

The Psychological and Institutional Determinants of Early Voting

Paul Gronke* and Daniel Krantz Toffey

Reed College

This article examines early voting, an institutional innovation whereby citizens can cast their ballots a time and location other than on election day and at the precinct place. Early voting has been proposed as way to expand the franchise, by making voting more convenient, and extend the franchise, by encouraging turnout among those segments of the population who are unable or unwilling to vote using traditional methods. The article draws on models of voter decision making that conceptualize voting as a choice reached under uncertainty. Voters vary by (a) their willingness to accept uncertainty, (b) their cognitive engagement with the campaign, and (c) their location in an institutional environment that makes early voting possible. We propose a multivariate model of early voting, contingent on a voter's prior levels of political information, level of fixed political beliefs, and political information activity. These are also interacted with the institutional context (laws and procedures that allow early voting). At the descriptive level, we find most of the expected demographic and attitudinal patterns: early voters are older, better educated, and more cognitively engaged in the campaign and in politics. Because national surveys are ill equipped to capture nuanced campaign dynamics, many of the statistically significant relationships disappear in multivariate analyses. Regardless, revealing differences emerge between midterm and presidential election years that allow us to make important inferences about the demographic and participatory characteristics of early voters.

Following the 2000 presidential election, issues of election administration came to the forefront. Prior to the election, scant attention had been paid to the

*Correspondence concerning this article should be addressed to Paul Gronke, 3203 SE Woodstock Blvd, Portland, OR 97202 [e-mail: paul.gronke@reed.edu].

We would like to thank the Michael Levine Foundation and the Dean's Summer Fund at Reed College for partial support of this research. We thank Jack Glaser, Kevin Lanning, Eva Galanes-Rosenbaum, Peter Miller, and Caroline Tolbert for comments on earlier versions of this research. Earlier versions of this article were presented at the 2007 Annual Meetings of the American Psychological Association and the American Political Science Association.

integrity of the electoral process. It was, for the most part, taken for granted that everyone's vote would be counted, because there was little to suggest otherwise. It should not be surprising that the 2000 election that shook the very foundation of America's representative democracy had such a profound impact. Like most high-profile scandals, the 2000 Florida recount prompted a wave of election reform across the United States.

Among the various reforms that were increasingly adopted after the 2000 election was early voting. Calls to increase participation, ensure ballot integrity, and create a baseline of continuity prompted 12 states to adopt more liberalized early voting laws, bringing to 37 states (as of this writing) offering some form of early voting.¹

Early voting, for our purposes, is any one of a number of different procedures that allow individuals to cast their ballot before election day. The two primary methods by which early voting is offered are no-excuse absentee ballots and in-person early voting, where voting locations open prior to election day. These new balloting methods have become increasingly attractive. Election officials like early voting because it reduces the election-day burden on precincts, thereby lowering administrative costs,² while improving ballot processing, and potentially decreasing the chances of voter disenfranchisement. In addition, paper absentee ballots are perceived by many as increasing the integrity of the voting process, essentially restoring the public's faith in a system where electronic voting machines and other new technology had cast doubt, although empirical evidence on this question is decidedly mixed (Alvarez et al., 2008). Many early voting advocates also conjectured that by lowering the barriers to participation—most notably the costs and inconvenience associated with voting on election day—turnout would increase, and the democratic process would be strengthened. Though both forms of early voting require different types of participation, it is generally argued that they do so by lowering the costs of voting, early in-person voting by providing flexibility with respect to timing, and no-excuse absentee balloting by removing the need to go to a polling center altogether.

If ballot integrity and participation are supposed to be improved via early voting, these reforms have a number of unintended consequences for both candidates and voters. Candidates are affected because the usual spending blitz reserved for the final week of an election must now be sustained over the course of the early voting period. Presidential hopefuls in 2008, for instance, have had to focus on 8

¹The list of early voting states and the various reforms can be found at <http://electionline.org>.

²The state of Oregon claims 30% cost savings after adopting vote by mail Bradbury, 2005. Vote by mail: the real winner in democracy. *Washington Post*:23, but we have been unable to find any documentation for this claim. See also Kuttner (2006). Going postal. With vote by mail, Oregon has higher voter turnout and spends less money running elections. *The American Prospect* and Hamilton (2006). The Oregon Voting Revolution: How a Vote By Mail Experiment Transformed the Democratic Process. *The American Prospect*.

or 10 states with early voting instead of the usual big three: Iowa, New Hampshire, and South Carolina. Campaigns are also presented with opportunities to mobilize: reliable voters can be mobilized to cast their ballots early, allowing campaigns to target swing voters with their remaining resources. Voters are presented with the opportunity to mull over their electoral decisions for longer periods, and, as discussed above, the cost of participation has supposedly been lowered. However, by allowing flexibility in when a voter casts their ballot, early voting virtually assures that balloting is no longer “simultaneous,” raising normative concerns about equity (see Thompson, this volume).

But to what extent does early voting reform actually affect campaigns and voters? In order to understand the strength of early voting’s impact, it is important to know whom exactly it influences. This article aims at answering the question: “Who votes early?” In so doing, we hope to provide an account of “early voters” that will prove useful for future work exploring early voting’s effect on the democratic process.

Our approach in this article is to explore the individual-level determinants of early voting behavior. We examine the relative impact of individuals’ demographic attributes and institutional context on their tendency to vote early. We first explore the demographic and political differences between early and election-day voters. Because there is variation in early voting systems, we then analyze how those differences change when a control variable is added to test for the strictness or liberalness of early voting laws. We conclude by running probit regressions for each election that include demographic and institutional variables, as well as interaction variables. What results is a detailed picture of how individual attributes and institutional context interact to influence when an individual votes.

Theoretical Overview

For our theoretical guidance we draw on Michael Alvarez’s *Information and Elections* in order to help conceptualize early voting behavior. Alvarez frames voting as an exercise in uncertainty reduction. Voters have a threshold of uncertainty, below which they do not feel comfortable casting their ballot for a particular candidate (Alvarez, 1998; see also Page, 1978; Zaller, 1992). Once this threshold is overcome, however, the individual is confident enough in his or her choice to support a candidate and thus to vote. The theoretical advance—and challenge—in Alvarez’s approach is to develop a probabilistic model of uncertainty and choice. Rather than using the more elaborate Bayesian learning model that Alvarez deploys for this first cut at early voting, we take a much simpler path, modeling the probability that an individual will cast an early ballot based on a few core political beliefs, his or her level of political engagement, and whether he or she has been exposed to political mobilization efforts.

The first factor we consider is an individual's history and characteristics. Demographic characteristics and personal histories can drastically affect the level of political engagement, and thus the likelihood of overcoming a threshold of uncertainty. For instance, people develop political predispositions that exert influence on decision making in a number of ways. Prior feelings toward a particular candidate or party can act as a filter for incoming information that reinforces preexisting beliefs, while rejecting new information that is in conflict with those beliefs (Zaller, 1992). These predispositions may also affect the level of involvement an individual has in politics. There are certain demographic characteristics that have been found to influence political beliefs and dispositions. Education is a major factor. Rosenstone and Hansen (1993) found a positive relationship between an individual's level of education, and his or her knowledge about, and participation in, politics. This stems from a greater knowledge about, and concern for, national and world events, a greater likelihood of reading newspapers, and a greater store of preexisting knowledge to draw upon. Rosenstone and Hansen also found that individuals of higher economic and social classes were more engaged in and knowledgeable about politics. This is dependent in part upon an overall higher level of education, but also due to lower marginal costs of political participation, and a larger personal stake in the outcome of government action. As politics tends to remain in the consciousness of better educated and socially well-off individuals, their levels of uncertainty should be, on average, lower than less educated and lower status individuals.

Often related to—but sufficiently separate from—demographic characteristics are levels of partisanship and ideological positions. As mentioned previously, education and economic status can increase levels of political knowledge that in turn affect partisanship and ideology. Strong partisanship and ideological extremism can also develop independently of these demographic measures. Family upbringing, religion, strong vested interest in a single issue—these are only a few of the various difficult-to-measure factors that push people toward, or away from, a particular political party. Because the make-up of partisanship and ideology are so difficult to measure, they serve as an important index to gauge political predispositions. As such, they also are an indication of political uncertainty. It is likely that a “strong” Republican and “extremely” conservative survey respondent will vote for the Republican candidate, regardless of who it is. We can make this generalized assumption because these measures indicate that the respondent is relatively certain in his or her preferences.

Indeed, previous work has found that the level and strength of partisanship is the only statistically significant indicator of when a person decides which candidate he or she will support (Fournier et al., 2004). Essentially, this likelihood is not reliant on a high level of political information: a strongly partisan and ideological individual can overcome the uncertainty threshold simply by referring

to the cue provided by a candidate's party identification. Because of their impact on uncertainty—and thus decision making—partisanship and ideology are an important consideration in our analysis.

Demographics and partisanship spill over into other important determinants of uncertainty and decision making. These other factors are political information, campaign attention, and political activity. Previous work finds strong relationships between information levels and voter turnout, suggesting higher overall levels of political certainty (Lassen, 2005). Additional work finds that those who vote before election day have higher overall levels of campaign attentiveness and political motivation, also indicating low levels of political uncertainty (Karp & Banducci, 2001; Box-Steffensmeier & Kimball, 1999). With these findings in mind, a complete analysis of uncertainty and early voting must include measures for political knowledge and attention.

Individual characteristics are only one of the three primary factors that guide uncertainty and decision making. The next one that we consider is the role of institutional context. Individuals are embedded within a larger institutional and social context. We are very interested in what Edwin Amenta terms “institutional mediation,” ways that individual behaviors are affected because they are altered by, filtered through, and mediated by institutional politics (Amenta, 1998). In this case, we wish to know how individual behavior may be affected by the institutional context of the campaign. We are concerned with two particular aspects of institutional context: first, whether the election in question is during a presidential or midterm year, and second, the early voting laws of a respondent's state.

Our first consideration—presidential versus midterm elections—is relevant because of the significant and well-documented differences in turnout between the two. A wide body of research has shown that the hoopla of presidential elections typically draws a larger cross section of voters than do the lower key midterm elections. Thus, we can draw inferences about midterm election voters that we cannot about presidential election voters: they are more likely to be educated and politically engaged, regular voters, and often exhibit stronger partisanship and more extreme ideological beliefs. If midterm voters are already a highly motivated and self-selecting group, there is a chance that the relative difference between early and election-day voters is affected by the type of election we are considering.

The relevance of our second consideration—a state's early voting laws—is obvious, for even if an individual were to prefer voting early, he or she would not be able to do so if the law prevented it. But early voting laws have an effect greater than just the availability of a legal option to vote prior to the first Tuesday in November. Consider, for example, the difference in campaign environments between states that have liberal early voting laws, and states that restrict early

and absentee ballots to those who will be absent on election day. Under standard election-day balloting procedures, there is a final push in the closing days of the campaign to mobilize otherwise inattentive voters. Without this sudden jump in spending on advertising, campaign functions, and get-out-the-vote efforts, many people would remain uninterested in the race, uncertain about which candidate to support, and unlikely to vote.

The adoption of early voting extends this “final push” to several weeks before election day (Gronke, 2004). The onset of voting several weeks prior to election day triggers heightened media coverage, prolonged advertising campaigns, and overall raises awareness of, and excitement about, the campaign. This has a number of effects on both campaigns and voters. Campaigns seek to mobilize their loyal party members early so that they can expend more energy on crucial swing voters at the last minute. Early voting indicates reliable votes and assists campaigns in identifying which voters need to be targeted, and when. Voters are thus mobilized by campaigns at higher rates. In addition, active party members can vote early, providing the opportunity to become involved in parties’ get-out-the-vote efforts. Because the level and duration of political information affect voters’ levels of knowledge and uncertainty, and because these levels are also affected by direct mobilization from party members, institutional context is an important consideration in our analysis.

The third major factor that affects decision making and uncertainty is the campaigns themselves. Alvarez discusses candidates’ efforts to walk a fine line between explicit policy stands and intentional ambiguity. This is due in large part to the phenomenon of “projection,” whereby individuals project their own policy preferences on to a candidate that they prefer. Projection is only possible when a candidate’s expressed policy positions are both clear enough to support, to some extent, the voter’s projected position and vague enough not to contradict it (see also Page, 1978). The art of campaigning is to raise awareness of a candidate, to reduce uncertainty about that candidate to at least the extent that projection can occur, and to mobilize people to vote. To this extent, campaigns are responsible for controlling the flow of information, and, in many cases, framing the terms of debate. For this article, we are not going to focus attention on the campaign’s role in decision making. Using national data severely hinders our ability to control for campaign influence because these are not equipped to analyze the ebb and flow of campaigns (e.g., Kahn & Kenney, 1999; Toffey, 2007). This is especially so at the state level, where most campaign action occurs. Even so, the inclusion of a measure for mobilization, and for campaign attention, will allow us to draw some inferences about the role of campaigns in reducing uncertainty, and aiding individuals in making political decisions. Future work may consider the intensity of Senate campaigns or hard fought gubernatorial contests as an additional measure of campaign information flow and intensity (e.g., Gronke, 2000; Kahn & Kenney, 1999).

Data and Methods

The data for this article come from two national surveys: the American National Elections Study (NES)³ and the Cooperative Congressional Election Study (CCES).⁴

The most basic item necessary for this study is a measure of early voting behavior. Starting in 1998 (and with identical wording since), the NES has asked postelection respondents who reported voting “Did you vote on Election Day—that is, [Election Day] or did you vote sometime before this?” The CCES item, developed by one of the authors and adopted by the study directors, was slightly different. As in the NES, respondents were screened first to see if they had voted. If they reported that they had, they were asked:

Did you vote in person on Election Day at a precinct, in person before Election Day, or by mail (that is, absentee or vote by mail)

The CCES wording was intended to capture both the choice to cast a ballot before election day and also the mode by which the ballot was cast. These different modes are important in some research areas but are not considered in this article.

How well do these studies measure early voting? There is substantial evidence that respondents overreport voting, an effect attributed to the social desirability effect and a “bandwagon” effect (reporting voting—and reporting voting for the winner) (Gronke, 1992; McDonald, 2003; Wright, 1990). For instance, in the 2004 data, 78.5% of NES respondents indicated that they had voted compared to an estimated 55% of the voting age population.⁵ While the overreporting bias due to social desirability and bandwagon effects is a well-known feature of the survey items that ask about turnout and which candidates the respondent voted for, it is unknown at present whether there is any additional overreporting bias that infects the early voting item. At present, the best indicator we have is to compare

³The 2000 and 2004 National Election Studies are conducted by the Center for Political Studies at the University of Michigan, Ann Arbor, MI, and are disseminated by the Interuniversity Consortium for Political and Social Research. All responsibility for interpretations rest with the authors.

⁴The 2006 Cooperative Congressional Election Study (CCES) was a collaborative national congressional election survey of 38,443 Americans conducted over the Internet by Polimetrix during October and November of 2006. The survey had a pre/post design and was a cooperative venture of 39 universities and over 100 political scientists. CCES was completed on-line and fielded by the survey research firm, Polimetrix, Inc. located in Palo Alto, CA. Steve Ansolabehere (MIT) was the Principal Investigator of the project and Lynn Vavreck (UCLA) served as the Study Director. A design committee consisting of Steve Ansolabehere, Lynn Vavreck, Doug Rivers (Stanford), Don Kinder (Michigan), Bob Erikson (Columbia), Wendy Rahn (Minnesota), Liz Gerber (Michigan), Jeremy Pope (Brigham Young), and John Sides (George Washington) collaborated to write the first 40 questions of the survey, called the Common Content. All 38,443 respondents completed this part of the survey. Each CCES team then drafted its own unique content that followed the Common Content. Each team received 1,000 unique respondents who completed both the Common Content and the Team Module.

⁵Estimate from Michael McDonald, United States Election Project. URL: http://elections.gmu.edu/Voter_Turnout_2004.htm, accessed August 8, 2007.

the aggregate figures against external sources. Table 1 below compares with the best estimates from election returns the early and election-day voting rates from the NES, CCES, and the National Annenberg Election Survey, conducted by the Annenberg School at the University of Pennsylvania.⁶

Fortunately, the survey estimates are consistent with early voting rates from external sources. Both the NES and the CCES show an overall upward trend in early voting between 2000 and 2006, in addition to expected increases in each of the individual early voting methods, with the exception of lower reported early voting in 2002. There does not seem to be any evidence of an “earlier” voting bias, nor is there sufficient evidence to rule it out.

Methods

Individual-Level Analysis

We will begin our analysis at an exploratory level, examining differences in means between early and election-day voters for each of the variables, representing each of our theoretical approaches. Previous research has found that early voters are typically older, better educated, wealthier, and are more likely to be politically engaged (Gronke, 2004; Gronke, Bishin, Stevens, & Galanes Rosenbaum, 2005). Differences of means will allow us to easily test these previous findings, which we expect to substantiate.

Institutional Level

After analyzing differences between early and election-day voters, we separate respondents into two categories: those living in states with strict early voting laws, and those living in states with liberal early voting laws.⁷ Doing so will begin to reveal the impact of institutional context. Regardless of the individual determinants of early voting, citizens may not be able to take advantage of this option if the law does not allow them to do so. In the section analysis, we compare respondents who

⁶All early voting rates were collected by the Early Voting Information Center (<http://earlyvoting.net>) and the authors, using sources such as certified state and county election returns and responses to the 2004 Election Day Survey and the 2006 Election Administration and Election Day Survey, both administered by the Election Assistance Commission. The early voting figures for the NAES were taken from Kenski (2005).

⁷This distinction, described in more detail below, is not completely arbitrary—it is based primarily on the historical pattern by which states relaxed their absentee balloting laws. The first step, taken by many states at this juncture, is to move to no-excuse absentee balloting. Studies of the legal and administrative case histories indicate that this is a relatively easy move, while the move to in-person early voting, permanent absentee balloting, or fully vote by mail evoke much more debate and discussion. The legal and administrative history, as well as a description of what states fall into these categories over time, are reported in Gronke and Galanes-Rosenbaum (2008) and Gronke, Galanes Rosenbaum, and Miller (2007).

report voting early under a restrictive system with those who vote early under more accessible systems. We hypothesize that under restrictive laws, early voting will be limited primarily to those for whom absentee balloting was originally intended. This group includes the elderly and incapacitated, those who travel often, and those serving overseas. Because this group is not significantly different than the rest of the electorate across demographic and political measures, we expect there to be little difference between early and election-day voters under restrictive early voting systems.

We hypothesize that liberalized and easily accessible systems, on the other hand, will draw in politically aware—and thus more educated, wealthy, and older—voters. The costs associated with taking advantage of early voting schemes will be enough to limit participation among the wider electorate but will encourage politically active, aware, and decisive voters to cast early ballots. For this reason, we expect to see statistically significant differences across most demographic and political measures for those respondents living under loosened early voting laws. We expect that more liberalized early voting increases, rather than decreases, differences among early and election-day voters (Berinsky, 2005; Berinsky et al., 2001).

In terms of election type, we expect that midterm voters are self-selecting, and that as a result, the differences between early and election-day voters, overall, will be smaller for those years than the differences between early and election-day voters during presidential election years.

Multivariate Analysis

In the final set of analyses, we consider these explanations in a multivariate context. Our overall model of early voting includes:

- Demographic indicators (education, income, and age)
- A set of attitudinal items, including partisan and ideological strength, meant to reflect risk acceptance (more politically extreme individuals will be more confident with their choice even if they are less certain about the specific policy positions of the competing candidates); campaign attention; political information; and reported level of political activity, all meant to reflect exposure to and cognitive engagement with the campaign, and; the time of the voting decision.
- The legal context—a dummy variable representing the ease of early voting in the state.
- A set of interaction terms, consisting of the ease-of-voting dummy variable multiplied by the individual attitudinal measures.

All models were estimated using ordinary least squares in Stata. Information on specific variables used and coding can be obtained from the authors.

Table 1. Early Voting Rates: Surveys and Election Returns

Year	Source	Election-Day		Early Voters		Cases
		Voters	Total	In-Person	By Mail ^a	
2000 ^b	NES	84.6%	15.4%	5.2%	10.2%	1182
	NAES	86.0%	14.0%	—	—	4575
2002	NES	85.4%	14.6%	3.8%	10.8%	944
2004	NES	77.7%	22.3%	7.4%	14.9%	837
	NAES	80.0%	20.0%	—	—	2358
2006	Election returns	80.3%	19.7%	—	—	—
	CCES	68.9%	30.4%	11.7%	18.7%	27589
	Election returns	75.0%	25.0%	—	—	—

^aComposite of Absentee and Vote by mail in Oregon.

^bThere are no reliable election return data for early voting in 2000 and 2002.

Sources. NES: American National Elections Study, University of Michigan, 2000 and 2004;

NAES: Kenski, 2005;

CCES: Cooperative Congressional Election Study, 2006;

Election returns: Early Voting Information Center at Reed College.

Individual-Level Determinants

First, we turn to the descriptive analyses, to see if there is any initial support for our primary hypotheses. In terms of the demographic patterns from previous work, it is interesting to note that the difference between early and election-day voters has been increasing over time, concordant with the increasing availability of early voting options. As shown in the first three rows of Table 2, there is no statistically significant difference between early and election-day voters in terms of education or income in 2000 and 2002, while these differences were in the expected direction and were statistically significant in the 2004 NES and, to some extent, the 2006 CCES. In both cases, early voters were better educated and had a higher average income. In all four studies, early voters were older, by 3 to 4 years, than were day-of-election voters.

We hypothesized that voters with more firmly held political beliefs would be more likely to vote early, but the survey data provide no support for this hypothesis. On the other hand, we find more support for the expected relationship between early voting and cognitive engagement with politics in general and with the current campaign: of the 13 relationships that we are able to test, all with the exception of two are in the hypothesized direction and seven are statistically significant at the .05 level (with one additionally significant at the .10 level).

We tested two final relationships: the respondent's self-reported time of decision and whether the respondent reported being contacted by a political party ("mobilization"). Both were strongly and consistently related to the tendency to vote early, with the unusual exception of 2002. Those who reported being contacted were, on average, 20% more likely to say they voted early (NES); the differences in the CCES were much more modest but were similarly statistically significant. Not surprisingly, we also found that those respondents who reported

Table 2. Early Voters versus Election-Day Voters (Mean Differences)

	2000 NES			2002 NES			2004 NES			2006 CCEES		
	Early	Day	t	Early	Day	t	Early	Day	t	Early	Day	t
Demographics												
Education	.602	.603	-.007	.634	.622	.50	.631*	.582*	2.24	.501*	.477*	6.68
Income (household)	.302	.298	.26	.533	.579	-1.42	.700*	.656*	1.97	.534	.532	.53
Age	51.7*	48.9*	2.05	55.8*	52.0*	2.71	51.6*	47.8*	2.73	53.5*	49.3*	21.11
Political attitudes												
Partisan strength	.646	.651	-.02	.660	.673	-.50	.686	.659	1.04	.647	.644	.66
Ideological strength	.510	.512	-.09	.392	.395	-.12	.403	.401	.09	.390*	.379*	2.33
Political info. 1	.748	.735	.51	.733	.735	-.14	.801*	.730*	2.94			
Political info. 2	.597	.580	.75				.738*	.661*	3.20			
Campaign attention	.798	.767	1.29	.691	.656	1.25	.751*	.695*	2.72	.872*	.821*	11.94
Political activity	.325*	.292*	2.14	.763	.768	-.24	.397*	.324*	4.14	.535*	.461*	15.00
Time of decision	.371*	.426*	-2.05				.266*	.318*	-1.93			
Mobilization												
Contacted by party?	.533	.444*	2.22	.641	.621	.45	.613	.496*	2.82	.813*	.782*	5.55

Source. American National Elections Study, University of Michigan, 2000, 2002, and 2004; Cooperative Congressional Election Study, 2006.

* p > .05.

that they reached their decision later reported voting later (any other finding would have been rather discouraging).

Though the results are far from definitive, we also begin to see support for our hypothesis regarding the type of election. The 2000 and 2004 data show the strongest differences between early and election-day voters. Four of 2000's variables, and all but two of 2004's, are statistically significant. In contrast, only one variable in the 2002 analysis is significant. The 2006 data did show statistically significant differences across many of the variables, but that analysis has a number of mitigating factors: its extremely large sample size (>14,000 observations), and somewhat smaller magnitudes of difference.

In summary, our initial exploratory findings support three of our four hypotheses. We replicated previous work that found early voters were older and better educated than day-of-election voters. We found that early voters were better informed and were more cognitively engaged in the campaign. We did not find that early voters were more ideologically extreme or held stronger partisan affiliations. We also found opaque indications that the type of election affects the relative demographic and political difference between early and election-day voters.

The Impact of the Legal Context

Early voting is not just an individual choice; it is also a characteristic of the electoral system. Much as an individual may wish to vote early, if the option is not available or is difficult, an individual cannot exercise that choice. And while many proponents of early voting reforms argue that it will expand the electorate, extant research indicates quite the opposite, that many voting reforms instead exacerbate preexisting socioeconomic biases in the American election system (Berinsky, 2005; Berinsky et al., 2001). Do early voting reforms display a similar effect?

We initially test for institutional differences by repeating Table 2, but this time comparing across strict and relaxed early-voting regimes. In Table 3, we present these results. We have coded voting laws into five categories, 1 = conventional absentee balloting, 2 = no-excuse absentee balloting, 3 = no-excuse + permanent absentee option, 4 = in-person early voting, 5 = voting by mail. For the purposes of this comparison, we have grouped categories 1 and 2 together and compared them to categories 3–5. Rather than clutter the table with the actual means, we report only the difference in means in Table 3 and indicated any entry that passes the 95% level of statistical significance.⁸

⁸In order to not prejudge these analyses, we have also reestimated these models using four separate dummy variables representing each legal regime, which does not assume any sort of order to the underlying regimes. We eliminated Oregon, as it is the only state with a fully vote by mail system. We found no significant improvement in fit in this model, as measured by an *F* test comparing the two

Table 3. Difference between Early and Election-Day Voters, Across Early Voting Schemes

Absentee Codes	2000		2002		2004		2006	
	1-2 Strict	3-5 Liberal	1-2 Strict	3-5 Liberal	1-2 Strict	3-5 Liberal	1-2 Strict	3-5 Liberal
Education	-.072*	.051	.037	.019	-.023	.075*	.030*	.025*
Income	-.032	.052*	-.084	-.036	-.105*	.114*	.001	.005
Age	4.7*	2.5	8.3*	3.6	6.0*	6.8*	2.1*	4.9*
Partisan strength	.000	.013	.007	-.009	-.023	.042	.005	.008
Ideological strength	-.041	.030	.049	-.027	-.062	.031	.009	.007
Political info. 1	-.030	.024	.021	-.005	.036	.116*		
Political info. 2	-.030	.038			.069	.124*		
Campaign attention	-.029	.110*	.131*	-.004	-.009	.062*	.071*	.047*
Political activity	-.001	.056*	-.004	-.008	.027	.110*	.096*	.069*
Time of decision	-.058	-.056			-.076	-.081*		
Mobilization	-.002	.184*	-.023	.092	.086	.165*	-.006	.041*

Sources. 2000, 2002, and 2004 National Election Study; 2006 Cooperative Congressional Election Study.

*p < .05.

Looking across the whole table, one important finding stands out: differences between early and election-day voters increase as early voting is made more available. Comparing the results from the 2000 and 2004 NES is illustrative. For 2000, most of the differences in strict early voting states are insignificant and often run opposite to what we hypothesize, whereas in more liberal states, every difference is correctly signed and 4 of the 11 pass conventional statistical significance levels. The effects are even more striking in 2004, where once again the differences under strict laws are opposite from our predictions for education, income, partisan strength, and ideological strength. Among states with more liberal early voting laws, all differences are in the predicted direction, and all but two (partisan and ideological strength) are statistically significant.

What is interesting to note, however, is that the midterm elections of 2002 and 2006 often counter the results from 2000 and 2004. In fact, both midterm surveys are remarkably consistent in that the difference between early voters and election-day voters was greater under strict voting laws. These results seem to suggest that voters who go out of their way to vote early during midterm years have more in common with their day of election voting counterparts than they do during presidential years, consistent with our hypothesis. The larger differences witnessed under strict regimes in midterm years might be caused by the greater level of knowledge and engagement necessary to take advantage of those states' more stringent voting requirements. Were this to be the case, these states would

models. Most of the effect was captured by the dichotomy that we present here. For this reason, we opted to report the results using the dichotomous measure. The full model is available upon request from the authors.

essentially have an additional level of voter stratification that only becomes apparent during midterm elections.

It is apparent from this table that providing an avenue for early voting via legal changes encourages early voting only among a distinct segment of the population—more educated, higher income, older voters, and voters who are more attuned to politics and to the campaign. Furthermore, political parties, candidates, and political organizations take advantage of these legal voting provisions and mobilize voters to cast their ballots early (Stein, Leighly, & Owens, 2004). But it is also apparent that the relative difference between early and election day voters is heavily influenced by the attention and status of the race in question.

Multivariate Results

In the next set of analyses, we subject our hypotheses to a multivariate test. Because the dependent variable is a dichotomy (0 = voted on election day, 1 = voted other than on election day), the models are all estimated using probit. Our models include each of the variables in the previous tables, along with a battery of interaction variables to test for relationships between early voting laws and other variables. Our analyses are presented in Table 4, and to highlight key findings, we've grouped midterm and presidential election years together.⁹

The results from 2000—when early voting was still relatively novel and only 11 states had liberalized voting provisions beyond no-excuse absentee balloting—reveal few statistically significant relationships. Both education and income are in the opposite direction from what we would have expected, though neither is statistically significant. Age is in the expected direction, but the effect is small and insignificant. Surprisingly, the strength of an individual's ideology has a negative impact on the likelihood of that person voting early, significant to 90%. All other measures of political attitudes and engagement are insignificant. Unsurprisingly, the timing of a respondent's decision is related to his or her voting early. Neither the mobilization, nor the ease of early voting laws, had a significant impact on a respondent's tendency to vote early; the direction of the mobilization variable runs opposite to our expectation. We do find interesting results among the interaction variables. We discover a strong effect of education on the probability of early voting, but only in those states that have liberalized early voting. Among nonliberalized states, the relationship is actually negative (although nonsignificant). A similar result is found for campaign attention: citizens who are paying attention

⁹Probit is the appropriate estimation technique for a dichotomous dependent variable and is based on the cumulative normal distribution. Unlike linear regression, probit coefficients cannot be translated into estimated effects by simply multiplying the coefficient by an independent variable. However, for any variables that have the same scale (e.g., 0–1), you can compare the relative size of a probit coefficient in order to assess the relative strength of an effect.

Table 4. Early Voting, 2000–2006

		Presidential		Mid-Term	
		2000	2004	2002	2006
		NES	NES	NES	CCES
Demographics	Constant	-1.119	-1.852	-2.811	-1.980
		.040	.012	.000	.000
	Education	-.239	-.736	.523	.248*
		.506	.128	.179	.003
	Income (household)	-.008	.020	-.289	-.110*
Age		.981	.946	.116	.037
		.004	.002	.017*	.007*
		.472	.790	.010	.000
Political attitudes	Ideological strength	-.442*	-.083	-.033	-.009
		.062	.713	.858	.798
	Partisan: strong	.268	-.057	-.067	-.031
		.479	.878	.635	.489
	Partisan: weak	.264	-.049	-.155	-.031
		.484	.893	.285	.493
	Partisan: lean	.446	.014	-.002	-.020
		.231	.969	.991	.659
	Political info.	.066	1.319*	-.194	
		.850	.026	.673	
	Campaign attention	-.260	-.596	.554	.307*
	.433	.264	.123	.003	
Political activity	.281	.065	.082	.285*	
	.534	.912	.860	.000	
Time of decision	-.608*	-.192			
	.032	.646			
Mobilization	Contacted by party?	-.096	.311	-.145	-.061
		.579	.206	.469	.290
Legal context	Ease of EV	-1.057	.451	2.327*	.781*
		.117	.553	.005	.000
Interaction variables	E V × Education	1.235*	1.218*	-.397	.037
		.028	.036	.409	.707
	EV × Age	.000	.009	-.013	.006*
		.974	.308	.129	.001
	EV × Pol. info.	-.326	-1.008	-.041	
		.565	.139	.944	
	EV × Campaign attn	1.233*	.545	-.777*	-.111
		.030	.398	.082	.342
	E V × Pol activity	-.208	.571	.018	-.072
		.770	.414	.975	.352
E V × Mobilization	.340	-.092	.309	.092	
	.202	.756	.217	.116	
EV × Time of dec.	.466	-.107			
	.267	.824			
Pseudo-R ² :	.12	.23	.14	.13	
Observations:	699	600	858	14419	

*p < .05.

to the campaign are more likely to choose to vote early, but only if in contexts where the option is widely available. Overall, the explained variance in the model is quite low (12%), indicating that we have not yet captured many of the elements that discriminate between early and day of election voters.

The results for the 2004 NES are more encouraging. The model explains substantially more variance than the model from 2000. Even so, there are again few statistically significant variables that emerge. Education is again in the wrong direction, and this time to a greater degree. Income and education are in the right direction, though still insignificant. Ideological strength falls well below statistical significance, along with the three levels of partisanship. This time, political information is positively correlated with early voting, perhaps due to early voting's wider adoption. Campaign attention is in the opposite direction, and political activity is insignificant. Interestingly, the time of a respondent's decision drops below the significance threshold, though the direction of the variable is still correct. The ease of availability to early voting is correctly signed, but still far from significant. The interaction variables still reveal a significant relationship between early voting laws, education, and a respondent's likelihood of voting early. These relationships are robust under various specifications, for example, run without the interaction term. The campaign attention interaction variable drops below significance in 2004, but the sign is still correct. In sum, more citizens vote early when these balloting methods are made available, but otherwise there is little to discriminate between early and day-of-election voters. While this finding runs contrary to previous work (Gronke, Galanes-Rosenbaum, & Miller, 2007; Stein et al., 2004; Owens et al., 2005; Stein and García-Monet, 1997), it is encouraging to those advocates who promote early voting as a method to increase turnout without compositional or partisan effects.

We now move on to the midterm elections. The midterm results are quite different from both presidential election years and are more supportive of our theoretical expectations. Education is positively signed, and though it is not significant, the substantive impact of the estimated effect is large. Age exceeds significance and is positively related to early voting. Partisan and ideological measures are still negatively signed, but campaign attention has flipped to a positive sign and is approaching significance. Political activity still shows no effect, nor does mobilization. We finally see a significant and correctly signed relationship between the ease of access to early voting and a respondent's likelihood of doing so. It is the variable with the strongest predictive effect in the model. The relationship between education and early voting laws not only disappears but also reverses in direction. The only interaction effect with statistical significance is campaign attention, and its sign has flipped such that it is now negatively correlated with early voting.

Finally, we turn to our analysis of the 2006 CCES. Given the substantially higher case count in the CCES, it is much easier to meet statistical significance

levels, so we are reticent to read too much into the higher number of significant relationships. Instead, we want to focus on the substantive interpretation of the results, which align generally with the results from the 2002 NES, and provide further contrast with both presidential elections. First, as expected, better educated and older respondents are more likely to report that they cast an early ballot. Income remains negatively signed and statistically significant, as it was in 2002. Partisan and ideological variables remain negatively signed and insignificant, providing strong evidence that partisanship and ideology have little effect on early voting. Unlike in the NES, we retain strong and consistent effects of cognitive engagement, but the measure for campaign attention is positively signed, as it is in 2002. Mobilization is still incorrectly signed and insignificant, but, as in 2002, the ease of early voting laws is positively and significantly related to a respondent's decision to vote early. The interaction variables from 2006 are somewhat consistent with 2002: education has fallen below the threshold of significance, and campaign attention remains negatively signed. The age interaction variable is significant, but the overall effect is small.

The most noteworthy finding in Table 4 is the significant impact that kind of election has on the relative difference between early and election-day voters. With six of the variables, there exist vast differences between their role in midterm and presidential voting years. Education's sign flips from a negative effect during presidential years to a positive effect during the midterms. Income flips from an insignificant and slightly positive effect during presidential years to a strongly negative effect during midterm years. Campaign attention only has a positive impact during midterm elections, and if it has any effect at all during presidential elections, it is negatively correlated with early voting. Interaction variables seem have the strongest effect during presidential years, especially for education and campaign attention, while our analysis suggests campaign attention may be negatively correlated to early voting during midterms.

Though the sign flips between midterm and presidential years for many of the variables we are interested in, one variable with a strikingly consistent effect is age. Not only does age remain positively correlated with early voting, but also its effect can be fairly substantial. An 18-year-old respondent living in a restrictive early voting state has only a 3% probability of voting early, while a 60-year-old neighbor is twice as likely to vote early. But what of the legal context? That same 18-year-old is predicted to have a 14% chance of voting early in states with liberal early voting laws, while the 60-year-old has a 22% chance of voting early. The interactive relationship between age, institutions, and early voting is presented in Figure 1, which plots the 95% confidence interval about the predicted probability of early voting across the observed age range in the survey (18–95).¹⁰ Visual

¹⁰The predicted probabilities in this table, as well as the figure, we produced with the Clarify add on to Stata (King, Tomz, & Wittenberg, 2000).

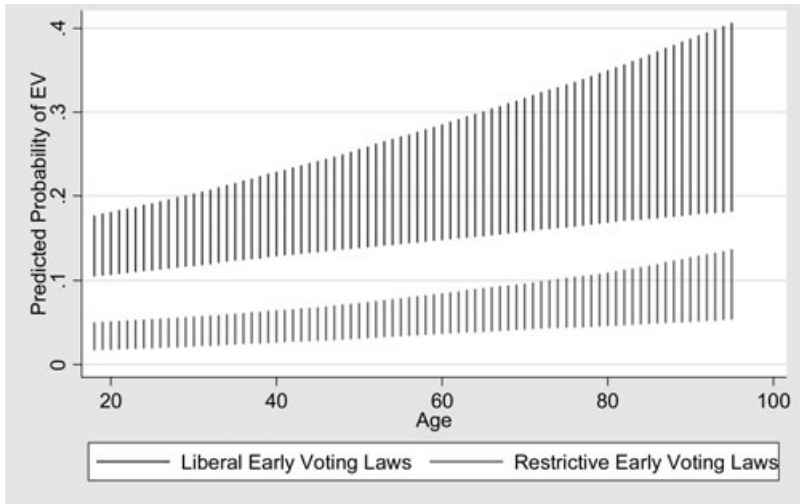


Fig. 1. Age and probability of early voting 2006 CCES.

inspection of the figure reinforces the point made here about the predominant effect of the institutional context. Age matters, to be sure, but the legal context matters even more. This is the pattern that remains across most of the individual determinants. In the context of a national survey, it is the legal context and not the individual's predispositions that determine whether more citizens vote early or not.

Conclusion

We began this article by laying out a set of expectations about the individual-level and institutional-level determinants of early voting. In so doing, we relied on well-established models of campaigns and elections that conceptualize voting as an act engaged in under conditions of uncertainty. We also drew upon substantial research that has established a set of correlates of early voting. When using individual-level voter history files (Gronke, 2004) or sample surveys conducted at the local level (Gronke et al., 2005), the results are consistent: early voters are older, better educated, are more likely to declare a partisan affiliation on the voter registration form, and tend to be exposed to party mobilization efforts.

This current work advances beyond previous work in three ways. First, this is the first work that explicitly considers the individual determinants of early voting, in an attempt to bring early voting behavior under the umbrella of larger theories of campaigns, elections, and electoral behavior. Second, except for a brief report

(Kenski, 2005), this is the only work that examines early voting using national surveys.¹¹ Third, we advance and expand the concept of institutional context to incorporate both the legal options available to a voter, and the type of election that a survey respondent may be voting in.

The bivariate relationships aligned with our theoretical expectations. Early voters in the 2002 NES, 2004 NES, and 2006 CCES were older, better educated, and, to some extent, showed higher levels of political knowledge and activity. On the whole, they also showed higher rates of mobilization. They did not display higher income levels, or more extreme partisan and ideological sentiments. Not surprisingly, we also found that citizens who live in states with more relaxed early voting laws were more likely to vote early. The question remained whether the reforms exacerbated existing inequalities in the system—for example, were early voters even more educated, wealthier, and more politically aware than election-day voters, who are themselves in a higher socioeconomic category than nonvoters—or are early voters and day-of-election voters two pieces cut from the same cloth.

The multivariate analysis initially seems to support the first notion. Other than voting early, there were few measures that distinguished early and election-day voters, and those measures that were significant were often inconsistently so. But upon further inspection, it seems as if early voting reforms did create stratification within the voting electorate. The changes we find between midterm and presidential elections—in both direction and magnitude—suggest that early voters are generally more active, engaged, and participatory. Legal context has no impact on tendencies to vote early during presidential years, whereas during midterm elections—when most voters are highly informed and attentive—the option to vote early has a significant impact. If only highly mobilized and engaged voters are considered—as is the case with midterm elections—then it should be expected that early voting options would be taken advantage of at a higher frequency.

Why, then, do we see so few statistically significant variables? One possibility has been raised already: the national surveys are simply poorly designed to track the diverse paths of localized electoral behavior. It was the much larger CCES that contained rich contextual measures, which provided us the most leverage on early voting; but this same study suffered from a paucity of psychological and cognitive measures, as it was primarily designed as a study of congressional representation.

Second, more measurement work may be needed on the early voting item. We know that citizens overreport turning out to vote and voting for the winner. Is

¹¹This latter advance, however, may turn out to be as much a curse as a blessing. What national samples gain in generalizability and in detailed survey items, they lose in allowing us to examine potentially important relationships between early voting behavior and campaign activity or legal changes at the local and state level.

there any reason to expect that they similarly misreport early voting? We cannot think of any reasonable account whereby a voter would feel social pressure to say that they voted on election day rather than before, but there may be one out there. Regardless, it would be helpful to subject the early voting item to closer scrutiny, perhaps by breaking down state-level early voting rates by observed early voting rates from election returns, or possibly by validating early voting reports as has sometimes been done for the turnout item.

One source of inconsistency in findings, though, may be the very dynamic institution that we are trying to model. Certainly, the surveys we examined differed across the elections, but the electoral rules, laws, and context themselves were rapidly being reformed. Early voting fragments the electorate, as up to half of the citizens in many states cast their ballot prior to election day. As a consequence, early voting altered campaign strategies and the decision calculus of the individual voter. The very meaning of elections changes as early voting advances. What was once a single day in which citizens came together to express their political sentiments has been transformed into something very different, but what this new social institution is, we are not yet certain (see Thompson, this volume).

References

- Alvarez, R. M. (1998). *Information and elections (rev. ed)*. Ann Arbor: University of Michigan Press.
- Alvarez, R. M., Hall, T., & Llewellyn, M. (2008). Are Americans confident their ballots are being counted? *Journal of Politics*, (forthcoming).
- Amenta, E. (1998). *Bold relief: Institutional politics and the origins of modern American social policy*. Princeton, NJ: Princeton University Press.
- Berinsky, A. J. (2005). The perverse consequences of electoral reform in the United States. *American Politics Research*, 33(4), 471–491.
- Berinsky, A. J., Burns, N., & Traugott, M. W. (2001). Who votes by mail? A dynamic model of the individual-level consequences of voting-by-mail systems. *Public Opinion Quarterly*, 65(1), 178–197.
- Box-Steffensmeier, J. M., & Kimball, D. (1999). *The timing of voting decisions in presidential campaigns*. Chicago: Midwest Political Science Association.
- Bradbury, B. (2005, January 1). Vote by mail: the real winner is democracy. *Washington Post*, p. A23.
- Fournier, P., Nadeau, R., Blais, A., Gidengil, E., & Nevitte, N. (2004). Time-of-voting decision and susceptibility to campaign effects. *Electoral Studies*, 23(4), 661–681.
- Gronke, P. (1992). Overreporting the vote in the 1988 Senate election study: A response to Wright. *Legislative Studies Quarterly*, 17(1), 113–129.
- Gronke, P. (2000). *The electorate, the campaign, and the office: A unified approach to Senate and House elections*. Ann Arbor: University of Michigan Press.
- Gronke, P. (2004). *Early voting reforms and American elections*. Paper presented at the Annual Meeting of the American Political Science Association, Chicago, IL.
- Gronke, P., Bishin, B., Stevens, D., & Galanes-Rosenbaum, E. (2005). *Early voting in Florida, 2004*. Paper presented at the Annual Meeting of the American Political Science Association, Washington, DC.
- Gronke, P., & Galanes-Rosenbaum, E. (2008). The growth of early and non-precinct place voting: When, why, and prospects for the future. In B. Griffith (Ed.), *America votes! A guide to election law and voting rights* (pp. 261–280). Cleveland, OH: Lachina Publishing.
- Gronke, P., Galanes-Rosenbaum, E., & Miller, P. (2007). Early voting and turnout. *PS: Political Science and Politics*, 40(4), 639–645.

- Hamilton, D. (2006). *The Oregon voting revolution: How a vote by mail experiment transformed the democratic process*. Retrieved April 13, 2006, from The American Prospect Website: www.prospect.org/cs/articles?article=the_oregon_voting_revolution.
- Kahn, K. F., & Kenney, P. J. (1999). *The spectacle of U.S. senate campaigns*. Princeton, NJ: Princeton University Press.
- Karp, J. A., & Banduycci, S. A. (2001). Absentee voting, mobilization, and participation. *American Politics Research*, 29(2), 183–195.
- Kenski, K. (2005). *Early voting reaches record levels in 2004, National Annenberg Election Survey show*. Retrieved May 10, 2008, from Annenberg Public Policy Center Website: http://annenbergclassroom.net/Downloads/Political_Communication/naes/2204_03_early%20voting%203_23_05_pr.pdf.
- King, G., Tomz, M., & Wittenburg, J. (2000). Making the most of statistical analyses: Improving interpretation and presentation. *American Journal of Political Science*, 44(3), 341–355.
- Kuttner, R. (2006). *Going postal: With vote by mail, Oregon has higher voter turnout and spends less money running election*. Retrieved April 16, 2006, from The American Prospect Website: www.prospect.org/cs/articles?article=going_postal.
- Lassen, D. D. (2005). The effect of information on voter turnout: Evidence from a natural experiment. *American Journal of Political Science*, 49(1), 103–118.
- McDonald, M. P. (2003). On the over-report bias of the National Election Survey. *Political Analysis*, 11(2), 180–186.
- Page, B. I. (1978). *Choices and echoes in Presidential elections*. Chicago: University of Chicago Press.
- Rosenstone, S. J., & Hansen, J. M. (1993). *Mobilization, participation, and American democracy*. New York: Macmillan.
- Stein, R., & García-Monet, P. A. (1997). Voting early but not often. *Social Science Quarterly*, 78(3), 657–671.
- Stein, R. M., Leighley, J., & Owens, C. (2004). *Voting, early voting and the determinants of vote choice: Is timing everything?* Chicago, IL: Meeting of the Midwest Political Science Association.
- Toffey, D. (2007). *Going nuts in the Nutmeg State?* Undergraduate thesis, Department of Political Science, Reed College, Portland OR.
- Wright, G. (1990). Misreports of vote choice in the 1988 NES senate election study. *Legislative Studies Quarterly*, 15(4), 543–563.
- Zaller, J. (1992). *The nature and origins of mass opinion*. New York: Cambridge University Press.

PAUL GRONKE (*The Psychological and Institutional Determinants of Early Voting*) received his PhD from Michigan, is Professor of Political Science at Reed College, and works as a consultant to the Make Voting Work initiative of the Pew Charitable Trusts. Gronke studies American politics and methodology, specializing in convenience and early voting, public opinion, congressional and presidential elections, and social science methodology. He has published a book, *The Electorate, The Campaign, and the Vote* (Michigan 2000) and scholarly articles in *American Journal of Political Science*, *Journal of Politics*, *Legislative Studies Quarterly*, *Public Opinion Quarterly*, *Electoral Studies*, *Political Research Quarterly*, and *American Politics Quarterly*, and chapters in edited volumes. In 2005, Gronke established the Early Voting Information Center (<http://earlyvoting.net>) to study early voting and advocate for best practices in voting by mail and early voting systems.

DANIEL KRANTZ TOFFEY (*The Psychological and Institutional Determinants of Early Voting*) is a graduate of Reed College (2007), with a BA in Political Science. His thesis was titled “Going Nuts in the Nutmeg State.” Toffey currently works for Senator Mary Landrieu’s campaign and held a Fautz-Ducey internship with the Democratic Senatorial Campaign Committee in 2006.

Copyright of Journal of Social Issues is the property of Blackwell Publishing Limited and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.