ways.

The purpose of this section is to review the evidence on each of these issues — voting machines, registration, accessibility, and fraud. These topics are listed in the order in which data
are available, before and after the passage of HAVA, to assess improvements in election administration nationwide.

As a general matter, data to assess the quality of election administration is poor and/or non-existent, a fact related to V.O. Key’s assessment of election administration in the mid-twentieth century as the most “neglected and primitive” branch of public administration (Key 1949, p. 443).\(^\text{18}\) However, the data are not uniformly bad. At the “good” end of the spectrum, there are measures of voting machine performance and voter registration quality that have existed since before the 2000 election, which can be utilized directly to assess whether things have improved since 2000. At the other end of the spectrum, data to assess how accessible voting was before and after 2000, from the perspective of the voter, is virtually non-existent; most would argue that reliable data about voter fraud \emph{is} non-existent. Therefore, it is possible to assess whether election administration has improved in the United States since Florida and HAVA, though the focus of our findings will be constrained by a type of drunkard’s search for available data.

\textit{Voting machines}

The common metric used to assess the quality of voting machines after the Florida controversy is the residual vote rate, which is defined as:

\[ \frac{(\text{Turnout}_t - \text{Votes}_t,o)}{\text{Turnout}_t}, \]

for election \(t\) and office \(o\).\(^\text{19}\) The office \(o\) is usually the top-of-the-ticket race, either the president in on-years or the governor or U.S. senator in off-years. Because it is a highly visible office for

\(^{18}\) The following deal with the sorry state of affairs in the availability of data to assess the performance of election administration in the United States: (Alvarez, Ansolabehere, and Stewart 2005; Ansolabehere and Persily 2010; Gerken 2009; Gronke and Stewart 2008; Stewart 2008b)

\(^{19}\) Studies that use the residual vote rate to assess the performance of voting machines include (Ansolabehere and Stewart 2005; Caltech/MIT Voting Technology Project 2001; Garner and Spolaore 2005; Kimball and Kropf 2005;
which voters infrequently abstain outright, most studies that use the residual vote rate to assess the quality of voting machines stick to presidential elections.

Using data from before and including the 2000 presidential election, Ansolabehere and Stewart (2005) showed that optical scanning voting machines generally produced lower residual vote rates than punch cards, a finding that helped support the machine trade-in provisions of HAVA, and a requirement that the EAC regularly report residual vote rates in their assessments of American elections. Using data from 2000 and 2004, Stewart (2006) showed that the HAVA-induced changes to voting technologies had resulted in roughly one million votes being “recovered” in 2004. In other words, had localities not abandoned mechanical lever machines and punch cards after 2000, there would have been one million more under- and over-votes than actually occurred in 2004. Viewed another way, 6% of the 17 million additional votes counted in the presidential election of 2004, compared to 2000, were at least indirectly attributable to HAVA.

Table 4 brings this research up-to-date, including data from the 2008 presidential election. The data are organized as a panel. The observation is the locality-year, where locality is a town in states that administer elections at the municipality level (New England and parts of the upper Midwest) and a county elsewhere. The years are the presidential election years of 2000, 2004, and 2008. The voting machine types are punch card, mechanical lever machines, hand-counted paper ballots, electronic voting machines (DREs), mixed, and optical scanning, with optical scanning serving as the omitted category. In addition to jurisdiction-specific fixed effects, I include dummy variables for the election years 2004 and 2008 (using 2000 as the

---

Kimball and Kropf 2008; Knack and Kropf 2003a; b; Miller 2005; Stewart 2006). For a discussion of assessing voting technology more generally see (Stewart 2011b).
omitted category), to help control for changes in the residual vote rates across elections years that are independent from changes in voting machines.

[Table 4 about here]

The results reported in Table 4 demonstrate the value of abandoning punch card voting machines in favor of optical scanning — a local jurisdiction switching from punch cards to optical scanning saw its residual vote rate drop by 0.71 percentage points, on average. Because the coefficient associated with DRE machines is effectively zero, this means that we would expect essentially the same reduction in the residual vote rate if a jurisdiction dropped punch cards in favor of DREs instead.

In 2008, over 42.7 million voters in counties that had used punch cards in 2000 cast their ballots on optically scanned ballots or DREs. If we apply this 0.71 percentage point residual vote improvement on these voters, we get roughly 303,000 fewer residual votes in 2008 due to changes in voting technology.

At the same time, the results reported in Table 4 are not so sanguine for voters who have abandoned lever machines in favor of optical scanners and DREs. The coefficient is a negative 0.27, meaning that a shift from a mechanical lever machine to optical scanning is associated with an average increase in the residual vote rate of 0.27 percentage points. Roughly, 11.8 million voters in jurisdictions that had used lever machines in 2000 used optical scanners to cast their ballots in 2008. If we apply this 0.27% point residual vote penalty to these jurisdictions, we get almost 32,000 additional residual votes due to the adoption of the newer technologies in those places.

These results are slightly different from past conclusions, and deserve further research. The commonality with past research is that abandoning punch cards continues to look like a
good idea. However, the abandonment of lever machines now looks to lead to higher residual vote rates, whereas in 2004, the difference was statistically indistinguishable from zero. One factor leading to the difference in results is simply the fact that localities are still settling into their new voting machines; any short-term estimation of changes in residual vote rates are likely to be volatile when so many jurisdictions are making so many changes so quickly.

Another factor that needs to be considered is how the residual vote rate overall has fallen since 2000, independent of the change in voting machines. Note that the coefficients associated with election years 2004 and 2008 in Table 4 are -0.0063 and -0.0054, respectively. These coefficients are associated with reductions in the residual vote rate of 0.63 and 0.54 percentage points, respectively, each year, compared to 2000. To put this in terms of the number of voters, when we apply 0.54% to the turnout level for 2008, 131.5 million, it works out to a reduction of roughly 710,000 fewer residual votes, even before we take into account voting machine changes. Why the residual vote rate declined so much, independent of voting machine changes, is open to speculation. The heightened partisan competitiveness across the decade certainly had something to do with it. However, the size of the effect is too large to be accounted for by fewer voters simply abstaining when they vote for president.  

Therefore, it is not unreasonable to attribute at least part of the reduction of the residual vote rate since 2000 to other changes in election administration — just not voting machine changes.

In summary, the HAVA-mandated abandonment of punch cards clearly improved the accuracy of voting machines that were used throughout the United State; findings concerning the mandated abandonment of mechanical lever machines are less consistent. Overall, voting machine performance, measured by the residual vote rate, has improved nationwide, even in jurisdictions that kept their old optical scanners. There are multiple, complementary

---

20 A wide variety of studies has tended to find an abstention rate in presidential elections of around 0.5%.
explanations for why this was so, but it seems fair to allocate some of the credit to HAVA’s role in focusing attention on the overall quality of election administration in the United States.

**Voter registration**

A second important theme that arose during the Florida recount controversy was problems with voter registration. Two types of complaints were prominent. The first consisted of reports from voters who believed they were registered to vote, but who were not on the voting list at the precinct where they appeared on Election Day. The second consisted of reports that the state Division of Elections had pressed a private contractor that it hired to conduct list maintenance of the central voter file to adopt a name-matching strategy that was guaranteed to increase the number of “false positive” matches — in other words, remove a large number of qualified voters because they were mistaken as former felons (Stuart 2004).

One effect of the recount controversy was raising the salience of the felon voting issue, especially since the effects were disproportionately felt among African American citizens (Manza and Uggen 2004). However, despite its increase in salience, the controversy failed to produce many direct changes in law or regulation. In Florida, for instance, the Governor’s Select Task Force simply recommended that the legislature review the issue of restoring voting rights to felons who had completed their sentences (Governor's Select Task Force on Election Procedures 2001, p. 69). In the Senate, Harry Reid (D-Nev.) and Arlen Specter (R-Penn.) proposed amending HAVA to restore the voting rights of felons who had served their sentences, which went down to a 31–63 defeat.

---

21 Chapter 2 of the U.S. Civil Rights Commission’s report, “Voting Irregularities in Florida during the 2000 Presidential Election,” contains an account of many of the reports of voters who were denied access to the ballot because of voter registration problems. The report is available at the following URL: http://www.usccr.gov/pubs/pubsndx.htm
Legislators proved unsympathetic when the problem of voter access was defined in terms of restoring the voting rights of former felons. Greater attention to the general problems of voter registration was present in two ways in HAVA. The first was through the requirement that states adopt provisional ballots as a “fail safe” device to deal with registration problems on Election Day. The second was through the requirement that each state implement “in a uniform and non-discriminatory manner a single, uniform, official, centralized, interactive computerized statewide voter registration list defined, maintained and administered at the state level.”

At first blush, it appears that states have complied with the requirement to implement provisional ballots, although the practices employed, as written into law, vary considerably (Whitaker and Traldi 2009). Most states also appear to be at least moving toward full compliance with the centralized voter registry requirement, with the notable exception of California.

However, the implementation of these requirements has varied significantly state-to-state, and even county-to-county within states. The centralized voter registry was supposed to improve the quality of the data included in these files — guard against typographical errors, ensure that addresses were valid, etc. — but a recent study by Ansolabehere and Hersh (2010) has shown numerous clerical errors in many of the state files. Nationwide, of 185 million registration records in the United States, 16 million were estimated to be invalid. Some states had significant discrepancies about the number of voters who had turned out to vote in recent elections. The percentage of registered voters identified as deceased ranged from around 0.1% in Florida to over 2.5% in Washington, D.C. and Ohio. In Arkansas, roughly 20% of registration records were judged either to have an undeliverable address or to be deadwood, or both, compared to only about 2% in Washington, D.C. and California. The Ansolabehere-Hersh study is just a slice
in time, and it may not be the most representative slice at that. However, their report suggests how far some states still have to come before all voter registration lists meet the goals of HAVA.

The implementation of provisional ballots has likewise been variable. As the Florida Select Task Force indicated in their 2001 report, when HAVA was being considered and adopted, there was no consensus about what provisional ballots were. States that had never used provisional ballots were left wondering how to marry their (usually) creaky voter registration lists onto a policy that, at its extreme, might allow voters to show up virtually anywhere and vote at least a partial ballot, depending on how much the ballot style of the “right” precinct overlapped with the “wrong” one. Add to this the fact that states without provisional ballot provisions in 2000 probably had different attitudes toward facilitating voting, compared to states that did not, and the situation was ripe for significant implementation disparities (Stewart 2009).

Figures 2 and 3 provide illustrations of just how disparate implementation of provisional ballots can be. Figure 2 graphs on the x-axis the number of provisional ballots cast in each state in 2008, expressed as a percentage of all ballots cast in the state.22 The y-axis reports the percentage of provisional ballots that were rejected, for whatever reason. Not surprisingly, there is a negative relationship between the two numbers: states that are liberal in giving out provisional ballots tend to reject few of them, and vice versa. However, note that even among states with similar rates of provisional ballot use, there is considerable variation in rejecting them. For instance, among the dozen-or-so states that gave out virtually no provisional ballots in 2008, the rejection rates range from 2.7% in Montana to 84.3% in Delaware.

---

22 The data are taken from the EAC’s 2008 Election Administration and Voting Survey, http://www.eac.gov/research/election_administration_and_voting_survey.aspx. The following states are omitted from this analysis because they did not report the necessary data to the EAC concerning provisional ballots: Alabama, Connecticut, Idaho, Illinois, Indiana, Kansas, Maine, Massachusetts, Minnesota, Nebraska, New Hampshire, New Mexico, Rhode Island, South Dakota, Tennessee, Vermont, and Wyoming. Some of these states were not required to use provisional ballots, because of their use of Election Day Registration. However, even most EDR states still have provisions for provisional ballots.
Another way to think about rejection rates is to calculate them as a percentage of all voters, not just voters given provisional ballots. This alternate measure gives us an indicator of how many voters in a state are negatively affected by the use of provisional ballots. Calculating the rejection rate this way, we see that over one percent of all voters cast a rejected provisional ballot in three states and the District of Columbia in 2008 — Arizona (1.9%), D.C. (1.8%), and New York (1.4%). In contrast, less than 0.05% of all voters cast a rejected provisional ballot at least nine states — Michigan, Kentucky, Connecticut, Iowa, Montana, Oregon, Wisconsin, and North Dakota.

Figure 3 shows this variability within just one state, Ohio. The axes are the same as in Figure 2. The scale of the graph is also the same, to help place Ohio’s variability in context with the nation’s variability. County names vary in size, in proportion to voter turnout in 2008. We see here that if we disaggregate Ohio down to the county level, the variability in the use of provisional ballots nearly matches that of the nation as a whole. Leaving aside Pike County, which is a clear outlier, Ohio counties vary by a factor of five in their use of provisional ballots. Rejection rates are less variable, but still range across a factor-of-four difference, from 10% to 40%. If we confine ourselves to the counties with over 100,000 voters in 2008, the percentage of all voters who ended up casting rejected provisional ballots ranged from 0.2% in Mahoning to 1.1% in Wood.23

Despite a rocky start to some of the state centralized voter files and the disparate implementation of provisional ballots across states and counties, it is still possible that registration problems have diminished since 2000, and that at least part of this improvement is

---

23 Another slice into the variability of the use of provisional ballots in Ohio is through examining the prevalence of provisional ballots that were rejected due to registered voters showing up at the wrong precinct. On this issue see (Stewart 2011a).
due to efforts associated with HAVA. We can see evidence of improvement by examining responses that registered voters have given in the Voting and Registration Supplement, conducted by the Census Bureau every two years.

The most widely-cited statistic about the prevalence of registration problems following the 2000 presidential election came from the Caltech/MIT Voting Technology Project report (2001), which projected that three million votes were lost in 2000 due to registration problems. This estimate was based on an extrapolation from answers to the question asked in the Current Population Survey’s Voting and Registration Supplement (VRS) about why non-voters said they failed to vote.

According to the data in the VRS, the percentage of registered voters failing to vote because of a registration problem has dropped each year since 2000. The rate was 0.92% in 2000, falling to 0.74% in 2004 and 0.57% in 2008.

Although problems with registration have dropped nationwide, they have not dropped uniformly across states. Figure 4 provides an illustration of one way to see this. The data are based on the same question in the VRS that allows us to ascertain how many non-voters attribute their failure to vote to registration problems. Instead of one year’s answers, we rely on answers aggregated across the past decade to ascertain which states have seen the most improvement. I first calculated the percentage giving the “registration problem” answer in each state for each year from 1998 to 2008. Examination of these state-specific percentages longitudinally reveals that they are highly correlated year-to-year. That is, states with a relatively large number of respondents blaming registration problems for not voting in 1998 tended to have high rates in 2000, 2002, etc. This suggests two things. First, responses to this question are likely the result of persistent factors within each state, whether they are policy, political, or demographic.
Second, we are on firm footing if we want to smooth out year-to-year variability in this measure for each state by combining years to produce a scale.\textsuperscript{24}

Therefore, to illustrate changing registration problems across the recent past, I average the first three election years together (1998, 2000, 2002) and call it “Period 1,” and average the next three years together (2004, 2006, 2008) and call it “Period 2.” Figure 4 is the graph of the Period 2 state averages, on the $y$-axis, against the Period 1 averages, on the $x$-axis.

[Figure 4 about here]

At least two patterns stand out in this graph. First, the states at the low end of registration problems for both periods tend to be states that had Election Day Registration for the entire period. (At the other end of the scale, note that Oregon, which has been 100% vote-by-mail during this period, and Washington, which was rapidly moving in that direction, had among the highest reported registration problems during the decade.) However, the second and more striking pattern is simply the longitudinal stability of reported registration problems at the state level. Only a few states are far from the 45-degree line in Figure 4, and there is no obvious reason why Hawaii has gotten so much worse. Montana, the biggest improver across the two periods, implemented EDR in 2006, so presumably its movement had something to do with

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline
\hline
2008 & 1.00 &      &      &      &      &      \\
2006 & .53  & 1.00 &      &      &      &      \\
2004 & .43  & .45  & 1.00 &      &      &      \\
2002 & .20  & .51  & .61  & 1.00 &      &      \\
2000 & .36  & .35  & .38  & .44  & 1.00 &      \\
1998 & .14  & .40  & .56  & .58  & .26  & 1.00 \\
\hline
\end{tabular}
\caption{Correlation matrix for observations across each year (N=51).}
\end{table}

\textsuperscript{24} The following table displays the correlation matrix for observations across each year (N=51).

A principal component factor analysis yields two factors with eigenvalues greater than 1.0. The first, with an eigenvalue of 3.1, explains 52% of the variation in the data; the factor loadings range from a low of .59 (for 2008) to .81 (for 2004). The second factor, which explains an additional 17% of the variance, yields factor loadings that suggest no obvious interpretations.
adopting this reform. However, the Montana state legislature has recently voted to repeal EDR, so we should expect Montana to move back into the center of the pack in the future.

On the whole, then, registration problems appear to have declined since 2000, although it is impossible to peg this improvement on any particular change induced by HAVA. States still vary considerably in how frequently registration problems beset their voters — a degree of variation that overwhelms the estimated degree of improvement over the past decade.

Accessibility

The accessibility of voting machines and polling places to disabled voters did not occupy much attention in the early news accounts of the problems that surfaced in Florida, or elsewhere around the country. However, advocates for the disabled, who had worked persistently over the previous decade to reduce the barriers that hindered the independent voting among this population, were immediately drawn to the post-Bush-Gore policymaking process as a perfect opportunity to extend their gains.

As we saw in the previous section, until Sen. Bond changed reform dynamics by introducing the issue of voter fraud into the mix, the one recurring issue that seemed to divide Congress in the consideration of HAVA was the extent to which access to the polls for the disabled would be a priority in the new law. In the end, the accessibility provisions were added to HAVA. These provisions virtually guaranteed that every election jurisdiction would buy at least one DRE for each precinct. For local election officials worried about the confusion that would arise by having multiple voting technologies in each precinct, in many places the path of

---

25 Prior to HAVA, the main laws governing access to polling places for the disabled were the Voting Accessibility for the Elderly and Handicapped Act (VAEHA), passed in 1984, and the Americans with Disabilities Act, passed in 1990. The 1965 Voting Rights Act also guarantees the right of blind voters to receive assistance in voting. For a discussion of the laws and their implementation as of 2002, see (U.S. General Accounting Office 2001). The primary thrust of post-Bush-Gore advocacy emphasized the ability of disabled voters to vote independently, without assistance.
least resistance was simply to migrate entirely to DREs. Because of the monetary costs of this requirement, and the significant political backlash its implementation often provoked, it is natural to ask what evidence exists that HAVA has helped improve access to independent voting by the disabled.

Perhaps underscoring the fugitive nature of information about the accessibility of voting to the disabled, there are no studies, as far as I am aware, that allow us to assess directly how access to voting to the disabled changed after HAVA, particularly as it relates to the use of voting machines.  

The only longitudinal data pertaining to voting that can address the subject again comes from the VRS, but the data are of limited utility. Unfortunately, the Current Population Survey, which is the core instrument on which the VRS travels, does not ask all respondents if they have a disability. Rather, respondents are only asked if they are disabled if they have first identified themselves as being unemployed. Other Census Bureau studies of the economic participation of disabled adults show that roughly half of those who identify themselves as disabled are employed (Brault 2008). Therefore, any sample of the unemployed disabled will not only contain a significantly diminished sample size, compared to the entire disabled population, but the population of individuals who cannot work because of their disability is likely to be quite different from the population who can.

With these concerns in mind, we can dip into the VRS for a first look at evidence concerning the changing access of the disabled to the polls since 2000. Table 5 reports basic

---

26 The most recent published scientific study of access of the disabled to the polls appears to be (Kruse et al. 1999).  
27 The standard question is something along the lines of “Does a health problem, disability, or handicap CURRENTLY keep you from participating fully in work, school, housework, or other activities?” Brault (2008, p. 13) reports that the CPS began asking a question about disabilities of all respondents in June 2008. While answers to this question were not available via the DataFerrett site for the 2008 VRS, presumably answers to this question will be available in future releases of the data.
statistics about election participation for the unemployed disabled, compared to non-disabled voters. Not surprisingly, the registration and voting rates are lower for disabled voters. Registration and voting rates rose between 2000 and 2008, but at roughly the same rates for both disabled and non-disabled respondents.

Table 5 about here

Table 6 reports reasons for not voting, this time breaking down the responses according to whether the respondent was disabled or not. In addition to the obvious main difference that distinguishes disabled and non-disabled non-voters — disability and illness — the disabled are much more likely to cite transportation problems for their non-voting. Looking across the decade, the one significant time-trend concerns registration problems, with registration problems declining among the disabled but not among the non-disabled.

Table 6 about here

One is only able to catch a glimpse at whether the ballot has become more accessible to the disabled since 2000. Using the Survey of the Performance of American Elections (SPAE), we can describe in a little more detail the experience of disabled voters in 2008, although without a longitudinal element, we cannot assess whether the experience has gotten better over time.28

Respondents to the SPAE were asked, “Does a health problem, disability, or handicap CURRENTLY keep you from participating fully in work, school, housework, or other activities?” Sixteen percent of respondents answered yes, which is considerably more than the 2.6% of CPS respondents whose disability kept them from working, and very close to the 17% of

---

28 The Survey of the Performance of American Elections is an Internet-based survey of 10,000 registered voters — 200 from each state — conducted during the week immediately following the 2008 presidential election. The focus of the survey was on the voting experience. The survey was supported by the Pew Center on the States, under the Make Voting Work Initiative, along with the JEHT Foundation and the AARP. Registered voters were asked whether they voted in 2008. If they did not, they were asked a series of questions to probe why not. If they did vote, respondents were asked the mode of voting they used (in-person on Election Day, in-person early voting, or absentee/mail voting), and then a series of questions about their experience, depending on the mode. Data and the final report may be downloaded at the following site: http://dspace.mit.edu/handle/1721.1/49847.
the entire adult population who were identified as disabled by the Census Bureau in 2005 (Brault 2008, p. 4).

Tables 7 and 8 replicate Tables 5 and 6, to the degree possible, to show that the respondents in 2008 to both surveys — the SPAE and the VRS — were roughly comparable. The SPAE had a battery of questions probing why non-voters failed to vote in 2008 that was similar to the VRS, with a couple of important differences. First, rather than ask respondents to choose one principal reason they did not vote, as in the VRS, the SPAE asked non-voting respondents to answer on a three-point scale for each reason: “not a factor,” “a minor factor,” and “a major factor.” The numbers in Table 8 report the percentage of non-voting respondents who answered “a major factor” to each item. Second, the SPAE added five more reasons for not voting: (1) no identification, (2) did not receive absentee ballot, (3) lines were too long, (4) did not know where to go to vote, and (5) did not receive ballot on time.

Once again, the responses to the question about why disabled non-voters fail to vote emphasize the problems of getting to the polls — or getting a ballot — in addition to the disability itself, which undoubtedly captures both the difficulty in getting to the poll and navigating the voting system once at the polling place.

The distinctive thing about the SPAE is that we can also probe the experience of disabled voters once they got to the polling place, or once they received an absentee ballot. Table 9 provides this comparison. Overall, both disabled and non-disabled voters had positive experiences voting, although there were some differences over just how positive these experiences were. Among those who voted in person, either on Election Day or via early voting, disabled voters had a slightly more difficult time finding their polling place, were more likely to
state they had difficulty using the voting equipment, and were more likely to report receiving help filling out their ballots. Among the small number of voters who received help marking their ballots (8.4% of disabled and 5.8% of non-disabled), disabled and non-disabled voters relied on different sources of assistance. Twenty percent of disabled voters relied on their spouses when they sought help using the voting equipment, compared to only 3% of non-disabled voters. On the other hand, 89% of non-disabled voters who sought help relied on poll workers, compared to 72% of disabled voters. Finally, disabled and non-disabled voters reported no statistically significant differences in problems related to receiving and marking absentee ballots.

Overall, disabled voters were slightly less likely to state that they were “very confident” their vote was counted as cast, compared to non-disabled voters — 68% versus 71%. However, in substantive terms, this is very small. Upon closer analysis, this difference is accounted for entirely by voters who voted in-person on Election Day — 71% of disabled Election Day voters were very confident, compared to 75% of non-disabled voters. The differences among voters using the other two voting modes were both substantively and statistically zero.

One final piece of evidence concerning the increased ability of disabled voters to vote without assistance comes from examining the use of touch screen voting machines that were provided for the use of disabled voters. As far as I know, only Florida reports the number of votes cast on these machines, separate from the others. In 2008, 6,921 votes in Florida were cast on touch screen terminals (out of 8.5 million votes cast), which is less than the number of precincts in the state. In 2010, 2,562 votes were cast on the machines provided for accessibility. Based on results from the 2009 American Community Survey, it appears that 2.8% of Florida’s voting age population is visually disabled. Considering that well below 2.8% of all votes —
closer to 0.07% — are cast on electronic touch screens, it is clear that the so-called accessibility machines are not being used as extensively as they might be.

Because the accessibility requirement entered HAVA without much of a widespread discussion about what might be achieved by mandating accessible machines in each precinct, it is difficult to know precisely how HAVA has fared on this dimension. In addition, absent widespread discussion at the point of passing HAVA, it is difficult to know how the machine accessibility mandate should be compared to other problems facing disabled voters, particularly transportation and mobility. The survey evidence indicates that disabled citizens still have problems voting, and that those problems have not changed much since 2000. In that sense, HAVA has not been an especially effective vehicle for granting to disabled individual richer access to the voting.

Fraud

It seems indisputable — although I imagine someone will dispute it — that voter fraud was the least systematically documented problem that HAVA eventually addressed. Alongside careful, if preliminary, attempts to quantify the number of lost votes due to machine malfunctions, polling place problems, and registration snafus, the best evidence of a comparable-sized problem with voter fraud consisted of a few anecdotes, most of which dissolved as cases of fraud upon close examination.

Of course, absence of evidence is not evidence of absence. Measuring directly the incidence of any crime is generally difficult-to-impossible, particularly when the victim does not directly encounter the perpetrator. The difficulty of measuring the incidence of voter fraud has led to a number of ingenious efforts to assess whether fraud has occurred. Much of this research has unfolded in the comparative context, particularly in research about developing countries,
where various types of electoral shenanigans are said to be common (Alvarez, Hall, and Hyde 2008; Hyde 2007; Mebane 2006).

One of the new Election Assistance Commission’s (EAC) first major controversies came about from its attempt to be responsive to calls to move the matter of measuring voter fraud from the anecdotal to the systematic. When the EAC received a draft report about the prevalence of fraud from a bipartisan team of contractors, Job Serebrov and Tova Wang, the report was edited by the commission to downplay the lack of evidence about fraud, and to intimate that fraud was indeed regarded as a common problem.29

Although the data necessary to assess whether the other areas targeted by HAVA for improvement — voting machines, registration, and accessibility — are often of poor quality and incomplete, some evidence does exist, and efforts continue apace to improve the quality of data necessary to assess performance on these dimensions. There is not only a lack of data to assess whether HAVA helped to reduce election fraud, there is little agreement on how to start. For that reason, I do not pursue the issue further.

Consequences Unintended

The evidence presented in the previous section suggests that HAVA did not make elections worse and, to some degree, probably made them better. It is of course impossible to disentangle entirely improvements to elections because of specific aspects of HAVA, such as the mandate to improve election machines, from the fact that the light the Florida fiasco shone on election administration caused election administrators to be more careful. Attributing improvements in

29 The original report may be found at (Wang and Serebrov 2007). The report as released by the EAC may be found at http://www.eac.gov/research/other_reports.aspx. See (Urbina 2007) for a news account of this episode.
voting machines and election administration specifically to HAVA, rather than to a general interest in making elections better, probably gives too much credit to the act itself.\textsuperscript{30}

Still, to the degree that HAVA had a direct effect on improving the quality of elections in the U.S., it seems appropriate to call these \textit{intended} consequence of HAVA. Similarly, it seems appropriate to identify a set of \textit{unintended} consequences of HAVA, even though we know that they may have occurred without HAVA having ever passed. The two unintended consequences I wish to draw attention to are, first, the controversy over the use of electronic voting machines, and second, the growing controversy over voter fraud, and in particular, the movement to mandate the use of photo identification at the polls.

\textit{Electronic voting controversy}

The use of computers to cast and count ballots was controversial before 2000. A classic \textit{New Yorker} article in 1988 addressed charges that the software was prone to manipulation (Dugger 1988), making reference to reports by Roy Saltman that gained new life after Florida (Saltman 1975; 1988).

Despite these concerns, the use of DREs during the 1990s grew steadily, easily outpacing the growth in the size of the electorate.\textsuperscript{31} From 1988 to 2000, the size of the electorate, measured by the number of votes cast for president, grew by 15\%, from 91.5 million to 105 million. In that same period, the \textit{number} of voters using lever machines fell by 38\%, the number using hand-counted paper fell 72\%, and the number using punch cards grew only 4\%. Over the same period, the number of voters using electronic machines grew over 300\%, from 2.6 million to 11.3 million. The number voting on optical scanners grew at an even faster pace, from 5.9 million to

\textsuperscript{30} A similar argument is made in (Stewart 2004) concerning the move in Georgia to mandate the use of a single DRE beginning in 2002.

\textsuperscript{31} Information about the use of voting technologies before 2000 was provided by Election Data Services. Data after 2000 were gathered by the author.
35.4 million (495% growth). Still, the growth in the use of DREs was robust, coming despite well-publicized attacks on the devices, such as Dugger’s.

For understanding the later politics that unfolded, it is important to recognize where the growth in DRE usage came from before 2000 —primarily in towns and counties that were abandoning mechanical lever machines. Fifty-nine counties used DREs in 1988. Between then and 2000, an additional 198 counties adopted the devices, 177 of which (89%) had previously used mechanical lever machines. In contrast, over the same period, the number of counties using optical scanners grew by 1,029. Of these, over half (53%) had previously used hand-counted paper ballots. Another 231 counties (22%) had used paper-based punch cards. Only 24% of the new adopters of optical scanning were counties that had previously used mechanical lever machines.

HAVA changed the pattern of voting machine use dramatically, prompting paper-based counties to shift to electronic devices. From 2000 to 2008, the number of total voters grew by 24.4 million. The number of people voting on DREs grew by four million more voters, by 28.5 million, to 39.8 million voters using DREs in 2008. This was a percentage growth rate of 253%. The rate of growth in the use of optical scanners was much lower, 117%, representing a move from 41.5 million to 76.9 million voters.

Whereas in the 1990s, only 11% of the new adopters of DREs had previously used some form of paper balloting, during the early 2000s, 60% of the new adopters of DREs had previously used paper.

If HAVA had not been adopted, would the rush to DREs during the 2000s have been so rapid? Ansolabehere and Stewart (2008) argue that the answer to this question is “no”. The reason is that, left to their own devices, states and localities had spent a century establishing
equilibria between voting technologies and the laws, rules, and cultures associated with their use. As localities moved to automation in the 1980s and 1990s, they chose a technology upgrade path that was consistent with these equilibria. Jurisdictions that relied on hand-counted paper gravitated toward other paper-based systems, eventually settling on optical scanning, if they did not stop at punch cards. Jurisdictions that had used mechanical lever machines migrated to DREs.

Thus, the mandate for jurisdictions that were comfortable with paper-based voting systems to move over to an electronic system was ripe for the creation of political controversy. This time, the political system was attentive to the type of alarms that had been sounded in 1988. Opposition was aimed in two directions. The first was a heightening of the ongoing attack on Internet voting, which mainly focused its effort on stopping plans to use computer networks to transmit ballots to and from overseas military voters (Alvarez and Hall 2004; Alvarez and Hall 2008). The other was a more general effort to stop the spread of DREs, sensationalized by Harris (2004), but spearheaded more academically by a wide variety of computer scientists.32

It is unclear how deep in the psyche of public opinion this activism has sunk, because no nationwide polls probing the attitudes of voters about different types of voting machines have been taken. Polls taken in specific states — California, New Jersey, and Virginia — are consistent with the Ansolabehere-Stewart equilibrium story, with California voters generally opposing DREs, New Jersey voters supportive, and Virginia voters supporting or opposing based on the machines they currently use.

32 For a review of this literature see Stewart (2011b). It is perhaps not a coincidence that one of the most prominent anti-DRE computer scientists, David Dill of Stanford, lived in a county that had previously used punch cards for years. Indeed, in the Bay Area, the only county that did not use punch cards, San Mateo, used optical scanning. Another prominent computer scientist, Avi Rubin, worked in a region of Maryland that had used a mix of voting machines, including optical scanning, mechanical lever machines, and DREs. The politics in these two regions was consistent with the story I am telling here, at least initially, DREs were successfully resisted in California whereas they were adopted statewide in Maryland. Maryland has since decided to abandon their DREs, but not without a fight.
However, regardless of where public opinion stands, it is likely that any local official considering the new deployment of DREs knows that he or she is in for a fight. This fact has had consequences for the recent adoption of new voting equipment. Election Data Services has reported that in 2008, for the first time ever, the number of counties and registered voters using DREs was less than the number using them in the previous biennial election.

Perhaps just as important for the future of the voting machine industry, the presence of the DRE controversy has provided a convenient meme for the left in questioning the legitimacy of closely fought elections. The scant public opinion data on the subject shows that opposition to DREs rises steeply as voters become more liberal. The blogosphere was full of accusations that hacked DREs had lost the 2004 election in Ohio for Kerry, despite a repudiation of this charge by the Democratic National Committee (c.f. Kennedy (2006); Democratic National Committee (2005)). Because distrust of electronic voting machines resides overwhelmingly among the left, the results of the 2008 presidential election muted the volume of this concern.33 A test of this argument will come in 2012, should Obama lose by a small margin.

The voter fraud controversy

Although HAVA may not have stoked conservative concern over voter fraud in the same way that it provoked a backlash over electronic voting, in retrospect, it is now clear that HAVA was the opening salvo over Republican concerns with election fraud and the movement to raise barriers to voting, most notably by requiring voters to show photo identification at the polls.

It is unknown whether interest in voter fraud was organized around ideological and partisan lines before 2000, but the public opinion evidence since then demonstrates that it certainly is now. For instance, when asked in the 2008 SPAE how often voter fraud occurred in

33 For an extended variant of the argument being made here see (Stewart 2008a).
their communities, 55% of “very liberal” respondents answered, “it almost never happens,” compared to 28% of respondents who self-identified as very conservative.

Stories of the sort told by Sen. Bond in 2001 and 2002, on the way to adding the identification requirement to HAVA, have resonated with the public. Again, it is impossible to tell whether support for voter identification requirements has grown since 2000, but by 2008, support had risen to very high levels. Indeed, among the seven reform items asked about in the 2008 SPAE, requiring identification at the polls was by far the most popular, being supported by 76% of respondents, including 65% of Democrats. The next-most-popular reform proposal was making Election Day a holiday, at 58% support.

Although majorities of both Republican and Democratic voters support photo identification laws, Republican legislators are the ones who have championed efforts to enact them. The rush in many states during the 2011 state legislative season to enact photo-identification laws is not only an indicator of the popularity of the reform among Republican lawmakers, but an acknowledgement that if there is another electoral backlash in these states in 2012, their opportunities to pass photo ID laws will vanish.

Interestingly enough, it is possible to trace a path from the current attention to voter fraud and voter ID laws back to HAVA and its attention to improving voter registration lists. It is quite easy to argue that many of the examples of voter fraud highlighted by conservative politicians are, at most, registration fraud, if not an error of some sort. When registration fraud occurs, it is usually because of the over-zealousness of third-party registration canvassers. To some on the right, this is an invitation to advocate for legislation that prohibits third party groups from soliciting voter registrations, which seems unlikely to go very far. Another avenue is simply to have the state initiate voter registration, using data they already have about potential
voters in databases such as driver license files. It is not a large step from complying with HAVA’s requirement that voter registration files be integrated with driver’s license databases to making that linkage happen in real time — one could get a driver’s license and register to vote in the same transition, seamlessly. This is a strategy most successfully implemented in Delaware, which appears to be serving as a model to other states. Therefore, in an interesting way, conservative attention to the poor quality of voter registration lists may lead to real efforts to improve them, to the benefit of a large number of voters who would potentially support both parties, especially if the Delaware technology is extended to social service agencies.

Conclusion: The Relevance of HAVA for the Future

A central topic of this essay has been whether HAVA has had measurable consequences on the conduct of elections in America. The narrow policy question is whether HAVA has improved election administration. A fair answer to this question seems to be, “yes” — it has led to fewer votes being lost by voting machines and Election-Day administrative breakdowns, and has led to fewer voters being turned away because of registration problems. At the same time, it is unclear whether the provisions added to encourage greater accessibility to voting machines among the disabled has made much of a difference. In addition HAVA, either the provisions contained therein or the political process it fostered, played an important role in stoking paranoia about elections being stolen, either because of hacked voting machines or fraudulent voting. Concern over fraudulent voting may have occurred without HAVA ever passing, but it is hard to imagine

---


35 Of course, by tying voter registration closely to the driver’s license database, one risks the possibility of disenfranchising voters who do not have driver’s licenses, which is the major concern of photo-ID opponents. However, as the evidence from Maryland cited in Ngo (2011) reveals, a large number of voters with driver’s licenses may now be disenfranchised because of poor procedures.

36 I use this word advisedly, in the same sense of Hofstadter’s classic essay (Hofstadter 1965).
the anti-DRE movement being so active and successful without HAVA’s accessibility requirements.

In assessing the role that HAVA played in improving elections in America, it is natural to ask what role it will play in the coming years, as the problems that beset Palm Beach County recede into the background. In answering this question, it is important to ask what parts of the voting equation HAVA overlooked. The most obvious answer is that it overlooked absentee and by-mail voting, a phenomenon that has increased four-fold since 1972, and by roughly 60% since 2000. Insofar as HAVA failed to address voting by mail at all, it is unlikely to have much of an influence on the fastest-growing part of the electoral ecosystem.

Analysis by Stewart (2010) shows that the vote-by-mail pipeline is significantly “leakier” that the one for voting in person. The best data available suggest that 21% of all requests for absentee ballots in 2008 never resulted in a vote being recorded for president, either because the request was never received by the county election office, the returned absentee ballot was not received back at the election office, or the received ballot was rejected (Stewart 2010, p. 590.). In other words, the lost-vote rate among absentee ballots is an order-of-magnitude greater than the overall lost-vote rate. Similarly, a new paper by Alvarez, Beckett, and Stewart (2011) shows that although California has reduced its residual vote rate over the past two decades by upgrading voting machines, the rise in the residual vote rate due to an increase in vote-by-mail has essentially wiped out these voting machine gains.

Because many election administrators regard vote-by-mail as cheaper than maintaining voting precincts, it is likely that the use of the mails will only increase in the coming years, causing growth in “lost votes.” If the past is any indicator of the future, it seems that federal
attention to problems inherent in vote-by-mail will only occur if there is an electoral catastrophe in a presidential election involving absentee ballots.

Another major factor affecting the continued relevance of HAVA is the state of the economy and the future viability of the EAC. The dislike of the EAC by the Secretaries of State is well known; the 2010 election of Indiana’s former Secretary of State, Todd Rokita, to the House and his appointment to the House Administration Committee have given new energy to efforts to abolish the EAC.

In addition, unexpended funds that were part of the EAC’s election administration improvement program were zeroed-out under the FY 2011 continuing resolution (H.J.Res. 44) passed in early March 2011. This is the last of the “new money” poured into election administration improvement because of HAVA. Consequently, the most primitive, and underfunded, of public administration is ending the decade of election reform even more underfunded than before.

The real gains of the past decade should not be undersold. However, if there is one lesson to be learned from the Bush v. Gore saga and its aftermath, it is that well-run elections are hard to pull off. New attention and money have helped improve elections in America over the past decade. Let us hope we are not moving into a new era of inattention and penury in election administration.
Figure 1. Votes to pass H.R. 3295 (Dec. 12, 2001) and approve conference report (Oct. 10, 2002), as a function of DW-Nominate scores.

Note: graphs based on coefficients reported in Table 3.
Figure 2. Percentage of provisional ballots rejected and provisional ballots as a percentage of all ballots cast, 2008 presidential election.

Figure 3. Percentage of provisional ballots rejected and provisional ballots as a percentage of all ballots cast, 2008 presidential election, Ohio counties.


Table 1. Recommendations of the Florida Governor’s Select Task Force on Election Procedures, Standards, and Technology, 2001.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Recommendation number and summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voter education</td>
<td>1. Establish minimum standards for voter education</td>
</tr>
<tr>
<td></td>
<td>2. Best practices and funding for voter education</td>
</tr>
<tr>
<td></td>
<td>3. Create and publish voters’ bill of rights and responsibilities</td>
</tr>
<tr>
<td></td>
<td>4. Strengthening student civic education</td>
</tr>
<tr>
<td>Polling place practices</td>
<td>5. Recruit more qualified poll-workers</td>
</tr>
<tr>
<td></td>
<td>6. Regional, Internet, and distance training programs for poll-workers</td>
</tr>
<tr>
<td></td>
<td>7. Improve precinct communications</td>
</tr>
<tr>
<td></td>
<td>8. Voter comment cards and suggestion boxes</td>
</tr>
<tr>
<td>Election supervision</td>
<td>9. Non-partisan elections supervisors</td>
</tr>
<tr>
<td></td>
<td>10. No political involvement of county canvassing boards and state elections canvassing commission</td>
</tr>
<tr>
<td></td>
<td>11. Appeal of budgets for elections supervisors</td>
</tr>
<tr>
<td></td>
<td>27. Broad jurisdiction of state elections canvassing commission</td>
</tr>
<tr>
<td>Voting technology</td>
<td>12. Uniform and standardized statewide voting system for 2002 election cycle</td>
</tr>
<tr>
<td></td>
<td>13. Funding for new voting systems</td>
</tr>
<tr>
<td></td>
<td>14. Decertification of punch card, mechanical lever, paper ballot, and “marksense” central tabulation voting systems</td>
</tr>
<tr>
<td></td>
<td>15. Acceleration of certification of voting technology and continuous review of standards</td>
</tr>
<tr>
<td></td>
<td>16. Uniform statewide standards for counting ballots and for recounts for each type of voting system</td>
</tr>
<tr>
<td></td>
<td>21. Review ballot designs</td>
</tr>
<tr>
<td>Registration</td>
<td>17. Statewide online voter registration database</td>
</tr>
<tr>
<td></td>
<td>18. Voter registration and identification cards</td>
</tr>
<tr>
<td></td>
<td>22. Provisional ballots</td>
</tr>
<tr>
<td>Timing</td>
<td>19. Change in dates for primary elections</td>
</tr>
<tr>
<td></td>
<td>20. Uniform poll closing times</td>
</tr>
<tr>
<td></td>
<td>35. Expand the time between elections and for the certification of election results</td>
</tr>
<tr>
<td>Convenience voting</td>
<td>23. Absentee/convenience voting</td>
</tr>
<tr>
<td></td>
<td>24. Changes in requirements for information on absentee ballots and requests for absentee ballots</td>
</tr>
<tr>
<td></td>
<td>25. Challenges to absentee ballots</td>
</tr>
<tr>
<td></td>
<td>26. Internet voting</td>
</tr>
<tr>
<td>Recounts</td>
<td>28. Clear threshold for automatic manual vote recounts</td>
</tr>
<tr>
<td></td>
<td>29. Machine recounts deemed correct; manual recounts limited to ballots not counted by machines</td>
</tr>
<tr>
<td></td>
<td>30. Margins for automatic recounts</td>
</tr>
<tr>
<td></td>
<td>31. Manual recount process open</td>
</tr>
<tr>
<td></td>
<td>32. Automatic recounts in all parts of multi-county election districts</td>
</tr>
<tr>
<td></td>
<td>33. Recounts for entire county of district not limited to three precincts</td>
</tr>
<tr>
<td></td>
<td>34. Vagueness of standards for election contests</td>
</tr>
</tbody>
</table>

Source: (Governor's Select Task Force on Election Procedures 2001)
Table 2. Election reform bills attracting more than 10% of the chamber’s members as cosponsors, 107th Congress, 2001–2002.

<table>
<thead>
<tr>
<th>Bill</th>
<th>Primary sponsor</th>
<th>Number of cosponsors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>House</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.R. 775, Voting Improvement Act (Introduced Feb. 28, 2001)</td>
<td>Steny Hoyer (D-Md.), Ranking Member, House Administration Committee</td>
<td>70</td>
</tr>
<tr>
<td>H.R. 3295, Help America Vote Act of 2002 (Introduced Nov. 14, 2001)</td>
<td>Robert Nye, (R-Ohio), Chair, House Administration Committee; Deputy majority whip</td>
<td>172</td>
</tr>
<tr>
<td><strong>Senate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S. 218, Election Reform Act of 2001 (Introduced Jan. 30, 2001)</td>
<td>Mitch McConnell (R-Ky.), Chair/Ranking Member, Senate Rules and Administration Committee</td>
<td>14</td>
</tr>
<tr>
<td>S. 379, Federal Election Modernization Act of 2001 (Introduced Feb. 15, 2001)</td>
<td>Chuck Schumer (D-N.Y.), Member, Senate Rules and Administration Committee</td>
<td>12</td>
</tr>
<tr>
<td>S. 565, Martin Luther King, Jr. Equal Protection of Voting Rights Act of 2002 (Introduced Mar. 19, 2001)</td>
<td>Christopher Dodd (D-Conn.), Ranking Member/Chair, Senate Rules and Administration Committee</td>
<td>50</td>
</tr>
<tr>
<td>S. 953, Bipartisan Federal Election Reform Act of 2001 (Introduced May 24, 2001)</td>
<td>Mitch McConnell (R-Ky.), Chair/Ranking Member, Senate Rules and Administration Committee</td>
<td>70</td>
</tr>
</tbody>
</table>

Source: thomas.loc.gov
Table 3. Votes on H.R. 3294, 107th Congress. (Standard errors in parentheses)

<table>
<thead>
<tr>
<th></th>
<th>Passage</th>
<th>Conf. report</th>
<th>Recommit with instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>DW-NOMINATE</td>
<td>-5.18</td>
<td>1.91</td>
<td>-4.15</td>
</tr>
<tr>
<td></td>
<td>(1.06)</td>
<td>(0.60)</td>
<td>(0.83)</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.32</td>
<td>1.59</td>
<td>3.22</td>
</tr>
<tr>
<td></td>
<td>(0.66)</td>
<td>(0.27)</td>
<td>(0.49)</td>
</tr>
<tr>
<td>N</td>
<td>216</td>
<td>209</td>
<td>209</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>.25</td>
<td>.05</td>
<td>.16</td>
</tr>
<tr>
<td>llf</td>
<td>-50.13</td>
<td>-101.06</td>
<td>-82.21</td>
</tr>
</tbody>
</table>

Passage vote: House roll call 428, Dec. 12, 2001
Recommit with instructions vote: House roll call 429, December 12, 2001
Table 4. Effect of changing voting machines on the residual vote rate in presidential elections, 2000 – 2008. Local jurisdiction fixed effects. (Standard errors in parentheses.)

<table>
<thead>
<tr>
<th>Voting machine</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optical scanning</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>(omitted category)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punch cards</td>
<td>0.0071***</td>
<td>(0.0004)</td>
</tr>
<tr>
<td>Lever machines</td>
<td>-0.0027**</td>
<td>(0.0008)</td>
</tr>
<tr>
<td>Paper ballots</td>
<td>-0.0032</td>
<td>(0.0023)</td>
</tr>
<tr>
<td>DRE</td>
<td>-0.0001</td>
<td>(0.0004)</td>
</tr>
<tr>
<td>Mixed systems</td>
<td>0.0006</td>
<td>(0.0012)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 (omitted category)</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>-0.0063</td>
<td>(0.0012)</td>
</tr>
<tr>
<td>2008</td>
<td>-0.0054</td>
<td>(0.0027)</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.017</td>
<td>(0.0003)</td>
</tr>
</tbody>
</table>

N 14,363
R^2 .60
Fixed effects F-test: F(5543,8812) = 1.87, p < .0001

**p< .01
***p< .001
Table 5. Voting patterns comparing disabled and non-disabled voters, 2000 and 2008, using data from the Voting and Registration Supplement

<table>
<thead>
<tr>
<th></th>
<th>Disabled</th>
<th>Not disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration rate</td>
<td>64.7%</td>
<td>67.3%</td>
</tr>
<tr>
<td>Voting rate, if registered</td>
<td>75.8%</td>
<td>80.4%</td>
</tr>
<tr>
<td>Voting rate, unconditional</td>
<td>47.9%</td>
<td>53.0%</td>
</tr>
<tr>
<td>Modes of voting:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In person, on election day</td>
<td>82%</td>
<td>66%</td>
</tr>
<tr>
<td>Early</td>
<td>4%</td>
<td>15%</td>
</tr>
<tr>
<td>Absentee/by mail</td>
<td>15%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Table 6. Reasons for not voting, 2000 and 2008, disabled vs. non-disabled, using data from the Voting and Registration Supplement

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Illness or disability (own or family’s)</td>
<td>51.1%</td>
<td>44.3%</td>
<td>14.3%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Out of town or away from home</td>
<td>2.1%</td>
<td>3.3%</td>
<td>11.5%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Forgot to vote (or send in absentee ballot)</td>
<td>2.0%</td>
<td>1.9%</td>
<td>4.4%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Not interested, felt my vote wouldn’t count</td>
<td>9.4%</td>
<td>12.5%</td>
<td>13.4%</td>
<td>14.5%</td>
</tr>
<tr>
<td>Too busy; conflicting work or school schedule</td>
<td>2.7%</td>
<td>2.0%</td>
<td>23.6%</td>
<td>19.9%</td>
</tr>
<tr>
<td>Transportation problems</td>
<td>8.1%</td>
<td>7.4%</td>
<td>2.3%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Didn’t like candidates or campaign issues</td>
<td>7.1%</td>
<td>13.2%</td>
<td>8.4%</td>
<td>13.9%</td>
</tr>
<tr>
<td>Registration problems</td>
<td>6.3%</td>
<td>3.8%</td>
<td>7.5%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Bad weather conditions</td>
<td>1.4%</td>
<td>0.2%</td>
<td>0.7%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Inconvenient polling place or hours</td>
<td>1.2%</td>
<td>1.4%</td>
<td>2.9%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Other</td>
<td>8.6%</td>
<td>10.1%</td>
<td>11.1%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th></th>
<th>Disabled</th>
<th>Not disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voting rate, if registered</td>
<td>89%</td>
<td>95%</td>
</tr>
<tr>
<td>Modes of voting:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In person, on election day</td>
<td>57%</td>
<td>64%</td>
</tr>
<tr>
<td>Early</td>
<td>19%</td>
<td>18%</td>
</tr>
<tr>
<td>Absentee/by mail</td>
<td>24%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Source: Survey of the Performance of American Elections

<table>
<thead>
<tr>
<th>Reason</th>
<th>Disabled</th>
<th>Not disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wrong identification*</td>
<td>7.2%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Illness or disability (own or family’s)</td>
<td>39.1%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Out of town or away from home</td>
<td>13.9%</td>
<td>14.9%</td>
</tr>
<tr>
<td>Forgot to vote (or send in absentee ballot)</td>
<td>4.9%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Did not receive absentee ballot*</td>
<td>13.2%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Too busy; conflicting work or school schedule</td>
<td>22.1%</td>
<td>27.9%</td>
</tr>
<tr>
<td>Transportation problems</td>
<td>28.6%</td>
<td>10.7%</td>
</tr>
<tr>
<td>Didn’t like candidates or campaign issues</td>
<td>33.3%</td>
<td>32.8%</td>
</tr>
<tr>
<td>Registration problems</td>
<td>15.2%</td>
<td>13.4%</td>
</tr>
<tr>
<td>Bad weather conditions</td>
<td>4.3%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Inconvenient polling place or hours</td>
<td>11.0%</td>
<td>11.8%</td>
</tr>
<tr>
<td>Lines too long*</td>
<td>11.7%</td>
<td>14.8%</td>
</tr>
<tr>
<td>Did not know where to go to vote*</td>
<td>5.9%</td>
<td>14.2%</td>
</tr>
<tr>
<td>Did not receive ballot on time*</td>
<td>18.9%</td>
<td>12.6%</td>
</tr>
</tbody>
</table>

Source: Survey of the Performance of American Elections

*Response categories not appearing on the Voting and Registration Supplement.
Table 9. Comparison of the experience of disabled and non-disabled voters in the 2008 general election.

<table>
<thead>
<tr>
<th>Election Day and Early in-person voters</th>
<th>Disabled</th>
<th>Not disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had a “very easy” time finding the polling place*</td>
<td>85.8%</td>
<td>89.8%</td>
</tr>
<tr>
<td>Stated the polling place was run “very well”</td>
<td>80.9%</td>
<td>82.2%</td>
</tr>
<tr>
<td>Had a problem with voter registration</td>
<td>2.3%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Had a problem with voting equipment*</td>
<td>3.4%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Received help filling out ballot*</td>
<td>8.4%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Stated the poll workers were “excellent”</td>
<td>67.4%</td>
<td>67.3%</td>
</tr>
</tbody>
</table>

**Absentee and vote-by-mail voters**

| Had a problem getting a mail/absentee ballot                  | 2.5%     | 2.2%         |
| Had a problem filling out a mail/absentee ballot             | 0.9%     | 1.7%         |
| Received help filling out mail/absentee ballot               | 1.1%     | 2.1%         |
| Stated that it was “very easy” to fill out mail/absentee ballot | 86.0%    | 84.1%        |

**All voters**

| Stated s/he was very confident vote counted as cast*          | 68.1%    | 70.9%        |

Source: Survey of the Performance of American Elections

*Difference between disabled and non-disabled voters significant at $p < .05$. 


