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# A Brief Yet Practical Guide to Reforming U.S. Voter Registration Systems

Daron Shaw, Stephen Ansolabehere, and Charles Stewart III

## ABSTRACT

Those looking to improve the performance of elections in the United States often point to issues involving the voter registration system. A review of this system reveals that it is massive, decentralized, and vital to democratic functioning. The existing scholarly literature, coupled with our own reading of data from the 2012 elections, suggests several ways of improving the system, including adopting online registration for voters, using technology to improve lists and list management, working with private vendors to assess and improve the quality of registration lists, and developing a national list to facilitate analyses of administrative performance and best practices.

## INTRODUCTION

ONE OF THE TOP PRIORITIES for the Presidential Commission on Election Administration (PCEA) was to analyze and make specific recommendations on the American voter registration system. The placement of voter registration issues at the head of the to-do list for the commission is not surprising. Voter registration systems are the backbone of election administration in the United States today (Highton 2004). Lists of registered voters facilitate the operation of elections at the precinct level, communications by election officials and candidates and parties with voters, and the auditing of election results (Ansolabehere and Konisky 2006; Ansolabehere and Hersh 2010).

The most salient use of the voter registration lists is to authenticate a person at the polling place or election office, or in response to a request for an absentee ballot. Local election officials also use

voter registration to (1) set up precincts and to assign voters to voting locations, (2) communicate with voters, (3) distribute ballots, and (4) audit elections. Accurate voter lists are thus essential to the management of elections. The quality of the list can affect the ability of people to vote, the ability of election offices to detect problems, and the ability of courts and others monitoring elections to detect election fraud (Ansolabehere and Hersh 2010; McDonald 2007).<sup>1</sup>

Voter registration lists are also vitally important to political campaigns. Every state makes lists available to candidates and parties, and the candidates and parties use them to identify and communicate with likely supporters. In this way, accurate voter lists can facilitate participation.

During the course of their deliberations, the PCEA asked a variety of academics (ourselves included) to look at the registration system in the U.S., to identify “best practices,” and to make specific recommendations. The only stipulation was

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<sup>1</sup>In addition, the number of registered voters on the list is important for what is even on the ballot, as these are used to set nomination requirements, to determine the apportionment of representation, and (in many states) to verify the eligibility of those signing initiatives.

that the commission did not want to consider highly charged, polarized reforms requiring congressional legislation, such as automatic national registration or voter identification. In this article, we detail much of what we reported to the commission. We first examine the registration system in the U.S., noting its salient characteristics. Next, we consider the challenges facing the system. Finally, we recommend ideas for reforming the registration system: adopting online registration for voters, using technology to improve lists and list management, working with private vendors to assess and improve lists, and developing a national list to facilitate analyses of administrative performance and best practices.

### BASIC FACTS ABOUT REGISTRATION

The initial noteworthy fact is that voter registration in the United States is massive and largely decentralized, encompassing most adult American citizens. A few basic statistics convey the magnitude of the registration system. There are 217.6 million citizens over age 18 as of 2012; there are 191.8 million registration records on the voter rolls as of June 2013; there are 179.0 million “active” registration records.<sup>2</sup>

Second, American voter registration systems are highly decentralized, in both their management and use. Voter registration lists are maintained by local election offices to manage local, state, and federal elections. Since 2006, states have maintained statewide voter registration systems, as required by the Help America Vote Act (HAVA). Most statewide voter registration systems aggregate county lists and registration records, so the counties remain responsible for the quality of registration records.

The use of the lists is decentralized because the election system is disaggregated into precincts. Precincts have traditionally been the place where voting happens, and that is still true for roughly 63 percent of voters nationwide.<sup>3</sup> Precincts often correspond to neighborhoods or sufficiently small numbers of people that it is possible to process all of the voters in a single day. Interestingly, we know of only one study of the optimal number of precincts for a given state in order to best manage voters and votes on Election Day (Hill 2012).<sup>4</sup> Furthermore, while some states have statutes dictating the number of voters per precinct, we know of no empirical studies that estimate an optimal ratio.

The fact that many elections are run at the same time makes a large number of precincts unavoidable. Each precinct corresponds to a unique ballot, a combination of specific offices and ballot measures on which the residents of a given area vote. For example, Precinct 1 in a city might correspond to the 3rd district in the School Board, the 2nd District in the City Council, the 14th State House district, the 6th State Senate district, the 2nd Congressional District, and Water District A. Precinct 2, however, might correspond to a different combination of districts. The need to create unique ballots for each combination of races creates a need for many different precincts.<sup>5</sup> Vote centers, such as in Colorado and Indiana, can reduce the number of polling stations, but not the number of ballot styles. More generally, the registration lists are essential for making sure that each voter uses the correct ballot, and the lists must be prepared for the appropriate precinct.

These lists are distributed to precincts to verify voters at polling places on Election Day. The lists are also used in the local election office to verify the authenticity of absentee ballot requests and submissions and to determine which absentee and early voters ought to receive which ballots. The numbers here are daunting for those tasked with election administration. For example, in the U.S. there are approximately 8,000 election offices (at the county-level in most states and town-level in New England states, Michigan, and Wisconsin), along with approximately 186,000 precincts (almost 9,000 in Texas alone). That translates into roughly 1,000 registrants per precinct, and with 130.3 million voters in the 2012 election, roughly 800 voters per precinct.

A third fact of American registration is that the states, in the wake of HAVA, now compile voter

<sup>2</sup>Estimates are based on the authors’ interpretation of Catalist’s data (June 24, 2013), which includes North Dakota. The Election Administration Commission (EAC) recently issued its biennial voter registration report and estimates 194.2 million registrations, of which 170.4 million were active, for the November 2012 election.

<sup>3</sup>According to the 2012 Election Administration and Voting Survey, 63 percent of voters cast their ballots “at the polls,” compared to 19 percent absentee, 10 percent early voting, and 8 percent other.

<sup>4</sup>Several states, including Colorado, mandate a minimum number of polling places per 10,000 voters.

<sup>5</sup>It is true that for some states the consolidation of elections (and the attendant reduction in the need for distinct ballots) can reduce the number of precincts.

lists. Some states implemented the law as simple aggregations of county and municipal lists. These are called “bottom-up” statewide lists. Other states created more integrated systems in which the state lists include checks for duplicate records and other issues and then the state lists are redistributed to the local offices. These are called “top-down” lists.

The introduction of statewide lists is a significant change in the degree of decentralization of the registration systems. It allows the states to assist counties and towns with the management of lists. Some states have used these lists to help counties track people who have moved within the state and to determine obsolete records.

Still, even with these HAVA-mandated statewide registered voter lists, no official government entity maintains and manages an official national voter registry. A handful of political organizations and firms—such as Catalist and DataTrust—have aggregated the municipal, county, and state data files into national voter registration lists. These firms have “cleaned” and supplemented these lists by cross-checking them against other official and commercial lists of age-eligible persons. The lists can also be augmented with precinct-level records of voting in specific elections. In this regard, these nascent and unofficial national registered voter lists constitute an opportunity to compare and assess election data and performance.

A fourth and final fact is that there is considerable variation in the population size of jurisdictions that manage elections, and thus in the magnitude and complexity of the registration systems that they maintain. Half of all registration records in the United States are maintained by the 160 most populous counties (see Table 1). The other half of all records are maintained by the other 2,900 counties (or the towns and cities in those counties). Very different record management systems and software

are required for the most populous jurisdictions compared to those for the jurisdictions with relatively small populations or lists.

## REGISTRATION PROBLEMS AND CHALLENGES

First and foremost, registration issues can be a barrier to participation (Ansolabehere and Konisky 2006; Highton 2004; Wolfinger and Rosenstone 1980). The Current Population Survey (CPS) of the United States Bureau of the Census conducts a survey of roughly 75,000 respondents following each federal election. This is called the Voting and Registration Supplement to the CPS. One question asked in the survey is why non-voters did not cast a ballot. One response option category is “Registration Problem.” The question format and methodology of the survey has not changed over time, allowing for comparison of reasons for not voting over time.

The CPS data reveal that registration problems remain a barrier to voting, but there have been significant improvements over the past decade. Table 2 presents the percent of people stating that “Registration Problems” were the main reason they did not vote in a given general election.<sup>6</sup>

The decline from 6.9% in 2000 to 5.5% in 2012 is a statistically significant decrease of 1.4 percentage points. That improvement translates into approximately 1.2 million additional voters at the polls in 2012. Specifically, there were 87.3 million non-voters among the citizen voting age population of the United States (217.6 adults—130.3 voters). Had the rate of problems remained at 6.9% (the 2000 rate), instead of the 2012 rate of 5.5%, there would have been 1.2 million fewer votes in 2012. Moreover, a closer examination of the CPS data suggests that the improvements were across all segments of the population, rather than in particular groups.

These data are corroborated by our own survey of local election officials.<sup>7</sup> When asked which aspects

TABLE 1. NUMBER OF REGISTRANTS AND COUNTIES  
BY SIZE OF REGISTRATION LIST

<i>Size of list</i>	<i>Number of counties</i>	<i>Average number of registrants</i>	<i>Number of all registrants</i>
Fewer than 10,000 Names	1,055	5,125	5,406,875
10,000 to 50,000 Names	1,373	22,666	31,199,828
50,000 to 200,000 Names	490	97,298	47,676,054
200,000 to 1,000,000 Names	197	506,960	81,301,151
More than 1,000,000 Names	15	1,744,970	26,174,550

Source: Compiled by authors from Catalist Registration Database, June 24, 2013.

<sup>6</sup>Data come from the reports from <<http://www.census.gov/hhes/www/socdemo/voting/publications/p20/index.html>>.

<sup>7</sup>The survey was in the field from August 31 to October 11, 2013, and was delivered to all 7,779 local election officials from all 50 states (plus D.C., American Samoa, and Guam). We received 3,191 completed surveys for a response rate of 41.0 percent. Completed surveys were returned from every state except Wyoming.

TABLE 2. CURRENT POPULATION SURVEY REPORTED REASONS FOR NOT VOTING: REGISTRATION

<i>Year</i>	<i>Percent citing registration problems as reason for not voting</i>
2012	5.5%
2008	6.0%
2004	6.8%
2000	6.9%

of election administration had worked especially well in 2012, 16 percent said “the quality of voter registration lists and management of poll books.” Conversely, only two percent cited this as one of the “biggest concerns about 2012.” Less than one percent of local election officials said registration issues were a reason for lines at their jurisdictions.

This is not to suggest that registration issues are no longer an impediment to voting. Four percent of local election officials say that registration lists will be one of the administrative areas most in need of an upgrade 5–10 years from now. Moreover, the absolute rate with which non-voters cite Registration Problems as a barrier in the CPS remains a concern. The estimated 5.5 percent of all adult citizens in the United States who did not vote because of registration problems translates into 4.8 million persons. Therefore, one key question is how to reduce further the rate with which registration problems create barriers to voting.

A related problem is managing the registration records of individual voters. Local and state election offices have developed practices for managing registration lists over time. State and federal laws, especially the National Voter Registration Act (NVRA) and HAVA, impose further constraints on how the lists are maintained.

Typically, things work as follows. First, voters submit registration applications. Second, applications are received, inspected, and verified by the office. Incomplete forms are most often suspended, and the voter is contacted to see if the issue can be resolved and a valid registration obtained. Third, valid registration applications are recorded into a database at a local election office or in the office that manages a statewide voter file. Fourth, an individual’s previous record is usually modified or updated. If an individual was registered and indicates the address in the jurisdiction where he or she was registered, the election office updates the individual’s registration. If the individual was registered in another jurisdiction (state or county), the

election office sends the information to the jurisdiction at which the person was previously registered. Fifth, people for whom there is an indication that the registration may no longer be current are placed on an Inactive Voter list. Sixth, people on the Inactive list for two federal elections can be removed. (Other factors may trigger removals as well.)

This is a model in which the election offices have the primary responsibility for maintenance of voters’ registration records. Two key trends in state laws are shifting the responsibility for list management from the election office to the voters themselves. First, according to the National Conference of State Legislators (NCSL), 12 states plus the District of Columbia have adopted same-day registration (also called Election Day registration).<sup>8</sup> Three other states allow those who are voting early at an election office to register and vote at the same time throughout the period of early voting. Second, 21 states have adopted online voter registration, in which people have the opportunity to register or update their registrations over the Internet.<sup>9</sup> In other words, 36 states have adopted ways in which the voters have more immediate ability to manage their registrations. Nearly all of these changes in state laws have occurred since 2000.

One force drives many of the problems encountered in maintaining registration lists: residential mobility. Registration lists are usually thought of as static—all people who are registered and eligible to vote, say for the November 2012 general election. The American population, however, is on the move. Every year, 12 percent of people in the United States move from one residence to another. Every four years almost half of all Americans move. Furthermore, a preliminary analysis of CPS data suggests that respondents from states with more mobile populations are more likely to report registration issues, controlling for age and ethnicity.

The dynamism of the American population is reflected in the day-to-day operation of the lists. Registration lists change every day, as new records are added and obsolete records are dropped. The challenge for election offices is how to keep the

<sup>8</sup>“Same Day Voter Registration,” Report prepared by the National Conference of State Legislators, May 6, 2014. Accessed on December 16, 2014 at <<http://ncsl.org>>.

<sup>9</sup>“Online Registration,” Report prepared by the National Conference of State Legislators, June 30, 2014. Accessed on December 16, 2014 at <<http://ncsl.org>>.

list current and accurate as people move. That challenge is made even greater because the lists maintained by the election office are usually not keyed to other lists maintained by state or local governments, such as death records. In addition, most residential moves are within county, but county offices have not traditionally been able to track such moves.

A related challenge for the registration system is recording errors. The most troublesome errors are (1) incorrect information in records, such as typographical errors, (2) obsolete information, such as changes in names or signatures, (3) duplicate or obsolete records, such as when a person moves but does not notify the election office, and (4) improperly dropped records, such as when a person has not moved but is dropped from the rolls. Officials also cite the omission of information (blanks) and limited usability of information (entries are illegible) as major issues.

Errors in the registration databases can create other election administration difficulties. For example, many duplicate records can lead to inefficient distribution of poll workers to precincts. Also, a list with many incorrect records can slow down the processing of voters at polling places resulting in longer lines.

The development of measures of each type of error would be helpful to local and state election offices, in order to improve on list quality and to minimize election management problems created by omissions from lists or errors in records.

## REFORMS

We see several opportunities for innovation and improvement in the registration system. First, technology available today makes it possible for citizens to register online or when voting and to manage their registrations online. The states have begun to make this potential into a reality: 21 states have adopted online registration; 12 have adopted Same Day Registration, and 3 more allow registration at the time of early voting. We have not conducted empirical assessments of whether states that have adopted these reforms have actually improved their registration processes. But one recent study examining the effects of online registration in Arizona and Washington State concluded that the impact was positive for both voters and administrators (Barreto et al. 2010).

This reform also seems to have the approval of administrators. In our 2013 survey of over 8,000

local election officials, moving to online registration was one of the most common responses to an open-ended question about how to improve the election administration process. It was also repeatedly mentioned by state and county administrators at public hearings held by the PCEA.

Second, list management technology makes it possible to improve the quality of lists (Alvarez, Ansolabehere, and Stewart 2005; Stewart 2009). State and local election offices sometimes collaborate with technology firms, such as Lexis/Nexis, to maintain their voter files. These technologies allow the linking of many lists (for instance, lists from the postal service or the department of motor vehicles) to verify residential addresses, to track residential mobility or name changes, and even to fix typographical errors (such as in addresses). As noted by dozens of respondents to our local election official survey and by several state and county administrators who testified at the PCEA's public hearings, these technologies could (if appropriately deployed) help minimize errors in lists.

Third, measures of list quality developed by private vendors suggest that it is possible to develop comparable metrics of list quality and targets for improving registration lists. An example of a possible metric is the incidence of "Deadwood" (obsolete records, usually due to a person moving or dying) on Active and Inactive voter lists. Using National Change of Address (NCOA) and other postal lists, information from marketing firms, past vote records, and other the entire national registration list, Catalist has identified records that are "Deadwood." The data reveal that 7.3 percent of all registration records in the United States are "Deadwood," 3.0 percent of records on the Active lists in the states are "Deadwood," and 66.2 percent of records on Inactive lists are "Deadwood."

According to these figures, local election offices appear to be quite good at keeping pace with voters: three percent "Deadwood" among active registrants constitutes one-quarter of the estimated 12 percent of persons who move each year. The fact that one-third of Inactives appear to be "Not Deadwood" presents a challenge or goal for local election offices. These persons might reasonably be valid registrations and are individuals who might be encouraged to vote. The challenge or goal is to keep them active in elections, and to avoid the costs to the individuals and the election office of reregistering them. The Catalist indicators suggest a target and a possible goal: the

target is one-third and the goal would be to reduce the “Not Deadwood” portion of the Inactive list below one-third.

This is an example of how national registration data and list-matching technologies can be used to develop indicators of and targets for list quality. Having comparable metrics of list quality would allow election administrators to see what areas within their jurisdictions seem to have particularly high incidence of a given metric, so as to focus their efforts to improve lists. It would allow administrators to set reasonable targets for improving list quality within their office. It could also facilitate development of best practices, as comparable metrics of quality or performance would reveal which election offices appear to have avoided or solved specific problems.

Fourth, there exists no national publicly available list of total registrations and total votes cast at the precinct level. Such a list would facilitate measurement of election performance and help local election offices see where there may be localized problems with registration lists or with voting. This would also make it possible for jurisdictions that have problems to see what is occurring in other jurisdictions of similar size or demographic make-up and, thus, to identify which local election offices might have practices that could be emulated.

## SUMMARY AND CONCLUSION

Over the past decade there have been significant changes in the registration system in the states with the implementation of HAVA, the expansion of same-day registration and online registration, the adoption of new technologies, and the emergence of private firms dedicated to list management. These innovations have made the lists “smarter”—improving the ability of people to see their registration records, the ability of election offices to determine which records might be obsolete, and improving the ability of election offices and other users of this information to communicate with voters. Moreover, these changes have come hand-in-hand with reductions in the number of people who say that they could not vote because of registration problems. We believe the appropriate path forward builds on these reforms; most notably, embracing technological innovation, seeking system integration, and partnering with other states, jurisdictions, and leading vendors.

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## REFERENCES

- Alvarez, R. Michael, Stephen Ansolabehere, and Charles Stewart. 2005. “Studying Elections: Data Quality and Pitfalls in Measuring of Effects of Voting Technologies,” *Policy Studies Journal*, Vol. 33, No. 1: 15–24.
- Ansolabehere, Stephen and David M. Konisky. 2006. “The Introduction of Voter Registration and Its Effect on Turnout,” *Political Analysis*, Vol. 14, No. 1: 83–100.
- Ansolabehere, Stephen and Eitan Hersh, E. 2010. “The Quality of Voter Registration Records: A State-by-State Analysis.” *Report, Caltech/MIT Voting Technology Project*.
- Barreto, Matt A., Bonnie Glaser, Karin Mac Donald, Loren Collingwood, Francisco Pedraza, Barry Pump. 2010. “Online Voter Registration Systems in Arizona and Washington: Evaluating Usage, Public Confidence and Implementation Processes.” Joint Research Project of the Washington Institute of the Study of Ethnicity and Race (WISER) University of Washington, Seattle and the Election Administration Research Center (EARC) University of California, Berkeley.
- Highton, Benjamin. 2004. “Voter Registration and Turnout in the United States,” *Perspectives on Politics*, Vol. 2, No. 3: 507–515.
- Hill, Sarah A. 2012. “Election Administration Finance in California Counties.” *American Review of Public Administration*, Vol. 22, No. 5: 606–628.
- McDonald, Michael P. 2007. “The True Electorate: A Cross-Validation of Voter Registration Files and Election Survey Demographics,” *Public Opinion Quarterly*, Vol. 71, No. 4: 588–602.
- Stewart III, Charles. 2009. “Election Technology and the Voting Experience in 2008.” Paper presented at the annual meeting of the Midwest Political Science Association, Chicago, IL.
- Wolfinger, Raymond E., and Steven J. Rosenstone. 1980. *Who Votes?* New Haven, CT: Yale University Press.

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