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ELECTION DAY VOTER REGISTRATION IN THE UNITED STATES
How One-Step Voting Can Change the Composition of the
American Electorate

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For most Americans, voting requires two steps. First, an eligible citizen must register in some manner with an appropriate government agency. Second, once registered, the citizen can then cast a ballot on or before election day. The historical record provides examples of voter registration processes as early as 1801 in the state of Massachusetts, followed by Columbia, South Carolina in 1819, the state of Pennsylvania in 1836, and New York City in 1840. After the Civil War, voter registration systems proliferated throughout the nation, especially in large urban areas of the county. By 1929, only Arkansas, Indiana and Texas did not have voter registration systems in place.[1] Today, only North Dakota has no voter registration.

Generally, voter registration procedures were established to confront voter fraud. In urban areas, where political machines were entrenched, voter registration practices were enacted to combat certain practices of political machines. Thus, voter registration procedures were often enacted as a component of a broad package of election reform, aimed at reducing fraud and corruption by political machines.

Voter registration practices also limited the pool of voters. Over American history, requirements for voter registration have included residency, property or income, gender and race or ethnicity.[2] The exact set of requirements varied by location, with different political parties trying to disqualify the constituents of their opponents from the right to vote. The imposition of voter registration requirements, and the other election reforms enacted at the beginning of the 20th Century, had dramatic effects on voter participation. Hansen (2001) reports that turnout declined in the South from 64.2% in 1888 to 29.0% in 1904. Outside the South, turnout fell from 86.2% in 1888 to 67.7% in 1912. Clearly the imposition of voter registration requirements imposed an important new hurdle on voter participation in the United States.

The hurdle of voter registration stands higher for certain groups of voters. The seminal work by Rosenstone and Wolfinger (1980), using the 1972 Current Population Survey's Voter Supplement (CPS-VS), demonstrated that voter registration practices --- in particular practices like the extent to which election offices were open in evenings and during weekends, absentee voting, and the length of the pre-election closing period, all had some effect on voter turnout because they made it more difficult and costly for voters to participate. But the registration closing deadline had by far the greatest impact on turnout in the Rosenstone and Wolfinger study; residents of states with 30-day closing deadlines were anywhere from 3 to 9 percent less likely to turnout than residents of states with election day voter registration. And the impact of the registration closing deadline was greater for voters with lower levels of educational attainment, and those who were generally less able to navigate the voter registration process in their state.

Reform of the voter registration process, especially in recent decades, has focused on making procedures easier to navigate, and on developing multiple points of access into the voter registration process for potential voters. The most significant recent reform, the National Voter Registration Act (NVRA) of 1993, mandated that states provide citizens the opportunity to register or re-register to vote at many public facilities. NVRA also made it more difficult for election officials to "purge" voting rolls.

In some significant ways, NVRA has worked. In the 2000 Current Population Survey, 40% of those who said they were registered reported having registered at a Department of Motor Vehicles' office, 17% at a voter registration office, and 12% by mail. Unfortunately, there has been little clear impact of NVRA on overall levels of voter registration and turnout. According to statistics collected by the Federal Election Commission (FEC), 68% of eligible voters

nationwide were registered in 1992 and 61% of the voting aged population participated in that presidential election before NVRA was passed and implemented; by 2000, only 64% of the eligible electorate was registered and 55% of the voting aged population participated in that election.

The absence of a surge in registration and participation in the 1990s has caused many to question whether more can be done to increase voter turnout. One registration reform that has recently caught the attention of election reformers is *election day registration*, in other words, translating the current two-step voting process into a one-step process. As Rosenstone and Wolfinger found, and as subsequent research that we will discuss below has verified, election day registration can increase turnout significantly. Six states currently allow voters to register at polling places on election day: Maine, Minnesota and Wisconsin (adopting it statewide in 1976); Idaho, New Hampshire, and Wyoming (each adopting it prior to the 1994 elections to avoid implementation of NVRA reforms).[3]

In this paper we review the literature on the linkage between voter registration and turnout, with a particular emphasis on how election day registration works and how it impacts voter turnout. We then present our analysis of the 2000 CPS-VS, in which we estimate the potential national impact of election day registration in the United States. Using a novel counterfactual analysis, we examine not only the question about how much voter registration and turnout would increase if every state used election day registration, we also estimate the impact of this change on the composition of the American electorate. We find that the very groups who would be expected to find election day registration an easier process, those who are younger, more residentially mobile, lower on the socioeconomic ladder, nonwhite, and newly naturalized citizens of the US, would benefit in important ways from election day registration. We conclude

with additional discussion of some of the criticisms of election day registration, and a discussion of the current political climate for its possible implementation.

1. Election Day Registration

It has long been clear to social scientists that the voting registration process imposes a sometimes significant hurdle to voting. Practices like lengthy pre-election registration deadlines, limited office hours for election registration offices, and cumbersome requirements, impose costs that work to keep citizens from participating. But in the 2000 presidential election, other problems with the voter registration process became clear; for example, incorrect "purging" of registered voters apparently occurred in Florida because of errors made by a private contractor who was attempting to eliminate, from the voter rolls, felons not eligible to vote. Problems like these led the Caltech/MIT Voting Technology Project to estimate that as many as 3 million votes might not have been counted in the 2000 presidential election, of an estimated 6 million lost votes.

The CPS-VS includes a question asking all registered voters who did not vote a simple question about why they did not participate. In states without election day registration, 7.4% of registered non-voters said they did not vote because of a problem with their registration. In states with election day registration, only 1.1% of the registered non-voters said they did not vote because of a registration problem. Thus, decreasing the number of registered people who could not vote because of registration problems from 7.4% to 1.15 in 2000 would have produced another 2.5 million more votes nationally.

Not only are there fewer reports of problems with voter registration in states with election day registration, but both registration and turnout are higher in election day registration states. Based on voter registration and turnout statistics provided by the Federal Election Commission, 77.3% of the eligible population was registered to vote in non-election day registration states in 2000; 88.8% of the eligible population was registered in election day registration states. Furthermore, 50.5% of the voting aged population turned out in non-election day registration states in the 2000 presidential election, while 65.6% turned out to vote in the election-day registration states.[4]

The differences in turnout rates between states with and without election day registration make a great deal of sense for two different reasons. The first fits within the standard "calculus of voting" formalized by Riker and Ordeshook (1968), where the expected returns a voter gets from participating in an election can be understood as a function of the benefits (B), probability of breaking a tie (P), the costs (C) and the voter's perceptions of civic duty (D), summarized in the famous equation, $V = P*B - C + D$.[5] Within this framework, election day registration works to reduce the costs of voting. Instead of figuring out weeks before the election where to register, working through the registration requirements, and completing application materials to register, in states with election day registration all a citizen needs to do is show up at the polling place on election day. Thus, election day registration reduces costs, and by reducing costs, it serves to increase voter turnout.

Importantly, election day registration also works to boost turnout because it interacts with the dynamics of political campaigns. Campaigns in modern American politics build in intensity in the weeks, and even days, right before an election. Campaigns send out most of their direct mail in the days before an election, they engage in most of their media efforts in the days right

before an election, and the media's attention is most focused on the upcoming campaigns right before an election. Thus, in states that do not use election day registration, the period of greatest campaign and media intensity occurs while citizens who are not registered to participate cannot register. On the other hand, in states with election day registration the peak in campaign intensity and media attention obviously can serve to impact voter turnout, by influencing perceptions of benefits, probabilities of being pivotal, or pangs of civic duty.

Not surprisingly, the research literature to date shows significant increases in voter turnout in states that have transitioned to election day registration. Studies by Knack (2001), Mitchell and Wlezian (1995), Rhine (1995), Teixeira (1992), Wolfinger and Rosenstone (1980), and Smolka (1977) conclude that turnout increased by somewhere between 3 and 6 percent in the so-called "first wave" of election-day registration states, Maine, Minnesota and Wisconsin.[6] The "second wave" election day registration states, given that they have only implemented this type of voter registration practice since 1993, are somewhat more difficult to evaluate; Knack (2001) examines the 1994 and 1996 elections in the three "second wave" states and finds that turnout increased in the same 3 to 6 percent range in those two elections. Importantly, voter turnout in the 2000 presidential election averaged 7.6% higher than the national average in the three "second wave" states (down slightly from 8.8% higher than the national average in 1996), and 16.1% higher in the "first wave" states than the national average.

In this paper we examine the potential impact of election day registration from a different angle than in previous studies of this voter registration practice, using more recent data. With data from the 2000 CPS-VS, we compare the composition of the potential electorate and the electorate, between election day registration and non-election day registration states. We then use a random effects logit model to estimate the impact that election day registration has on both

voter registration and turnout. Last, we use the random effects logit results to produce counterfactual predictions --- in this case, the counterfactual prediction focuses on the extent to which voter registration and turnout would increase if all non-election day registration states had used election day registration in the 2000 presidential election, and the extent to which the composition of the electorate would have been altered. We find, not surprisingly, that voter registration and turnout would increase dramatically under our counterfactual scenario, and that both would increase for the social groups whom currently have the lowest registration and turnout rates.

2. Methodology for Studying the Impact of EDR

To estimate the impact of election day registration in the United States we performed statistical analyses on the reported voting behavior of individuals who responded to surveys conducted by the United States Census Bureau in 2000. In doing so, we examine registration and turnout among eligible voters across the U.S. controlling for both individual characteristics as well as state characteristics – most importantly the implementation of EDR in the six states listed above. We do this with Current Population Survey's Voter Supplement (CPS-VS) data collected by the Bureau of the Census at the time of the general elections in 2000.[7]

The CPS-VS is a monthly survey of about 50,000 households conducted for the Bureau of Labor Statistics. The survey has been conducted for more than 50 years. In each even-numbered year since 1964, the November Current Population Survey has included questions about registration and turnout. The sheer size of this data collection makes it particularly well suited to our analysis. Unlike the NES and GSS collections, the CPS-VS survey is administered

to a large sample of citizens in each of the 50 U.S. states. Thus it yields very accurate estimates of the influence of both individual and state institutional factors on voting behavior. The primary drawback to the use of the CPS-VS is that it does not include questions about political attitudes, preferences, or opinions.

A long literature in political science on voting and turnout extending back to the 1940s demonstrates that voting and turnout are strongly correlated with demographic variables – particularly age, education and income.[8] Common theories of voting behavior suggest that these variables affect the costs an individual incurs in finding out about political issues, the candidates running for office, as well as the mechanical hurdles associated with voting such as the registration deadline and the location of polling places. For this reason, we include the following individual-specific variables in our analysis: age, education, race, gender, marital status, family income, home ownership, whether or not one is a native-born U.S. citizen and length of time at current address.[9]

Four factors -- the individual's age, education, race and income -- are coded categorically. The respondent's age is measured using five dummy variables denoting an age of 18 to 25 years, 26 to 35 years, 36 to 45 years, 46 to 60 years or 61 to 75 years. The respondent's education is measured with three variables indicating that he/she has some grade/high school education, a high school degree or some college education (a B.A. degree is the omitted category). The race of the respondent is measured by three dummy variables denoting whether or not he/she self identifies as white, black or Hispanic. Lastly, the respondent's family income is categorized by three variables demarcating an income of $0-20,000 per year, $20-40,000 per year or $40-60,000 per year ($60,000 and up is the omitted category). Gender, marital status, home ownership, whether or not one is a native born citizen and length of time at current address

are each measured by simple dummy variables. If each of these variables takes on a value of one, the respondent is male, married, a native born U.S. citizen and a homeowner with less than six months at his/her current address. A value of zero for any of these variables denotes otherwise for the feature to which the variable pertains.

With this data of individual-specific characteristics we merge relevant contextual information from the Council of State Governments (2000-01) using state codes included by the CPS-VS.[10] Three of these variables are determined by state electoral practices: whether or not the state has a voter registration system, the number of days before the election that is the registration deadline and whether or not the state has election day registration (EDR).[11] Three other variables are determined by the competitiveness in the relevant state of the year's gubernatorial and senate races, as well as in 2000 the competitiveness in the state of the presidential race. For each of these races we produce a dummy variable that is coded a one when the result of the designated race was determined by a margin of 5% or less of the total number of votes.

An important feature of EDR is its potential to increase turnout and registration more strongly among those who face high costs of voting and are therefore traditionally less likely to turnout and vote. To test for such effects we include in our analysis interactions between the dummy variable indicating EDR and the variables measuring the respondent's age, education, family income, whether or not he/she is native born and length of time at his/her current address. We do not include interactions of EDR with every individual-level variable included in the analysis because many are statistically insignificantly related to registration and turnout and when included demand such a multitude of coefficients that estimation is difficult.

3.   Assessing the Potential Impact of EDR in 2000

The data used in our analysis is summarized in Tables 1 and 2. Tables 1 and 2, respectively, describe the voting age population and the voting population (those who reported voting in the general election to the CPS-VS) for the 2000 presidential election. The numbers shown reflect the frequency weights assigned to each observation by the CPS-VS. Each of these tables shows the composition of voters or eligible voters segmented by geography: in all states combined, in all EDR states combined, and in all non-EDR states combined.

Tables 1 and 2 Go Here

Beginning with Table 1, where we provide the basic demographic statistics regarding the composition of the eligible voting population for all states, the election day states, and the non-election day registration states, we do see some important differences and some places where there are no striking differences. First, in terms of basic parameters of political participation, in the 2000 election we see higher voter registration rates in EDR relative to non-EDR states: 84% of eligible voters in EDR states are registered, relative to almost 78% in the non-EDR states. The higher rates of registration translate into higher estimates of voter turnout in the EDR states, as 74% of registered voters in those states voted, while 66% of registered voters in the non-EDR states claim to have voted.

Second, turning to the demographic attributes of the eligible electorate, we see few striking differences in the age distributions in EDR and non-EDR states. Further, we see only slight differences in the educational attainment in EDR relative to non-EDR states, with the

eligible voting population being slightly more likely to have a high school or some college degree in the EDR states. Furthermore, we see little difference between the two sets of states in terms of the distributions of annual family income and residential mobility.

We do see important differences in Table 1 in three areas. One is the racial and ethnic composition of the eligible electorate: in non-EDR states, the eligible electorate is substantially more non-White than in EDR states. In the six EDR states, the eligible electorate is 94% White; in the non-EDR states, the eligible electorate is 77% White, 13% Black, 7% Hispanic, and 3% Other race. We also see that in non-EDR states the marriage rate is lower than in EDR states (57% relative to 62%), and that the rate of non-native born citizens in the eligible voting population is higher in the non-EDR states (7% relative to 2%).

Turning to Table 2, where we document the composition of the voting population in all states, the EDR states, and the non-EDR states, we see that the same basic patterns as in Table 1 (the eligible voting population): EDR states have a voting population that is slightly younger, slightly more comprised of voters with high school or some college, more White, more likely to be married, and more likely to be native born. These results indicate that election day registration, like other reforms easing the voter registration process, does not radically alter the basic composition of the voting population (for a similar result, see Highton and Wolfinger 2001). Instead, the easing of voter registration requirements through reforms like election day registration tend to expand the size of the registered and voting populations --- and not necessarily their underlying compositions.

Now, we turn to a multivariate statistical analysis of these same data. Our purpose with this analysis is to explain two things: voter registration and voter turnout. As dependent variables for a multivariate statistical model, each of these are binary. A registration value of

one indicates being registered to vote and a turnout value of one indicates having turned out to vote whereas zeros for each variable indicate the opposite. Traditionally, a simple binary logit model is appropriate for this type of analysis. However, because we are especially interested in the differing effects of state institutions on turnout and registration we wish to control for the random disturbances that may be unique to each of the fifty U.S. states. We do this with a random-effects logit model.[12]

We estimate two such random-effects logit models – one predicting voter registration and another predicting turnout for the 2000 general election. The coefficient estimates and associated standard errors are presented in Tables 3 (registration) and 4 (turnout). In each table we provide the coefficient estimate, the standard error, and stars indicating whether each coefficient estimate is statistically significant at conventional levels.

Tables 3 and 4 Go Here

In Table 3, where we give the random effects logit estimates for voter registration, we see that all of the non-interactive variables are statistically significant. Thus, based on these estimates, we can say that the likelihood an eligible citizen is registered to vote is influenced by their age, education, race, marital status, gender, family income, residential mobility, and whether they are native born. Importantly, we find that the likelihood of registration increases as a voter gets older, as their educational attainment increases, and as their family income increases. Women, married individuals, native born citizens, and those who have not moved residences recently are all more likely to be registered. Last, we find that Blacks, Whites, and Hispanics are more likely to be registered than those of other races.

Turning to the institutional variables in Table 3, we see that the variable for EDR is positive and significant; this demonstrates that the likelihood of registration is higher in EDR states relative to non-EDR states, ceteris paribus. We also see that the election closeness variables are significant, but differentially signed: close Senate races lead to higher registration, while close gubernatorial or presidential races lead to lower voter registration. Lastly, the interactions between EDR and voter demographics produce few statistically significant estimates in the voter registration model: only in one case (high school degree) do we see a significant interaction between that variable and EDR.

Table 4 presents the random effects logit results for the voter turnout model. The results here for the demographic attributes are essentially in line with previous results in the literature; the likelihood of turnout is higher for older voters, for those with greater educational attainment, and those with higher family incomes. Registered voters who are female, married, residentially stable, and native born, are all more likely to turnout. Lastly, Blacks, Whites, and Hispanics are all more likely to turnout than those of other races.

As far as institutional variables are concerned in the turnout model reported in Table 4, we find first that the EDR variable is significant and positive --- voters in EDR states are more likely to turnout, ceteris partibus. We also find that the longer the pre-election registration requirement in the state, the lower the likelihood is of voter turnout. In Table 4, two of the electoral closeness variables are statistically significant; having a close senate race leads to a higher likelihood of turnout, while having a close presidential contest leads to a lower likelihood of voter turnout. The EDR interaction terms are largely statistically insignificant. We only find a statistically significant interaction in the voter turnout model for family income.

It is important to recognize the implications of the non-linear relationship between the individual's estimated utility for the dependent variable action (registering or voting) and the probability that he/she takes that action. This non-linearity means that the magnitude of the impact of an independent variable on the likelihood that an individual registers or votes can be better understood by calculating the change in the predicted probabilities due to shifts in the independent variable, rather than by simply looking at tables of estimated coefficients. This is especially true for understanding the effects of interactions like those between EDR and the cost variables. For this reason, the predicted coefficients for the interaction variables tell us little about their true impact on the individual's likely action. It is only by calculating the change in the probabilities of an individual voting or registering under counterfactual scenarios that we may understand the impact of a variable on the individual's behavior.

Given this, we evaluate the effect of EDR on registration and voting by simulating the change in an individual's predicted probabilities of taking either action, had all states used EDR in the 2000 presidential election. Taking the estimated coefficients shown in Tables 3 and 4 along with the data summarized in Tables 1 and 2 we first calculate the predicted probabilities that each CPS-VS eligible voter registered and voted. We then set the values of the EDR variables to be what they would be if every state implemented EDR and adjust the EDR interactions accordingly. With this set of independent variables and our coefficients in Tables 3 and 4 we re-calculate the predicted probabilities that each eligible voter registered and voted. Averaging across all eligible voters for each of these two sets of predicted probabilities and taking the difference between them gives us an estimate of the increase in the aggregate rates of registration and turnout nationally under EDR.

Tables 5 and 6 show these predictions. The expected change in registration and turnout by rate and number is then broken down by the demographic categorizations shown in Tables 1 and 2. The change in the number of eligible voters who are registered to vote or who turnout to vote is calculated by multiplying the percent of change by the estimated number of eligible voters falling into each relevant demographic category. The first table (5) shows the changes in voter registration and the second table (6) shows the changes in voter turnout.

Tables 5 and 6 Go Here

As the first row of Table 5 shows, voter registration would increase dramatically in the United States under EDR. We show in the table that 76% of the eligible voters nationally are registered ---- if all states transitioned to EDR we estimate that the national registration rate would increase to almost 82%, a 5.7% increase over the current national voter registration rate. This is a very substantial increase in voter registration, and would result in a number of important consequences. First, once a citizen is on the registration rolls, he or she can be contacted by state or local election officials and informed about future elections; this will serve to increase the voter turnout rate in future elections, and potentially can lead to a more informed electorate as more citizens will have access to voter information guides. Second, as voter registration problems are a significant source of lost votes in elections, increasing the number of people on the rolls will alleviate registration problems at polling places on election day --- and even if those registration problems arise, they can be quickly and easily eliminated by simply allowing the voter to re-register at the polling place.

Furthermore, Table 5 demonstrates that under election day registration, demographic groups with lower registration rates will see the largest gains in voter registration. There could be greater increases in voter registration for younger relative to older citizens, and for those at the lower rungs of the educational attainment ladder relative to those at the higher levels. We see stronger increases in voter registration for non-Whites than for whites, for those who have moved in the past six months, for the unmarried and non-native born.

Table 6 documents our counterfactual results for voter turnout, based on simulating the impact on voter turnout that might have been seen had all states used election day registration procedures in the 2000 presidential election. First, in the top row of Table 6, we present our overall estimate of the impact of election day registration on voter turnout in this election; we estimate that voter turnout could have increased by 8.1%, from almost 63% to almost 71%. This is obviously a substantial increase in voter turnout, resulting from simply making the voting process into a one-step system.

Furthermore, in Table 6 we also find that groups with the lowest turnout rates see the most substantial gains under our national election day registration scenario. We estimate that turnout among the 18 to 25 year old group could increase nationally by almost 12%, under national election day registration. National turnout could increase by almost 11% for Hispanics, 12% for Asians and other racial groups, and 7.5% for Blacks. We estimate almost a 10% increase in turnout for those who have moved residences in the past six months, a 9% increase in turnout for non-married citizens, and a 12% for non-natives.

Thus, our analysis of the 2000 CPS-VS data demonstrates that election day voter registration holds substantial promise for increasing voter registration and turnout nationally. Had all states used election day registration procedures in the 2000 presidential election, the

national registration rate would have been almost 6% higher and the national turnout rate would have been almost 8% higher. With election day registration in place in the 2000 presidential election we would not have witnessed citizens being denied the right to vote due to errors or problems with their voter registration status. We would instead have seen higher rates of registration and turnout by groups in the eligible electorate that have the lowest rates of political participation.

4. Is EDR A Necessary Reform?

Allowing American citizens to register and vote on election day, in their local polling places, is a reform that our analysis shows could increase voter participation rates. Furthermore, the increase in participation should come from groups that currently have low participation rates, especially the young, minorities, and those who move frequently.

There are two significant criticisms of election day registration. The first criticism that is leveled against election day registration is that it may increase the potential for voting fraud. These critics assert that nothing could stop groups of ineligible individuals from registering and voting, and that as they would be casting "live" ballots their illegal votes could never be tracked and eventually removed from the election tally.

However, in the six states that currently use election day registration, there is not an unusually high number of cases of voting fraud. In particular, we have interviewed local election officials in Minnesota and Wisconsin, especially in Minneapolis-St. Paul and Milwaukee areas, and have found only a handful of cases of fraud involving a very small number of votes over the last decade.[13] This in our opinion is due not to the unique political cultures of these six states,

but instead to the fact that these states have made substantial investments in minimizing the risks associated with election day registration. Simply by requiring that those who are registering on election day provide some form of valid identification is one important safeguard. Another is providing stiff penalties for fraud and manipulation, and giving adequate resources to election officials and law enforcement agencies to root out attempted fraud quickly and effectively. Other innovations could be introduced, like using "provisional" ballots for election day registrants so that election officials can validate the eligibility of each new registered voter immediately after the election; another would be introducing into each polling place an electronic copy of the statewide voter registration database which would allow for easy checks on current registration status for those who are merely changing their residential address.

The other criticism of election day registration is that it makes the process of election administration more difficult and costly. We have been able to find no evidence that election jurisdictions that have election day registration have significantly higher costs per vote, so it is not clear that election day registration is necessarily more costly. Rather, election day registration simply moves much of the pre-election burden of registration tasks to the post-election period; that is, rather than having to expend resources in the registration period before the election to update databases, most of this work can occur after the election. Unfortunately, obtaining quality data on the exact costs of election administration is difficult. According to data we obtained from Minneapolis and Milwaukee, in the 2000 election it cost each city $3.30 and $3.65 per person of voting age to run their elections (respectively). By way of comparison, three urban election jurisdictions that we have election administration cost data from in California – a state that does not have election day voter registration – do not have dramatically lower election costs; Los Angeles County spent $3.80 per voting aged person, Orange County spent $3.06, and

the City of San Francisco spent about $10 for every voting aged person.[14]   Thus it does not appear that election day registration necessarily increases the cost of elections.

However, there is no doubt that election day registration does complicate the election process in the polling place. Polling place workers need to serve two tasks --- registering new voters and assisting them as they cast their ballots. States with election day registration have developed many innovative polling place practices to deal with these administrative issues, like having "greeters" immediately inside the polling place, helping direct voters either to a table where they can register or to a table where they can vote. Getting new voters to the right polling place is also a difficult administrative task, especially in the election cycles immediately following a transition to election day registration. But again, election administrators in election day registration states have devised a variety of strategies to educate potential voters about their correct polling places, thus mitigating problems on election day.

In the aftermath of the 2000 presidential election, interest in election day registration has arisen in a number of states. In 2002, election day registration was introduced as a ballot measure in California and Colorado, but in both states these ballot measures were defeated.[15] Currently, there is discussion of election day registration in a wide variety of other states, ranging from Connecticut and Massachusetts to North Carolina and California.[16]   Some observers and civil rights advocates have argued that the federal election reform legislation's (the "Help America Vote Act") new provisions for voter registration and provisional balloting give states the opportunity to implement election day registration as a way to comply with the new regulations for federal elections imposed by the federal government.[17]

In the final analysis, we see the potential problems that are argued to be associated with election day registration as problems that can be solved. We also see that the potential for

increasing participation, especially by groups of voters now with relatively low rates of participation, as a significant motivation for implementing election day registration nationwide.

Notes

1 For further discussion of the early history of voter registration systems in the United States, see Harris (1929); Hansen (2001); Keyssar (2000), Rosenstone and Hansen (1993).

2 See Keyssar (2000) for details.

3 NVRA allowed states to circumvent adoption of its provisions provided they implement election day registration before the 1994 elections. Oregon had election day registration beginning in the 1976, but it was repealed in 1985 by state initiative. Also, Ohio adopted election day registration in 1977 but it was also repealed by state initiative in that same year. See Brians (1997), Knack (2001), and Rhine (1995) for further details regarding the Oregon experience with election day registration.

4 Federal Election Commission, http://www.fec.gov/pages/2000turnout/reg&to00.html. The registration data presented here do not include data from Wisconsin nor North Dakota, neither of which provide statewide registration information.

5 There is an enormous literature on the "calculus of voting"; we use it here as a heuristic to discuss how election day registration impacts the decision to turnout. For further discussion of this model of turnout, see Aldrich (1993), Ferejohn and Fiorina (1974), Jackman (1993), and Schuessler (2000).

6 As Knack (2001) points out, Oregon did not have the same type of election day registration practice as the other three "first wave" states. Oregon citizens could not register to vote at their polling place, but instead, had to register on election day at a different location and then proceed to their polling place to vote. Knack concludes that "Oregon's experience thus suggests that EDR is largely ineffective unless voters can register at the polls" (p. 69).

7 We also conducted this same analysis on the 1998 and 2000 elections, but we only utilize the 2000 data in this paper. The 1998 analysis confirms the conclusions reported here for the 2000 election, and the 1998 results are available from the authors upon request.

8 See Lazarsfeld, Berelson, and Gaudet, (1944); Campbell, Converse, Miller, and Stokes, (1964).

9 We are unable to include home ownership in the 2000 analysis as the CPS-VS discontinued this variable in 2000. Also, the CPS-VS did not ask non-citizens whether or not they voted, meaning we are not able to evaluate the relationship between EDR and voter fraud.

10 The Council of State Governments, (1998-99, 2000-01).

11 This variable is coded a one for every state but North Dakota.

12 The random effects logit model specifies utility earned by voter i from state n is:

$$U_{in} = KX_{in} + \chi_n + \Pi_{in}$$

Where X_{in} is a vector of characteristics of the ith individual in the nth state, K is a parameter to be estimated, χ_n is the random error characterizing state n and Π_{in} is the random error term characterizing the individual i in state n. Assuming the error terms are uncorrelated and independent across observations, the logit probability is given by:

$$\Pr(Y_{in}=1)=\int_{-\infty}^{\infty} (1/(2\pi\sigma_\chi)^{1/2})\exp(-\chi^2_n/2\sigma^2_\upsilon)[\Pi^{jn}_{i=1} F(KX_{in} + \chi_n)]d\chi_n$$

We use the STATA xtlogit procedure to estimate this random effects logit specification.

13 Phone interviews were conducted by Stephen Ansolabehere with officials in these two states: January 30, 2002 (interview with Dani Connors-Smith, Minneapolis city election official); January 31, 2002 (Patty Hansen, Hennepin County, Minnesota, election official); February 6, 2002 (Ramsey County, Minnesota, election official); February 6, 2002 (Mike Mahoney, Milwaukee County Assistant County Attorney). Similar conclusions about the low rate of fraud in states that currently use EDR are in Minnite and Callahan (2003), pages 26-28.

14 See page 18, and footnotes 32 and 33 (page 24), Alvarez and Ansolabehere (2002).

15 In Colorado, election day registration was Amendment 30, and 61% of those who participated in the 2002 general election in Colorado voted against this measure. Election day registration was on the 2002 general election ballot in California as Proposition 52, and 59% of voters participating in that election voted against this measure.

16 In June 2003, H.B. 6370 passed both houses of the Connecticut legislature, and this measure will if signed by their governor make Connecticut the seventh state to use election day registration. Discussions in Massachusetts and North Carolina about the issue have been reported recently, and in California A.B. 526 would allow Alameda County to serve as a pilot project to study the implementation of election day registration in that state.

17 See, for example, the statement from Demos (http://www.demos-usa.org/HAVA/EDR-HAVA.pdf), Common Cause (http://www.commoncause.org/states/ER-implementation.pdf), and the Leadership Conference on Civil Rights (http://www.civilrights.org/issues/voting/details.cfm?id=11255).

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Table 1
Composition of the Eligible Voter Population
2000

Variable	All States Percent of Sample	All States Number of Observations	EDR States Percent of Sample	EDR States Number of Observations	Non-EDR States Percent of Sample	Non-EDR States Number of Observations
Overall	100	186366450	5.5	10224194	94.5	176142256
Voted	66.4	110825697	74.2	6975668	66	103850029
Didn't Vote	33.6	56021391	25.8	2424654	34	53596737
Registered	78.1	129549356	84.4	7881947	77.7	121667409
Not Registered	21.9	36297887	15.7	1462113	22.3	34835774
Age						
18 to 25	14.4	26917474	14.2	1448147	14.5	25469326
26 to 35	17.8	33100908	17.7	1813842	17.8	31287066
36 to 45	21.7	40495955	22.6	2309671	21.7	38186284
46 to 60	24.8	46124925	26.1	2663825	24.7	43462000
61 to 75	14.3	26684535	12.7	1295810	14.4	25388726
76 to 90	7	13042653	6.8	692898	7	12349755
Education						
Some Grade or High School	14.3	26586135	11.1	1132124	14.5	25454011
High School Degree	33.5	62425981	35.6	3634408	33.4	58791573
Some College	28.3	52799924	30.9	3161043	28.2	49638881
Bachelor of Arts Degree	23.9	44554410	22.5	2296618	24	42257792
Race						
Black	12	22409056	2.5	254552	12.6	22154504
Hispanic	7.1	13158726	1.6	158119	7.4	13000606
White	77.7	144731471	94.2	9628979	76.7	135102492
Other	3.3	6067198	1.8	182543	3.3	5884654
Annual Family Income						
0 to 20K	19.5	30080076	16.8	1489074	19.7	28591002
20 to 40K	26.9	41461438	27.7	2452443	26.8	39008995
40 to 60K	19.7	30351078	21.4	1897210	19.6	28453869
60K or more	34	52418267	34.2	3029318	34	49388950
Length of Time at Address						
0 to 6 Months	9.3	17317948	9.2	938678	9.3	16379270
More than 6 Months	90.7	169048502	90.8	9285516	90.7	159762986
Married	57.2	106643599	62.1	6347094	56.9	100296504
Not Married	42.8	79722851	37.9	3877099	43.1	75845752
Native born	92.9	173032374	97.7	9992221	92.6	163040153
Not native born	7.2	13334076	2.3	231972	7.4	13102104

Table 2
Composition of the Voting Population
2000

Variable	All States		EDR States		Non-EDR States	
	Percent of Sample	Number of Observations	Percent of Sample	Number of Observations	Percent of Sample	Number of Observations
Overall	100	186366450	5.5	10224194	94.5	176142256
Age						
18 to 25	8.9	9887414	9.7	673177	8.9	9214237
26 to 35	15.5	17220631	15.8	1104299	15.5	16116332
36 to 45	22.3	24687415	23	1603488	22.2	23083927
46 to 60	28.1	31150422	29.1	2028984	28	29121439
61 to 75	17.4	19247347	15.1	1054582	17.5	18192765
76 to 90	7.8	8632467	7.3	511139	7.8	8121328
Education						
Some Grade or High School	9.2	10212586	8.1	566583	9.3	9646003
High School Degree	29.6	32748617	31.3	2181437	29.4	30567180
Some College	30.1	33338649	32.6	2276500	29.9	31062149
Bachelor of Arts Degree	31.2	34525845	28	1951148	31.4	32574697
Race						
Black	11.5	12749094	2.1	146532	12.1	12602562
Hispanic	5.4	5934031	0.9	59536	5.7	5874495
White	80.7	89468533	95.8	6682268	79.7	82786265
Other	2.4	2674040	1.3	87333	2.5	2586707
Annual Family Income						
0 to 20K	14.6	13882223	12.9	799826	14.7	13082397
20 to 40K	24.9	23716621	25	1553899	24.9	22162722
40 to 60K	20.6	19582038	22.5	1399112	20.4	18182926
60K or more	40	38085133	39.5	2453585	40	35631548
Length of Time at Address						
0 to 6 Months	6.9	7597408	7.5	524057	6.8	7073351
More than 6 Months	93.1	103228289	92.5	6451612	93.2	96776677
Married	64.9	71867073	68.9	4806613	64.6	67060459
Not Married	35.2	38958624	31.1	2169055	35.4	36789569
Native born	94	104125247	98.2	6851297	93.7	97273950
Not native born	6.1	6700450	1.8	124371	6.3	6576079

Table 3
Voter Registration
2000 Random Effects Logit Results

Variable	Coefficient	Significance	Standard Error
Age			
18 to 25	-1.79	**	0.08
26 to 35	-1.7	**	0.08
36 to 45	-1.33	**	0.08
46 to 60	-0.95	**	0.07
61 to 75	-0.15	*	0.08
Education			
Some Grade or High School	-2.12	**	0.06
High School Degree	-1.41	**	0.05
Some College	-0.74	**	0.05
Race			
Black	0.95	**	0.08
Hispanic	0.47	**	0.09
White	0.59	**	0.07
Married	0.45	**	0.03
Male	-0.19	**	0.03
Annual Family Income			
0 to 20K	-0.74	**	0.05
20 to 40K	-0.55	**	0.04
40 to 60K	-0.34	**	0.05
Length of Time at Address			
0 to 6 Months	-0.43	**	0.05
Native born	0.53	**	0.08
State Variables			
Registration Deadline	0		0
EDR	0.88	**	0.31
Election Closeness			
Gubernatorial Race	-0.27	**	0.06
Senate Race	0.22	**	0.06
Presidential Race	-0.13	**	0.04
EDR Interactions			
EDR*Age			
18 to 25	-0.11		0.15
26 to 35	-0.12		0.15
36 to 45	0.02		0.15
46 to 60	0.01		0.15
EDR*Education			
Some Grade or High School	-0.17		0.13
High School Degree	-0.16	*	0.09
EDR*Annual Family Income			
0 to 20K	-0.16		0.12
20 to 40K	-0.01		0.1
EDR*Native born	-0.31		0.27
EDR*0 to 6 Months	-0.02		0.12
Constant	2.82	**	0.13
ln(sd)	-1.9		0.14
sd	0.39		0.03

rho	0.13	0.02
Observations	62,816	
Groups	50	
Log Likelihood	-22691.829	

Table 4
Voter Turnout
2000 Random Effects Logit Results

Variable	Coefficient	Significance	Standard Error
Age			
18 to 25	-1.68	**	0.07
26 to 35	-1.52	**	0.06
36 to 45	-1.11	**	0.06
46 to 60	-0.71	**	0.06
61 to 75	0.09		0.06
Education			
Some Grade or High School	-2.11	**	0.05
High School Degree	-1.38	**	0.04
Some College	-0.75	**	0.04
Race			
Black	1.06	**	0.08
Hispanic	0.47	**	0.09
White	0.67	**	0.07
Married	0.41	**	0.03
Male	-0.18	**	0.03
Annual Family Income			
0 to 20K	-0.84	**	0.05
20 to 40K	-0.51	**	0.04
40 to 60K	-0.27	**	0.04
Length of Time at Address			
0 to 6 Months	-0.51	**	0.04
Native born	0.37	**	0.07
State Variables			
Voter Registration	-0.43	**	0.09
Registration Deadline	0		0
EDR	0.73	**	0.28
Election Closeness			
Gubernatorial Race	0		0.05
Senate Race	0.19	**	0.04
Presidential Race	-0.07	*	0.04
EDR Interactions			
EDR*Age			
18 to 25	0.15		0.13
26 to 35	0.04		0.13
36 to 45	0.01		0.13
46 to 60	0.04		0.12
EDR*Education			
Some Grade or High School	-0.01		0.12
High School Degree	-0.07		0.08
EDR*Annual Family Income			
0 to 20K	-0.22	**	0.1
20 to 40K	-0.09		0.08
EDR*Native born	-0.24		0.25
EDR*0 to 6 Months	0.03		0.11
Constant	2.26	**	0.14
ln(sd)	-2.17		0.12

sd	0.34	0.02
rho	0.1	0.01
Observations	64,183	
Groups	51	
Log Likelihood	-26456.129	

Table 5
2000 Counterfactual Simulation
Voter Registration in Non-EDR States

Variable	Status Quo Percent of Sample	Under EDR Percent of Sample	Difference	Eligible Voters	Registration Increase
Overall	76	81.7	5.7	176142256	10040108.59
Age					
18 to 25	58.6	65.6	7	25469326	1782852.82
26 to 35	69.6	75.8	6.2	31287066	1939798.09
36 to 45	77.4	84	6.6	38186284	2520294.74
46 to 60	83.1	88.1	5	43462000	2173100.00
61 to 75	87.1	90.7	3.6	25388726	913994.14
76 to 90	85.9	89.5	3.6	12349755	444591.18
Education					
Some Grade or High School	53.5	61.3	7.8	25454011	1985412.86
High School Degree	71.1	77	5.9	58791573	3468702.81
Some College	81.3	87.3	6	49638881	2978332.86
Bachelor of Arts Degree	91.4	94.7	3.3	42257792	1394507.14
Race					
Black	76.4	81.3	4.9	22154504	1085570.70
Hispanic	56.2	65.8	9.6	13000606	1248058.18
White	80.1	84.9	4.8	135102492	6484919.62
Other	63	73.4	10.4	5884654	612004.02
Annual Family Income					
0 to 20K	62.8	68.3	5.5	28591002	1572505.11
20 to 40K	71	78.2	7.2	39008995	2808647.64
40 to 60K	78.9	84.8	5.9	28453869	1678778.27
60K or more	87	91.2	4.2	49388950	2074335.90
Length of Time at Address					
0 to 6 Months	60.1	67.1	7	16379270	1146548.90
6 Months Plus	78	83.4	5.4	159762986	8627201.24
Married	81.8	86.9	5.1	100296504	5115121.70
Not married	68.2	74.6	6.4	75845752	4854128.13
Native born	78.9	83.5	4.6	163040153	7499847.04
Not native born	59.9	71.3	11.4	13102104	1493639.86

Table 6
2000 Counterfactual Simulation
Voter Turnout In Non-EDR States

Variable	Status Quo Percent of Sample	Under EDR Percent of Sample	Difference	Eligible Voters	Turnout Increase
Overall	62.7	70.8	8.1	176142256	14267522.74
Age					
18 to 25	40.1	52	11.9	25469326	3030849.79
26 to 35	54.4	63.7	9.3	31287066	2909697.14
36 to 45	64.6	72.5	7.9	38186284	3016716.44
46 to 60	72.5	79.4	6.9	43462000	2998878.00
61 to 75	77.5	82.5	5	25388726	1269436.30
76 to 90	71.2	76.8	5.6	12349755	691586.28
Education					
Some Grade or High School	36.6	45.8	9.2	25454011	2341769.01
High School Degree	55.7	64	8.3	58791573	4879700.56
Some College	67.6	76.7	9.1	49638881	4517138.17
Bachelor of Arts Degree	83.7	89.4	5.7	42257792	2408694.14
Race					
Black	62.6	70.1	7.5	22154504	1661587.80
Hispanic	40.1	50.9	10.8	13000606	1404065.45
White	67.4	74.8	7.4	135102492	9997584.41
Other	47.6	59.6	12	5884654	706158.48
Annual Family Income					
0 to 20K	44.7	51.4	6.7	28591002	1915597.13
20 to 40K	56.8	65.7	8.9	39008995	3471800.56
40 to 60K	66.6	75.9	9.3	28453869	2646209.82
60K or more	76.8	84.2	7.4	49388950	3654782.30
Length of Time at Address					
0 to 6 Months	42.8	52.8	10	16379270	1637927.00
6 Months Plus	65.1	72.9	7.8	159762986	12461512.91
Married	70.3	77.6	7.3	100296504	7321644.79
Not married	52.4	61.4	9	75845752	6826117.68
Native born	65.6	72.9	7.3	163040153	11901931.17
Not native born	46.3	58.6	12.3	13102104	1611558.79