Attachment 2
Declaration of Sean Patrick Trende

Part 3 of 3


EXHIBIT 11
Early Voting and Turnout

Early or convenience voting—understood in this context to be relaxed administrative rules and procedures by which citizens can cast a ballot at a time and place other than the precinct on Election Day—is a popular candidate for election reformers. Typically, reformers argue that maximization of turnout is a primary goal, and reducing barriers between voters and the polls is an important method for achieving higher turnout. Argument in favor of voting by mail, early in-person voting, and relaxed absentee requirements share this characteristic.

While there are good theoretical reasons, drawn primarily from the rational choice tradition, to believe that early voting reforms should increase turnout, the empirical literature has found decidedly mixed results. While one prominent study suggests that voting by mail is associated with a 10% increase in turnout, other studies find smaller—but still statistically significant—increases in turnout associated with other convenience voting methods.

In this paper, we review terminology (“what is early voting?”) and illustrate the breadth and popularity of these reforms; briefly review prior research on early voting, focusing on the political arguments being made in favor of reform and the social scientific findings of the impact of reform on turnout; and finally, add new evidence, adding a positive impact on turnout. Most other reforms have a negligible, and at times negative, impact on turnout. These findings are consistent with much of the literature, which shows that campaigns (primarily mobilization efforts) and individual political predispositions are the primary determinants of turnout. Institutional reforms have, at best, a small effect, and are unlikely to solve the challenge of low voter participation in the United States.

An Introduction to Early Voting

What is Early Voting?

For the purposes of this paper, early voting is a blanket term used to describe any system where voters can cast their ballot before the official Election Day. This covers a bewildering array of different electoral systems in the United States and, increasingly, abroad. Primarily, we will use the term to mean in-person early voting, no-excuse absentee balloting, and vote by mail (see Table 1 for a summary).

Some states allow early in-person (EiP) voting, whereby voters can cast early ballots just as they would do on Election Day, most commonly at the local elections office, but increasingly at other locations such as community centers, churches, or even grocery stores. The important distinction between EiP and other early voting systems is the requirement that individuals show up in person to cast a ballot. If we believe that getting to the polls imposes a significant barrier to participation, then in-person systems only partially relieve this burden; in addition, the convenience factor varies between systems, depending upon where voters can cast ballots (the elections office vs. the grocery store, for example).

No-excuse absentee voting allows voters to request an absentee ballot without providing any excuse, such as travel or hospitalization; in some states, notably California, a voter can also request “permanent” absentee status, essentially becoming a vote-by-mail voter. Thus, we do not discuss absentee balloting as we have traditionally understood it: casting your ballot before Election Day because you are out of the country (in the military or living overseas), away at college, or otherwise unable to make it to the polls. This form of absentee balloting has historically been quite restrictive, and the proportion of ballots cast via this method very low. No-excuse absentee balloting, in contrast, has skyrocketed in many states and localities.

Finally, vote-by-mail (VBM) is a system in which all voters receive and cast their ballots via regular mail. It has been used by Oregon for all elections since 1998 (the first election conducted in this manner was a 1996 special election); the United Kingdom uses VBM for local elections; VBM has been used in some local elections in California, and two counties in the state are VBM counties. Under VBM in Oregon, the voter receives a voter’s guide approximately three weeks before Election Day, followed by the ballot, generally mailed 18 days before the election. The voter may return the ballot any time after it is received, usually 15 days or closer to Election Day. Voters may also return their ballots in person on election day, thereby rendering many “VBM” votum de facto Election-Day voters.

Where are the Reforms Occurring and are Voters Responding?

The first voting reforms aimed at increasing voter convenience took place in the 1980s.
Table: Early Voting Systems

<table>
<thead>
<tr>
<th>State</th>
<th>Early Voting Dates</th>
<th>Early Voting System</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>Oct 28 - Nov 1</td>
<td>Pre-ECSS[74]</td>
</tr>
<tr>
<td>Florida</td>
<td>Oct 27 - Nov 1</td>
<td>Pre-ECSS[74]</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>Oct 26 - Nov 1</td>
<td>Pre-ECSS[74]</td>
</tr>
<tr>
<td>Texas</td>
<td>Oct 25 - Nov 1</td>
<td>Pre-ECSS[74]</td>
</tr>
<tr>
<td>North Carolina</td>
<td>Oct 24 - Nov 1</td>
<td>Pre-ECSS[74]</td>
</tr>
<tr>
<td>South Carolina</td>
<td>Oct 23 - Nov 1</td>
<td>Pre-ECSS[74]</td>
</tr>
</tbody>
</table>

when familiar forms of exclusive voting (absentee and EIP) were opened to the wider electorate. Rather than being simply the "safety-net" for voters who were sick, elderly, disabled, college students, or travelers, as it was originally intended and developed, early voting became a method aimed at easing the burden of going to the polls on Election Day. Now, instead of requiring absentee voters to provide a "reasonable excuse" for requesting a non-precinct ballot in advance of the election, states would allow anyone to do so. Similarly, many states allowed voters to cast a ballot at the county clerk's or elections office before Election Day if they were going to be out of town or needed assistance; in the 1980s, Texas began allowing anyone to cast a ballot this way.

As shown in Table 2, by the late 1990s, 20 states had at least one type of convenience voting on the books, and some had two: Kansas and Washington allowed voters to apply for "permanent absentee" status, which operates exactly like VBM (ballots are automatically sent to voters each election); six states allowed both no-excithe absentee voting and EIP (or absentee) voting. In 1995, Oregon had its first election under the VBM system, and has conducted all subsequent elections in the same way since 1999.

The 2000 presidential election's myriad scandals and debacles (made both technologically and ethically in nature) gave birth to a national movement toward overhaulign the electoral system. In the wake of the election, many states expanded their election systems to include convenience options—some states even adopted additional early voting options (e.g., Florida, which added no-excithe absentee voting to EIP). The Help America Vote Act (HAVA, 2002) also spurred the growth of early voting. The administrative and technological benefits of early voting systems became particularly important in the period following 2000: a test-run of new voting machines, relief of Election-Day crowds, lower staffing costs, and extra hands-on training opportunities for poll workers appeal to voters and election officials alike.

Generally, the non-precinct voting reforms administered over the last 25 years have taken place outside the Northeast. The West Coast and Southwest, in particular, began instituting postal methods early (VBM, no-excithe absentee), and Texas has become the most prominent EIP state, with eight other states following Texas's lead. This trend is quite clear in the rates of early voting in the 2004 general election (see Figure 1).

While not uniformly the case, high numbers of early voters primarily appear in states with a high percentage of rural population and in those that are geographically large. The 15 states with the highest early voting rates in 2004 all fit these descriptions (see Table 3). This fits a pattern found in other analyses of individual early voting rates—individual voters who face long commutes or who live in rural areas were more likely to cast their ballot early (Gronke 2004).

It also appears that those states that adopted non-precinct voting systems early can also have the highest current rates of early voters. Eleven of the "Top 15" early voting states in 2004 had instituted some type of liberalized early voting by the 1990s. Only eight of the remaining 25 had liberalized by that point (compare Tables 2 and 3). What is overwhelmingly apparent from Figure 1 and Table 3 is the rapid increase in early voting once states adopt these reforms. A significant portion of voters clearly prefer voting at locations other than the precinct place, and on days other than Election Day. In some states, this proportion peaks at 30-40% of the electorate, but in other states there seems no upper bound. For example, 85% of Washington voters cast their ballots absentee in 2006, and Washington State is likely to move to fully VBM by the 2008 election.

Convenience Voting Reforms and Turnout: The State of the Literature

Election officials are strong advocates of early voting reforms, Oregon Secretary of State Bill Bradbury argues that voting by mail increases turnout and results in more citizens having a stake in their government; results in more thoughtful voting, enhancing the democratic process; offers greater procedural integrity; and finally, saves taxpayer dollars. Similar arguments have been made in favor of EIP and relaxed absentee voting.
Figure 1
2004 Early Voting Rates

Alaska

Hawaii

Early Voting Rates for the November 2004 General Election, by State

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Table 3
Changing Rates of Early Voting in the Top 15 Early Voting States

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>12%</td>
<td>21%</td>
<td>36%</td>
<td>44%</td>
</tr>
<tr>
<td>1970s</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980s</td>
<td></td>
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<td>1990s</td>
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<tr>
<td>2000s</td>
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</table>

The two primary national organizations that deal with election administration, the National Conference of State Legislatures (NCSL) and the National Association of Secretaries of State (NASS), both issued reports after the 2000 elections, and again after the passage of HAVA that urge states to consider reforms that would allow early voting (NCSL 2001; NASS 2003; 2001; Bradbury 2001). Many reformers hope that early voting may help reengage Americans in the electoral process (ACE Project 2004; Nagourney 2002; Magleby 1987).

The empirical evidence to date supports election officials in their claim of procedural integrity. EIP, absentee balloting, and VBM all do result in a more accurate count (Alvarez and Hall 2003; Hamer and Traugott 2004; Traugott 2003). The verdict on cost savings is less clear. Oregon estimates that it saved nearly 17% of the costs of holding elections by adopting VBM, while EIP and liberalized absentee balloting do not clearly result in a cost saving (reported in Hansen 2001). However, improved procedural integrity and the slight positive cost savings have led to widespread recommendations in favor of all varieties of early voting (particularly in response to HAVA requirements). Simultaneously, the use of postal voting is expanding worldwide (Hall 2003; Wintour and Carter 2002; Institute for Democracy and Electoral Assistance, “Postal Voting and Voting on the Internet”). There seems little question, then, that “Election Day in the United States is rapidly turning into an anachronism: waiting in line to cast our ballots will become the quaint notion of a bygone era” (Gruske 2004). Early voting and extended election periods are here to stay.

The empirical evidence on turnout is also positive, but less so. Early voting should increase turnout, theoretically, by easing the resource demands of voting, primarily by eliminating the need to go to the polling booth or by providing more convenient times to vote (McDonald and Popkin 2001; Rosestone and Hansen 1993; Tufte 1992; Wollinger and Rosenstone 1980). The empirical evidence supports this expectation. Liberalized absentee balloting leads to a small but significant growth in turnout (Oliver 1996; Dubin and Kalsow 1996). EIP also stimulates participation, again only slightly (Neelley and Richardson 2001; Stein 1998; Stein and Garcia-Monet 1997). Finally, VBM increases turnout (Bennisky, Burns, and Traugott 2001; Karp and Banducci 2000), perhaps by as much as 10% (Southwell and Burchett 2000a). Initial boosts in turnout, however, may be due in part to a novelty effect, which fades over time.

Citizen support of early voting has been high as well. We know, for example, that Oreganians love VBM. They report a very high level of satisfaction with the system and claim that it makes them more likely to vote (Southwell 2004; 1998; 1996). In Texas, roughly one-third to one-quarter of ballots are cast early. In California in 1976, 4.41% of votes were absentee; by 2006, 40% cast absentee ballots. In Washington State, more than 85% of ballots were absentee in 2006, rising to 100% in some counties (essentially stealth VBM). Nationwide, the CalTech/MIT Voting Technology Project (2001) reported that non-precinct voting rates exceed 15% in more than 12 states in 2000, and the Early Voting Information Center estimated an early voting rate of 21% in 2004 and 2006.

The performance of electoral reforms on changing who votes, however, is decidedly mixed. Bennisky (2004, i) writes: “[w]hat has not been widely recognized is that this wave of reforms has exacerbated the socioeconomic biases of the electorate.” Bennisky’s claim is sustained in compositional studies of all three systems: EIP (Stein 1998), liberalized absentee balloting (Patterson and Caldeira 1983; Oliver 1996) and VBM (Karp and Banducci 2000; Bennisky, Burns, and Traugott 2001; Southwell and Burchett 2000). These systems are more commonly taken advantage of by politically active segments of the population. VBM increases turnout more by retaining likely voters in less-intense campaigns (e.g., midterm and local elections) than by recruiting new voters into the system (Bennisky, Burns, and Traugott 2001; Southwell and Burchett 2000; Southwell 1998). The studies of absentee balloting indicate that rates of absentee voting vary positively with levels of partisan mobilization: candidates harness absentee voters in localities were party organizations are strong, and Republican candidates are more likely to harvest absentee voters (Patterson and Caldeira 1983; Oliver 1996). Stein’s (1998) study of EIP in Harris County, Texas, showed that there were significantly larger numbers of Democrats and strong partisans among the “early voters” than among the Election Day voters.

These past studies, while helpful, are hampered by limitations in research design and methodology that limit their applicability to the past decade of reforms. Most importantly for our purposes here, many of these studies are ancient history from the perspective of early voting. Karp and Banducci (2000) and Southwell and Burchett’s (2000b) studies considered only the first three VBM contests. Magleby’s (1987) pioneering work looked just at municipal elections in three western states in the early 1980s. Stein’s (1998) study of EIP voting is based on a single election (1994) in a state where rates of early voting have increased dramatically in the past decade, and his results are contradicted by a more recent study (Neelley and Richardson 2001). Neelley and Richardson’s study is itself based in just one county in 1996, and relies on self-reports of turnout. Finally, the two studies of absentee balloting (Patterson and Caldeira 1983; Oliver 1996) rely on absentee ballot rates that are less than half what we are today.

Early Voting and Turnout, 1980–2004

In this final section, we evaluate the impact of early voting reforms on turnout over a 24-year period. We wanted to see if we found effects of a similar magnitude across a wide variety of electoral and campaign contexts, over time, and across different kinds of voting reforms. We drew upon an established model of

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turnout from Tolbert and Smith (Tolbert, Grummel, and Smith 2001; Tolbert and Smith 2005). In these papers, the authors argue that ballot initiatives, far from making the election too complicated and thereby discouraging turnout, do the opposite: they increase turnout, primarily by increasing the salience of the election.

Here, we are less interested in replicating their findings for the effects of initiatives as we are in seeing whether early voting reforms similarly increase turnout—not by educating the electorate, but by lowering at least one barrier to ballot access. We are fortunate to be able to use this dataset because it contains a rich set of other correlates of turnout, including region, election type, institutional provisions, and demographic characteristics of the state (racial diversity and per capita income). To this dataset we added a measure of early voting reforms, collected from archival sources. We coded reforms into six categories: “traditional” absentee ballots; “no-excuse” absentee ballots; no-excuse absentee ballots with permanent absentee status; EIP voting; no-excuse absentee plus EIP voting; and VBM. These six categories were then collapsed into dummy variables, with traditional absentee ballots as the excluded category, and added to the turnout model. As a reminder, Table 1 provides a guide to which states fall into these categories.

Our replication and extension results are presented in Table 4. We report on a model of turnout in presidential years (column 1) and midterm years (column 2). We will focus our discussion here on the impact of voting reforms on turnout. We find little evidence that early voting reforms increase turnout, except for VBM in Oregon, and then only in presidential elections. As shown in Table 4, column 1, VBM is associated with a 4.7% increase in turnout in presidential years. This is less than half of the increase reported by Southwell and Burchett (2000a). We found that the other voting reforms show a positive impact on turnout (no excuse absentee ballots and no-excuse absentee ballots plus permanent absentee status), while two depress voting (EIP voting and no-excuse absentee ballots plus no-excuse EIP voting). However, none of these effects are statistically significant.

In midterm elections, none of the reforms has a statistically significant impact on turnout, although the size of the coefficient on VBM changes only slightly. All of the other coefficients remain well below conventional statistical significance levels and the size of the estimated effect is either quite small or shifts from model to model.

We want to highlight, however, the relatively large, negative, and stable coefficient associated with EIP voting in both models, albeit in both cases with large standard errors. Visual inspection of those states with only EIP voting provides some evidence as to why this effect may persist. The five states with EIP voting in 2004 were Arkansas, Nevada, Tennessee, Texas, and West Virginia. Since 1998, these five states have an average turnout of 44%, while all other states have an average turnout of 51%. Perhaps these five states have some characteristics that are not contained in our model and which lead them to both limit their convenience voting reforms to EIP voting (there are few states that allow early voting but which still require a reason for an absentee ballot) and which also lead them to have lower than average turnout.

Conclusions

Our goals in this paper were threefold. First, we described the lay of the land with respect to early voting reforms, defining the institutional changes, illustrating their geographic dispersion, and reporting the growing number of early voters. Early voting reforms are rapidly expanding nationwide, and will likely be available in virtually every state in 2008. The number of early voters continues to increase rapidly in each election, and in some states shows no signs of abating. It is no longer a question of whether early voting is a smart reform; the question now is what sort of early voting to allow and how to adjust to its impact.

Second, we reviewed the extant political science literature with respect to early voting. Previous scholarly work found a positive impact of early voting reforms on turnout, varying from small (5%) in the case of absentee balloting, to over 10% in the case of VBM. We pointed out, however, that many of these studies looked at a relatively limited historical period, when relaxed balloting requirements were only starting to be introduced and were a novelty.

Finally, we estimated a comprehensive model of early voting and turnout from 1980–2004. We built upon an extant model of turnout, adding to it a series of variables representing early voting innovations. In this analysis, we did find a positive impact of early voting reforms on turnout, but only in the state that first initiated VBM in 1995 and fully adopted it after 1998, and in that case, only in presidential years. The boost in turnout is smaller than reported in previous work but still significant. We are not particularly surprised at these modest results. These findings support much of the literature that has found, at best, a modest impact of voting reforms on turnout. Our results
are also consistent with theoretical presentations of the paradox of turnout. John Aldrich (1993), in his summary of the rational choice literature on turnout, describes voting as a decision made at the margin, and thus responsive to relatively small changes in costs or benefits. We view early voting as a minor change in the costs of voting, making it more convenient to be sure, but pa-
ing in significance to such effects as feelings of citizen empowerment, interest in and concern about the election, and political mobilization by parties, candidates, and other political organiza-

tions (Stein, Owens, and Leighty 2003; Rozenstone and Hansen 1993).

In conclusion, we remain skeptical of those who advocate in favor of early voting reforms primarily on the basis of increased turnout. Both these results, and prior work in political science, simply do not support these claims. There may be good reasons to adopt early voting—more accurate ballot counting, reduced administrative costs and headaches, and increased voter satisfaction—but boosting turnout is not one of them.

Notes

*This work is supported by the Carnegie Corporation of New York, the ABLE/ Brookings Election Reform Project, and the Charles McKelvey Fund of Reis College. Thanks to Caroline Tolbert and Daniel Smith for sharing data with us, and to David Magleby for comments on an earlier version of this paper. All responsibility for interpretations lay with the authors.

1. As an aside, at the time of this writing, two months after the 2006 elections, we are unable to obtain early voting statistics for more than half of the top 15 states. Many states report to us that they are compiling this information for the Election Assistance Commission’s 2006 Election-Day survey, scheduled to be completed by March 2007.

2. Magleby (1997) estimates a 19% increase using VBM, based on a study of local elections in California, Oregon, and Washington. This figure is dramatically higher than that obtained in other studies. However, all studies find a pattern of increasing turnout effects in lower profile contests, so it may be that this figure is accurate.

3. We do not describe or justify the inclusion of these variables here. Interested readers should go to Tolbert and Smith (2005) for this information. We thank Tolbert, Greener, and Smith for allowing us access to their data.

4. These results match in broad brush strokes the results reported by Tolbert and Smith (2005), although we do use one additional election cycle in the data. We were able to replicate Tolbert and Smith’s result sensibly when limiting ourselves to 1990–2002 and using their turnout model.

5. Southwell and Burckett only examined turnout in the first three VBM elections, two of which were special elections to replace Senator Robert Packwood, who retired under a cloud of ethics charges. The third was a presidential preference primary. Each of these elections showed higher than normal turnout.

6. The p-value on the EIP voting coefficient is .84 in the presidential year model and .192 in the midterm model.

7. As shown in Table 2, Florida, Illinois, Louisiana, and Maine added EIP voting after the 2004 election.

References


PVA
dot.Internet Voting (August 4, 2004).


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EXHIBIT 12
Early Voting Reforms and American Elections

Paul Gronke
Reed College

August, 2004

Paper presented at the Annual Meeting of the American Political Science Association, Chicago IL, September 2-5, 2004. This research was supported in part by the Alta Corbett Fund and Daniel R. Levine Fund at Reed College. The author acknowledges the advice of R. Michael Alvarez, Robert Stein, James Thurber, Michael Traugott, Christopher Zorn, and the participants in the Reed College Summer Research Seminar.

Special thanks go out to Paddy McGuire at the Oregon Secretary of State’s Office and John Kauffman, Director, Multnomah County Office of Elections.

All errors and omissions remain the responsibility of the author.
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Introduction

The United States is in the midst of a reform era. After the controversy surrounding the 2000 election results, Congress passed the Help America Vote Act (HAVA) of 2002. As a result of HAVA, every state in the nation will have to establish a statewide voter registration system by 2006. Disabled citizens will have guaranteed access to the polls. America's men and women in the armed forces will have their ballots counted in a timely fashion. And Native Americans, Latinos, and other disadvantaged groups that have traditionally faced barriers to participation will have these barriers reduced or eliminated altogether. Since 2000, non-partisan groups, political parties, and candidate organizations have paid far closer attention to the mechanics of ballot counting. Legal challenges have forced some states to abandon mechanical vote-counting systems in favor of presumably more reliable technologies (such as optical character scanning and touch screen).

These are the reforms that were mandated by Congress, endorsed by the President, and are being implemented nationwide. There is, however, a quieter set of reforms that have been advancing across the nation for more than a decade, a set of reforms that have a far greater potential to change the way that elections are being conducted, not only in the U.S. but worldwide. States and localities have been systematically relaxing the requirements for absentee balloting; others provide for a period of in-person early voting (where citizens can cast their ballots as early as a month before election day); and finally, the State of Oregon mandated 100% voting by mail since 1998.

For an increasing number of Americans, then, “election day” is a historical relic. Instead, ballots are cast at the individual's convenience, up to three weeks before the scheduled date of the election. Why has this change taken place? What consequences might this change have for the behavior of candidates, non-partisan political groups, and the voters themselves? Does early voting augur well for the quality of democratic decision making in the United States?

This paper takes a look at these important political questions. In the first section, I describe the advancement of early voting systems, a process that started slowly in the
1980s but has accelerated rapidly in the past few years, followed by a review of the scholarly literature on the subject. Next, I provide the theoretical motivation and methodological approach of my research. I argue that, for campaigners, early voting alters their strategic calculus. It increases the uncertainty about turnout and as a result increases campaign costs. For voters who are well-informed and confident in their choices, early voting provides an opportunity to express their preferences quickly and conveniently. It is less clear how early voting will impact less well-informed voters. Finally, I subject these hypotheses to empirical tests, drawing upon aggregate data on rates of early voting and individual level ballot return data from the state of Oregon. The empirical results show that early voting varies in reasonable ways: voters who are willing to identify with a political party, voters from areas with higher commute times, incomes, and average educational levels tend to cast their ballots earlier. I close by suggesting avenues for future research, focusing particularly on ways to combine contextual, campaign, and individual level approaches to a model of voter decision making under systems that allow early voting.

What is Early Voting?

For the purposes of this paper, early voting is a blanket term used to describe any system where voters can cast their ballot before the official election day. This covers a bewildering array of different electoral systems in the United States and, increasingly, abroad. Primarily I use the term to mean in-person early voting, no-excuse absentee balloting, and vote by mail (see Table One for a summary).

In-person early voting is when a voter can cast a ballot, most commonly at the local elections office, but increasingly at satellite locations such as community centers, churches, or even grocery stores. The important distinction between in-person early voting and other early voting systems is the requirement that individuals show up in person to cast a ballot. If we believe that getting to the polls imposes a significant barrier to participation, then in-person systems only partially relieve this burden.

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1 Examples were drawn from the early voting sites provided in the most recent election in Harris County, TX (www.harrisvotes.org), Johnson County, IA (www.johnson-county.com/auditor) and Shelby County, TN (www.shelbyvote.com).
**Gronke, Early Voting**

No-exercise absentee balloting is where voters do not have to provide a reasonable excuse for voting absentee (in some states, notably California, a voter can also request "permanent" absentee status, essentially becoming a vote-by-mail voter). Thus, I do not discuss absentee balloting as we have traditionally understood it: casting your ballot before election day because you are infirm, out of the country (in the military or living overseas), away at college, or otherwise unable to make it to the polls. This form of absentee balloting has historically been quite restrictive, and the proportion of ballots cast via this method very low. No-exercise absentee balloting, in contrast, has exploded in many states and localities.

<table>
<thead>
<tr>
<th>Early Voting System</th>
<th>AKA</th>
<th>Mechanics</th>
<th>Where Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote by Mail</td>
<td>&quot;Postal Voting&quot;</td>
<td>Voters receive a ballot in the mail, approximately two weeks before the election. Ballots can be returned via mail or dropped off at satellite locations.</td>
<td>Oregon, United Kingdom (local elections), New Zealand</td>
</tr>
<tr>
<td>In-person Early Voting</td>
<td></td>
<td>Voters have the option of casting a vote early at a satellite location or at the county elections office. In most localities, the voter simply shows up; no prior notification is required.</td>
<td>Rapidly expanding list; Texas for the longest, Georgia, Tennessee, Iowa.</td>
</tr>
<tr>
<td>No excuse absentee</td>
<td>&quot;Vote by mail&quot;</td>
<td>Voters have to apply for an absentee ballot, but no excuse is required. Voters receive the ballot as early as 45 days before the election and must return by the date of the election. In some localities, a ballot postmarked on or before the election counts as valid.</td>
<td>Many states and localities.</td>
</tr>
</tbody>
</table>

Possible sources of confusion: In an increasing number of localities, absentee balloting can be done in person (and is often referred to as early voting) or via mail (sometimes referred to as "vote by mail"). Many localities are not distinguishing between the two when reporting absentee ballot figures. In Sweden, "postal voting" is used to describe in-person voting at the post office.
Finally, vote-by-mail (VBM) is a system that has been used by the State of Oregon for all elections since 1998 (the first election conducted in this manner was a 1996 special election). Under VBM, the voter receives a voter's guide approximately three weeks before election day, followed by the ballot, generally mailed 18 days before the election. The voter may return the ballot any time after it is received, usually 15 days or closer to election day.  

Citizens have voted with their feet (or stamps), increasingly choosing early voting over precinct voting on election day. This has led to a rapid growth in early voting among those states that have relaxed their requirements. In Oregon, survey data shows that Oregonians love vote by mail. They express a very high level of satisfaction with the system and claim that it makes them more likely to turn out to vote (Southwell 2004a, 2004b, 1998, 1996). Almost three-quarters of Oregonians say they like it for the convenience; “saves them time” and “gives them more time to read the ballot” are also commonly cited benefits to vote by mail.

Texas is the best-known example of in-person early voting. Since 1988, Texas has allowed voters to cast a ballot up to three weeks before the election. As shown in Figure One, statewide rates of early voting have increased from 24% in 1988 to 38% in 2000. As in Oregon, Texans express a great deal of satisfaction with early voting and took to the system rapidly. In 1992, the Harris County elections supervisor wondered “if there’s going to be anyone left to vote on election day” (Bernstein and Zuniga 1992). A party official believes that Texans like to vote early because it’s convenient: “(i)t is the convenience of voting while you are shopping” (Lawrence 2000).

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2 As noted in Table 1, an increasing number of counties use the term “vote by mail” to designate their newly liberalized absentee balloting systems. They also may use “in-person early voting” to describe voters who decide to vote absentee, but would rather show up at the county office rather than get a ballot by mail. In terms of analyzing early voting, these are distinctions without a difference, but the different labels can be confusing. In this paper, the system referred to as “vote by mail” is Oregon’s.
Tennessee's rate of early voting over a comparable period is displayed in Figure Two. Since relaxing absentee requirements in 1994, Tennessee has seen early voting increase much more dramatically than in Texas, from 5% in 1994 to over 35% in the 2000 general election. One Tennessean says she loves to "beat the crowd," while another said "I waited for 2 1/2 hours (to vote). This is silly. Why not just vote early?" (Drake 2003). Interestingly, as is evident in the figure, the proportion of residents who choose to vote "absentee by mail" has held steady (dropping after the 1994 primary). This is because Tennessee state law continues to restrict "by mail" absentee balloting while "in person" early voting is far less restricted. Most likely, many "by mail" absentee balloters in the 1994 primary were not being completely honest about their reasons for needing to vote absentee. Once in-person early voting became available, they switched to that method.
Other states show similarly dramatic growth in early voting. In 1978 in California, 4.41% of votes were cast absentee. By 2002, over 27% cast absentee ballots (Alvarez and Hall 2003). In Washington State, absentee ballots have grown 40% in just four years—2000, 54%; 2001, 67%; 2002, 66%; 2003, 76%—rising to 100% in four counties (essentially, “stealth” vote by mail).\(^3\) Nationwide, the CalTech/MIT Voting Technology Project reports that “non-precinct voting” rates exceed 15% in more than 12 states, comprising nearly 35% of the total US population (see Figure 3).

Early voting is not isolated to the United States. Worldwide, forty-six percent of the democratic nations listed in the EPIC Project database allow electors to cast ballots before the designated national election day.\(^4\) Of these nations, thirty-four percent allow early voting for everyone, while the remaining sixty-six percent limit early voting to electors who are, for a variety of reasons (e.g. in hospitals, living abroad, serving in the military) are unable to cast a ballot at the local polling place.

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\(^3\) Data available at the Washington Secretary of State website: http://www.sccstate.wa.gov/elections/.


In the United Kingdom, the option to vote by mail is open to anyone, but as if 2001, only four percent too advantage of it. In response to concerns over declining voter turnout in local elections, the UK has begun to test new ways of voting. Starting in 2002, 30% of local electoral authorities experimented with new balloting methods—basically. New Zealand also allows vote by mail for local, but not national elections. Sweden has allowed early voting at the post office (rather confusingly called “postal voting”) since the Second World War, but has recently stepped up its efforts to encourage early voting, and has announced plans to adopt internet voting within the next decade. In all three cases, early voting reforms have been adopted as a way to increase turnout, particularly in low turnout, low interest contests.

It should come as no surprise that candidates, parties, and other political organizations have adapted to this shifting electoral climate. Terry Holt, spokesperson

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5 Documents from the UK Commission overseeing this transition can be found at http://www.electoralcommission.org.uk.

6 This description of “voting by post” is taken from the Riksdagen guide to voting: http://www.samlbilsguiden.riksdagen.se.
GRONKE, EARLY VOTING

for the Bush/Cheney 2004 campaign, describes early voting as an expanded “strike zone ... (e)lection day is more than just one day now and state and national parties have had to adjust” (Vascarello 2004). Bush’s campaign director, Ken Mehlman, says that early voting mobilization efforts will have a “huge impact” (Harwood 2004). The Kerry campaign plans to make an “aggressive and robust effort to help voters make their voices heard early” (Vascarello 2004). Washington Post columnist David Broder cites an effort by the Republican-leaning Business and Industry PAC (BIPAC) to mobilize early voters among their member companies (Broder 2004), while John Harwood quotes a liberal activist from ACT: “(y)ou think of election day as a one-day sale, but Iowa has five whole weeks of Election Day” (Harwood 2004).

Citizens like early voting because it is convenient. Candidates like early voting because it allows them to focus their mobilization efforts on people who vote early and vote often, thus saving time and money for the final push at the close of the campaign. Election officials like early voting because it is cheaper (you do not have to hire extra workers to count ballots on election day) and more accurate (according to the CalTech/MIT Voting Technology project, absentee ballots are among the most accurately counted).

Election officials—and some political commentators (see Broder’s (2004) recent column)—also claim that early voting is superior on normative grounds. In democratic elections, David Broder writes, “the more participants, the better.” The UK Electoral Commission describes the 59.1% turnout in the 2001 British general as “shocking” and argues that new voting technology will reengage the electorate (UK Electoral Commission 2003). Not only does early voting lead to more participation, it also promotes higher quality participation. The Oregon Secretary of State says that vote by mail “results in more thoughtful voting, (thus) enhancing the democratic process.” (State of Oregon 2004). It is seldom the case that a major institutional change has unalloyed benefits. The reality is that early voting, while helping in some ways, hurts in others, but

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7 Their employer’s guide is available at [http://helpingamericansvote.org](http://helpingamericansvote.org).

8 As we shall see below, the cost-saving element of early voting depends on whether the county or state makes ballot return information available to the campaign on an ongoing basis.
mostly, these reforms are too recent to render judgment. In the next section, I review scholarly research to date on early voting.

**Previous Research on Early Voting**

According to the scholars at CalTech/MIT Voting Technology Project, there are at two ways to evaluate electoral reforms. First, does the reform increase the level of participation, and second, does the reform improve the quality of participation (CalTech/MIT 2001). Enough research has accumulated on the first question to state a scholarly consensus: *early voting does not increase turnout* by bringing new voters into the system. What it does is encourage regular voters to participate in lower intensity contests that they might otherwise skip. Research on the second question—on the quality of democratic decision making—is only just beginning to emerge. The empirical data are too sparse to make any conclusions about how candidate behavior or voter decision making may change under early voting.

Relaxed voting systems are more commonly taken advantage of by politically activated segments of the population. VBM increases turnout more by *retaining* likely voters in less intense campaigns (e.g. midterm and local elections) than by *recruiting* new voters into the system (Berinsky et al. 2001, Southwell and Burchett 2000b, Southwell 1998). Two studies of absentee balloting indicate that rates of absentee voting vary positively with levels of partisan mobilization: candidates harvest absentee voters in localities where party organizations are strong, and Republican candidates are more likely to harvest absentee voters (Patterson and Caldeira 1985, Oliver 1996). Stein’s study of in-person early voting in Harris County, Texas showed that that there were significantly larger numbers of Democrats and strong partisans among the “early voters” (Stein 1998).

In a recent review of this literature, Berinsky (2004, 1) writes: “(w)hat has not been widely recognized ... is that this wave of reforms has exacerbated the socioeconomic biases of the electorate.” Berinsky’s claim is sustained in compositional studies of all three systems: in-person early voting (Stein 1998), liberalized absentee balloting (Patterson and Caldeira 1985, Oliver 1996) and VBM (Karp and Banducci

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9 Curtis Gans believes that early voting actually decreases turnout (Gans 2001). However, Gans’s studies are hampered by a lack of multivariate controls. The CSAS staff compares turnout increases in states with early voting provisions to those without. A more complete analysis is needed in order to test this claim.
2000, Berinsky et al. 2001, Southwell and Burchett 2000b). Thus, we know that early voting reforms have compositional effects. We also have good evidence that early voting systems do not benefit one party or another (Hamner and Traugott 2004; Stein and Leighley 2003).

What we do not know, however, is anything about the variation in rates of early voting. All of the studies of VBM, for instance, compare the demographic (and to a limited degree political) characteristics of those who voted to either the general population or the voting-eligible population. Similarly, the two studies of absentee balloting fail to examine whether liberalized absentee requirements encourage voters to return their ballots well before the date of election. Only Stein’s three studies in Texas, which explicitly studied the in-person early voting system, can be used to make inferences about who votes early. And the problem with these studies is that, due to data limitations, neither considered the date of the vote, only to whether an individual voted early or not (Stein 1998; Stein and Garcia-Monet 1997).

Up to now, most of the studies of early voting have concentrated on its effect on turnout. This is understandable, given the importance of political participation in the democratic process. However, as the CalTech/MIT researchers point out, we also should attend to the quality of participation. On this question, extant research has been mostly silent. Addressing the impact of voting reforms on how individuals make up their minds is a challenging assignment. Finally, we might want to know how voting reforms affect the strategic decision making of candidates for office. In this area, political science has also been mostly silent. In the next section, I offer some initial thoughts on early voting, political candidates, and voter decision making.

Campaigns and Early Voting

Political candidates avoid uncertainty. Whether candidates are “running scared” (Mann 1978), engaged in “superstitious learning” (Kingdon 1968), or are discouraging their opposition (Jacobson and Kernell 1981), in all cases candidates are attempting to reduce the uncertainty inherent in democratic elections. Campaign efforts to mobilize their supporters, a key part of any electoral effort, are also a way to reduce uncertainty.
How do early voting systems alter this electoral calculus? The campaign calendar runs on a regular cycle. In American presidential elections, for example, the general election effort traditionally swings into action after Labor Day, followed since 1976 by a series of candidate debates in September and October, with a final election push toward November. Other federal, state, and local elections follow similar routines. Early voting disrupts this cycle. Candidates cannot be certain that their mobilization and conversion efforts are not being wasted on citizens who have already voted. Candidates cannot time campaign appeals or launch last minute attacks to coincide with election day. This implies that early voting will increase costs, as campaigns expend additional resources to reduce this uncertainty.

This prediction holds only if early voting really does increase uncertainty. If campaigns are able to find out who has cast a vote before election day, the opposite effect will obtain. Early voting will actually reduce campaign costs, although it should still undermine the ability of campaigns to launch last minute attacks. This leads to the following hypothesis:

H1: Early voting (E) increases the costs of campaigns. If campaigns are able to find out who has voted early, then EV will reduce campaign costs.

**Results**

The evidence I have accumulated thus far is strictly anecdotal, yet the results are very consistent. What campaigners refer to as "mixed systems"—election systems that have large numbers of absentee or early voters and precinct voters—substantially increase uncertainty and raise campaign costs. Contrary to my hypothesis, however, I have found no evidence that early voting combined with full data release by the state or county reduces costs. Campaigners under these systems complain just as bitterly about the necessity of carrying on an ongoing GOTV effort as those mired in "mixed" systems.

Newspaper accounts of campaigns of in-person early voting and liberalized absentee systems highlight the importance of lengthy mobilization efforts (Nagourney

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10 These results draw on three sources. First, I collected news stories that discussed the relationship between early voting and campaigns by searching on all three terms in Lexis Nexis since the 2000 election. Second, I conducted a series of interviews with get out the vote activists in Portland, OR. Third, I participated in a conference on vote by mail in Portland, OR that included political candidates, consultants, academics, and elected officials.
Gronke, Early Voting

2002, Wayne 2000). Local campaigners in Texas say they spend resources to recruit “early voters.” In Washington State, no candidate can afford to ignore the 76% of the electorate who currently mail in their ballot. At a recent conference, campaign consultants expressed frustration at the increasing costs involved in getting to voters in Washington, many of whom had already voted long before they were contacted (CCPS 2003). National parties, statewide campaigns, and even local candidates are devoting increasing resources to “get out the early vote” (Harwood 2004, Vascarello 2004, Nagourney 2002).

Candidates and activists in Oregon make similar claims about VBM even though ballot return information is available from county officials on a daily basis. At a recent conference, Congressman David Wu (OR-2) was asked to reflect on his experiences as a candidate, first under traditional polling place elections, and then under VBM. Wu, no great advocate of VBM, compared it to “Groundhog Day, the movie. You never know where you are on any day until Election Day.” (“Vote by Mail Conference”) Another political consultant describes Oregon as not “… hav(ing) an Election Day anymore. We have an election fortnight. You have to peak sooner and sustain longer.” (Pat McCormick, quoted in Cole 2002) While not based on systematic data, additional discussions and presentations from elected officials, campaign consultants, and journalists both at this conference and during confirmed Wu’s point: VBM increases the costs of campaigning, primarily because get out the vote (GOTV) efforts and campaign communications have to be spread over a longer period of time.

The results are consistent over time and across each type of reform: early voting reforms increase candidate uncertainty and raises candidate costs. The worst case scenario for campaigns is what already exists in many states and localities: a “mixed” system where large portions of the electorate choose to cast an absentee or early vote and the rest vote on election day. At present, I have no evidence that early voting systems undermine the ability of campaigns to time appeals or target negative attacks. Lacking a more comprehensive appraisal of campaign experiences over early voting systems, a

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11 In the 1993 film Groundhog Day, the main character, played by Bill Murray, is stuck in time, endlessly repeating the same day, “groundhog day.” This popular metaphor in Oregon politics was in fact first coined by political consultant David Lavey, quoted in AP (2000).
wider survey of newspaper reports from states undergoing these changes, or quantitative evidence on campaign costs, these results are preliminary.

**Who Votes Early? Aggregate and Individual Patterns**

We have preliminary evidence that early voting alters the strategic calculus of candidates, requiring them to spend more time, energy, and money contacting voters. For voters, does an extended election day alter their decision calculus? It may be that early voters, as a group, differ in significant ways from later voters. Yet even if this aggregate difference exists, it still does not mean that early voting matters. It may be that, other than submitting the ballot earlier, the individual voter behaves no differently than they would have on election day. Suppose, for example, that all early voters are strong partisans. These same partisans may cast a straight ticket vote 14 days before election day, or on election day. In that case, early voting makes no difference. In the paragraphs that follow, I propose some reasons why we should expect to find aggregate differences between early and late voters. I also suggest ways that early voting may, in fact, change individual level decision making. I end by turning to some data that bear on both of these questions.

It is well known that voters behave differently during hard fought, intense campaigns than they do during low-intensity contests. During a high intensity contest, voters are more likely to incorporate new information, rely on policy information, and are less likely to rely on pre-existing beliefs, partisanship, or ideology (Gronke 2000, Kahn and Kenney 1999). During low-intensity contests, voters rely on ideology, partisanship, and other more stable long term political orientations (Gronke 2000, Alvarez 1998).

What does this mean for early voting? My expectation is that voters will hold onto their ballots during high intensity contests, such as presidential elections, hard fought Senatorial and gubernatorial races, and high profile initiatives and referenda. In contrast, during low intensity contests (many state and local contests and perhaps U.S. House races), voters will be more likely to vote early. First, there is a compositional effect: in low-intensity contests, a higher proportion of those who turn out are well-informed, habitual voters who have standing commitments to one or the other political party. Second, campaign information flow is low enough during these campaigns that
there is little new information to be gained by holding onto the ballot. This leads to the second hypothesis:

H2: In the aggregate, rates of early voting should be negatively correlated with campaign intensity.

The same logic applies at the individual level, but now we can take advantage of both contextual features that make voting more or less convenient, campaign features that increase or decrease information flow, and individual level characteristics that make it more or less likely that a voter will participate.

The fundamental turnout model is well-known in the literature: an individual turns out to vote if the perceived benefit from voting multiplied by the probability that a vote will make a difference, minus the costs of voting, exceeds zero:

\[
\text{Vote if } 0 < pB - C
\]

For the purposes of this paper, I am only going to note a number of campaign, contextual, and individual level characteristics that I believe make it more likely that an individual will vote early. I have far too limited in the scope of my data collection to go much further.

Convenience: One of the costs of voting is how easy it is to physically get to the polling place. "Convenience" can be captured many ways. In Gimpel and Schuknecht's recent work, they correlate turnout with ballot box accessibility. They discover a curvilinear relationship: distance imposes the most burdens in suburban precincts, not rural precincts as we might naively assume. The reason is that even moderate travel (6-10 miles) in a rural area can be relatively fast and easy to maneuver, while shorter distances in suburban areas may involve difficult driving on congested streets (Gimpel and Schuknecht 2003). This leads to my third hypothesis regarding early voting:

H3: Rates of early voting are negatively related to the ease or convenience of voting at the precinct place.

Individual Predispositions: A substantial body of research in public opinion and electoral behavior indicates that greater amounts of information flow and longer exposure
to elite debate (assuming attentiveness) results in more informed decisions (Alvarez 1998, Delli Carpini and Keeter 1996). This supports the claims made by advocates of early voting systems that they will lead to more informed, reflective decisions. However, Zaller’s seminal work shows that only those in the midrange of exposure and interest are likely to be influenced by campaigns, so early voting may encourage reflection only for a subset of the voting population (Zaller 1992).

Research that directly targets time-of-voting decision shows this sort of heterogeneity. Time-of-voting decision mediates campaign effects. Box-Steppensmeier and Kimball (1999), for instance, argue that respondents who report making their minds up early are more heavily influenced by long-term forces, such as partisanship and ideology, while voters who make up their minds at the last minute are more likely to respond to short-term campaign effects. Fournier et al. (2004) similarly argue that campaign events, such as debates, are more influential among late deciders. According to Fournier et al. (2004), electoral scholars, by ignoring the time-of-voting decision, have “grossly underestimate(d) the strength of campaign effects by estimating them across the entire electorate…”

These gross underestimates will only be exacerbated as rates of early voting increase. In this research, I expect that committed partisans will cast their ballots early, thus missing late breaking campaign information and decreasing the “quality” of their decision. In contrast, the early arrival of the ballot encourages uncommitted voters to attend more to campaign information and to reflect more before casting their ballot. They will return their ballot relatively later. Thus, my fourth and fifth hypotheses:

H4: Early voters will include both the most and the least informed voters, but as a group, early voters will be less informed about campaign events.

H5: Rates of early voting will be conditional on voter partisanship and prior political information

Data and Methods

In order to test the hypotheses presented above, I need data from four sources. First, I need data on rates of early voting across as wide a variety of localities as possible.
Second, I need some measure of campaign intensity for those same localities. Third, I need surrogates for “convenience” of the precinct polling places. Fourth, I would need individual level data on partisanship and campaign exposure.

Not surprisingly, much of these data are not available at this juncture. This is a first report as part of a larger research effort. However, I have been able to accumulate some evidence for each of these hypotheses.

Rates of Early Voting: It is not clear how many states keep records on rates of early voting, nor whether those records distinguish between “by mail” early voting and “in person” early voting. The HAVA requirement of statewide registration records by 2006 may significantly improve this situation. At this stage, a number of states and counties keep limited historical records on early voting, and an even smaller number keep data on ballot returns by date (Harris County, TX, Johnson County, IA, Tennessee counties, and Oregon counties). Therefore, in order to test campaign effects, I am strictly limited to aggregate comparisons of rates over time and across campaigns (e.g. presidential, midterm, and off year elections). This leads to an amended version of hypothesis 2:

H2a: Rates of early voting will be higher in off-year elections, followed by midterm elections, with the lowest rates of early voting in presidential election years.

Individual Level Ballot Return Data: The Oregon election law is somewhat unique in that the date that the ballot is processed by election officials is a public record, and can be obtained on a nearly real-time basis by campaigners, GOTV groups, and others. One jurisdiction, Multnomah County, OR, made available to me the individual level ballot return data for the past five elections (the list of elections is contained in the Appendix). Future plans are to obtain these data throughout the state of Oregon, but this involves contacting (and paying for) each individual county. Unfortunately, these five elections do not span a presidential and a midterm election year, and they include some very high profile ballot measures that may complicate any test of H2.

\footnote{The only limit, as in many states, is that the data not be put to a commercial use. Note that the date reported in these data is not necessarily the date that the voter chose, nor the date that the ballot was returned. It is the date that the ballot was processed by county officials. There is an unavoidable gap.}
Attached to these records are the individual’s partisan affiliation and zip code. Therefore, I am able to test directly hypothesis 5, but only in Oregon:

H5a: Rates of early voting by mail will be higher among individuals who are willing to identify a partisan affiliation on their voter registration form.

Finally, note that there are no real “precincts” at all in Oregon. While “vote by mail” makes it sound like you are only able to return the ballot by mail. In fact, in the most recent election in Multnomah County, 16,000 ballots were returned to the local public library, 11,000 were returned to “express” locations (the local grocery stores), 8000 were returned by mail, and 6000 were returned to the county elections office.\(^{13}\) With all those caveats, for the purposes of this study, I will use the average commute time (per zip code) as a surrogate for precinct convenience. As a measure of political information, I employ a very poor surrogate: median income level. As other controls in the model, I add the percentage of the area that is non-white and the percent that is urban. All data are collected from the 2000 Census. Thus:

H3a: Rates of early voting will be higher for individuals who live in areas with higher average commute times.

H4a: Rates of early voting will be higher for individuals who live in areas with higher median income levels.

*Model Estimation for Individual Ballot Returns:* The dependent variable in the models that follow is the date that the ballot was returned. This variable runs from the date of the first processed ballot (generally 14 days before election day) to zero. Data of this format are variously described as event data, event history data, or event counts, where the “event” in our case indicates that a ballot was returned. Alternatively, one may think of the “duration” or “survival” rate as the period running from the first day that a ballot can be returned up to election day.

The appropriate specification is event history or survival analysis (for reasons why ordinary least squares regression cannot be used, see the texts listed below). The Cox-Proportional hazards model provides the greatest amount of flexibility with regards

\(^{13}\) This is another often ignored element of the “Vote by Mail” system in Oregon, and one on which I am currently collecting data. As with other examples in this paper, the frequency and quality of mode of ballot return data are highly variable.
to the underlying form of the data and is the functional form chosen here. The 
coefficients in the tables will be converted to hazard rates. These can be interpreted at 
the “risk” that a case will “fail”—in this case, vote—during any specified period. Fuller 
descriptions of duration models can be found in Box-Steffensmeier and Jones (2004), 
Zorn (2003), and Box-Steffensmeier and Zorn (2001).

Results: Campaign Effects

Does early voting vary in response to the campaign? The first examination of 
ey early voting over time suggested something quite different. Traugott and Hamner (2001), 
in a suggestive graphic, report ballot return rates by number of days before the election. 
As shown in Figure Two, more and more Oregonians seemed to be holding their ballots 
until late in the campaign. In the first VBM election, a 1996 January special Senate 
election, nearly 60% of the ballots were returned seven or more days before election day; 
by the 2000 November general election, that percentage had declined to 20%. I label this 
the “novelty effect”: once the novelty of a new voting system wears off, voters return to 
their traditional pattern of holding their ballots close to election day. This result, if it is 
sustained, ought to assuage any concerns that early voters will also be uninformed voters 
solely because they miss news that may come out near the end of the campaign.

Figure 2: Cumulative Daily Ballot Returns as a percentage of Total Ballot Cast for 
Statewide Vote by Mail Elections, 1996-2000. (Traugott and Hamner 2001)
Gronke, Early Voting

An alternative explanation of this pattern, however, is that which I have proposed here: campaign variability. What Traugott and Hammer read as a linear decline in the likelihood of early voting may indicate the difference between a special election and a hard-fought presidential contest. More recent data from Oregon support this hypothesis, or at least call into question the novelty hypothesis. Figure 3 below plots early voting rates for five recent elections in Multnomah County. With some variations in 2003, it would be accurate to say that the ballots were held longest in the two elections held in 2002, while each election in 2003 showed higher rates of early voting. The elections in which voters held their ballots longest were the 2002 primary election, one in which there were competitive primaries on both the Republican and Democratic sides for governor, followed by the 2002 general election, which featured a competitive gubernatorial contest (but non-competitive Senate race). Interestingly, the highest rate of early voting occurred in January 2003, during an extremely hard fought campaign for a statewide income tax increase intended to plug a budget gap. Perhaps the issue of the Oregon budget deficit and the legislature’s solution—a surcharge on income taxes—was one on which many Oregonians had made up their mind early, regardless of the local and national attention paid to the issue.
It is quite difficult to make similar inferences in other states. Because of vote-by-mail, Oregon has one of the most accurate voter registration rolls in the country (since you must have a current valid mailing address in order to vote) as well as one of the best systems for tracking ballot returns. I have found few other states that report the actual date of ballot return, whether they use in-person or relaxed absentee voting. I have discovered two counties that do keep track of the return dates, Johnson County IA and Harris County TX, and one state, Tennessee. Unfortunately, I was only able to obtain data over a reasonable historical time from Johnson County, Iowa. These are displayed in Figure 4. Due to the preliminary nature of these data, I will not dwell long on them, but will only point out the obvious pattern: early voting ballot requests came earlier, and in larger numbers, than in the two midterm elections. This provides additional evidence in favor of a campaign driven theory of early voting.
Results: Individual Effects

GOTV activists in Washington and Oregon categorize early voters into three groups. First, there are the committed early voters (under both absentee and VBM systems). These tend to be older, more established, and more partisan. Second, there is a group that always votes late. These folks are younger and less interested in politics. For them, the decision to vote at all precedes the decision of whom to vote for. Finally, there is the third, key group: the marginal voter, the voter who turns out some of the time, only when interested or only when mobilized. This third group is the most difficult to identify, is most fluid across campaigns, and is the group most responsive to campaign environments and mobilization efforts (Anonymous 2004; also see Martinez and Gill 2002 and Gerber and Green 2000 for similar arguments).
Table 2: Ballot Return Analysis, Multnomah County Data, 2002-2003

<table>
<thead>
<tr>
<th>Variable</th>
<th>May 02</th>
<th>Nov 02</th>
<th>Jan 03</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hazard Coefficient</td>
<td>Hazard Change</td>
<td>Hazard Coefficient</td>
</tr>
<tr>
<td>Democrat</td>
<td>0.0435 **</td>
<td>0.0445</td>
<td>0.0787 **</td>
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<tr>
<td>Republican</td>
<td>0.0462 **</td>
<td>0.0493</td>
<td>0.0924 **</td>
</tr>
<tr>
<td>Percent Urban</td>
<td>0.0477</td>
<td>0.0115</td>
<td>0.0143</td>
</tr>
<tr>
<td>Median Income</td>
<td>-0.0010</td>
<td>-0.0189</td>
<td>-0.0006</td>
</tr>
<tr>
<td>Commute Minutes</td>
<td>0.0060 **</td>
<td>0.0412</td>
<td>0.0050 **</td>
</tr>
<tr>
<td>Percent Non-White</td>
<td>-0.0807 **</td>
<td>-0.0166</td>
<td>-0.0876 **</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.6820</td>
<td>-2.6093</td>
<td>-2.5957</td>
</tr>
</tbody>
</table>

| N of Cases                      | 153004          | 228547          | 220591          |
| LR Chi (d.f.=8)                 | 133.61          | 313.63          | 654.18          |

May 03

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hazard Coefficient</th>
<th>Hazard Change</th>
<th>Hazard Coefficient</th>
<th>Hazard Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democrat</td>
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<td>0.0711</td>
<td>0.0460 **</td>
<td>0.0471</td>
</tr>
<tr>
<td>Republican</td>
<td>0.0048 **</td>
<td>0.0594</td>
<td>0.1484 **</td>
<td>0.1676</td>
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<tr>
<td>Percent Urban</td>
<td>0.0237</td>
<td>0.0072</td>
<td>0.1062 **</td>
<td>0.0266</td>
</tr>
<tr>
<td>Median Income</td>
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<tr>
<td>Commute Minutes</td>
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<td>0.0739</td>
<td>0.0161 **</td>
<td>0.0838</td>
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<tr>
<td>Percent Non-White</td>
<td>-0.1670 **</td>
<td>-0.0319</td>
<td>-0.0141</td>
<td>-0.0027</td>
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<tr>
<td>Constant</td>
<td>-2.7058</td>
<td>-2.6058</td>
<td>-2.5957</td>
<td></td>
</tr>
</tbody>
</table>

| N of Cases                      | 192194           | 150179          |                   |
| LR Chi (d.f.=8)                 | 477.36           | 774.11          |                   |

Notes: Data are individual level ballot returns from Multnomah County, OR. Dependent variable is the days before election that a ballot was returned. Urban, income, commute, and non-white are measured at the zip code level from the 2000 Census. Coefficients were obtained from a Cox proportional hazards model run in Stata 8. Coefficients with two asterisks are significant at the .01 level.

Individual ballot return records provide quantitative support to the GOTV activist's observation. As shown in Table 2, Hypothesis 5a receives consistently strong support. Individuals who are willing to check the "Democrat" or "Republican" box on Oregon's voter registration form are between 4.5% and 16% to have voted at any time point. The November 2003 results stand out—in this election, the Republican hazard rate was almost four times the Democratic rate. This special election include a ballot measure to establish a public utility district in Multnomah County, taking over for Pacific Gas and Electric, which was part of the Enron bankruptcy (the measure was defeated). Perhaps the rhetoric used by the opponents to the measure—that a government takeover was inevitably "costly and wasteful", resonated particularly well among Republicans.

A display of the actual (not predicted) ballot return rates from the November 2002 election, reported in Figure 5, provides a visual illustration of hazard rates. At any time point, the Republican and Democratic lines tracks approximately 10% above the line
for Independents, almost exactly what the survival model estimates. In conclusion, these results show that partisans take advantage of early voting systems to return their ballots sooner.

Hypothesis 3a is also supported. Recall that “commute time” acts as a surrogate for the convenience of balloting. For each of the five elections studied, individuals living in areas with a higher average commute return their ballots earlier, at a rate that exceeds the partisan rate in some elections. We are unable to say, given these data, that individuals with longer commute times vote earlier—commute times are available at the zip code level. Still, either the length of the commute, or some other area characteristic that is correlated with commuting time, is positively related to early voting.

Hypothesis 4a, however, is not supported. I used the median income of a zip code area as a surrogate for informed voters. The data indicate that, contrary to my expectation, individuals in higher income areas voted later in four of the five elections.

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For each model, the hazard rate is calculated by multiplying the coefficient by a given change in the independent variable. For party, the value was 1 (party is coded 0-1). For all other variables, the value chosen was a one standard deviation increase.
under study (although these results are statistically significant in only two elections). Finally, it is interesting to note that percent non-white is consistently related to later voting (the coefficient is negative, implying that individuals in areas with higher proportions of non-white residents vote later). I have no explanation for this pattern.

In summary, individual level analysis supports two of the three hypotheses. Partisans are significantly more likely to vote early, with intriguing variations across campaigns that bear further examination. Individuals in areas with longer commute times also take advantage of the early voting system, supporting the "convenience" result among absentee balloters found by Gimpel and Schuknecht (2003). Finally, my hypothesis about income and early voting was not sustained, although income is probably a poor surrogate for political information, the key theoretical variable.

**Future Directions: Campaign Dynamics and Early Voting**

Where to go from here? Thus far, I have suggested some hypotheses about how early voting may alter campaign strategies and voter decision making, but the evidence is very preliminary. To close, I would like to suggest directions that future research may take to integrate these two perspectives. Surely, rates of early voting are a consequence of both context, campaigns, and individuals (see Johson, Shively, and Stein 2003 for a similar argument). A theory that incorporates all three would take us a long way toward understanding the long term direction of early voting. I provide some suggestive empirical evidence on these relationships below.

One direction for future research would consider how early voting—or absentee balloting generally (if ballot return dates are not available)—varies across space. The next two graphics plot early voting rates in Tennessee and Texas. What is interesting about both of these figures is the dramatic variation in early voting rates across counties. In Figure 6, I plot the daily ballot returns from Tennessee in the 2002 general election. Overall, the rate of ballot return (the middle line) is fairly regular. But notice the dramatic differences between the Weakley County, with the highest level of the early voting on October 24th, and Williamson County, with the lowest level.15 Similarly,

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15 I chose these dates because they are seven days before the end of the early voting period, and can be compared to the seven day figures presented for Oregon above.
county by county variation in Texas is rather dramatic. Figure 7 shows box plots of county early voting rates for the 235 counties in Texas, since 1988. What is noticeable here is a) the slow growth in the median level of early voting, and b) the wide variation on the upper end.

Figure 6: Early Voting in Tennessee

Early Voting in Tennessee, Nov. 2002
(Statwide, highest, and lowest counties compared)

Why do voters in some counties vote absentee at very high rates, approaching 100%, while absentee voting in other localities percolates along at 10-15%? Weakley County is a small rural county located in the northwest corner of the state. Are the different rates of early voting a consequence of the races in 2002? Contextual characteristics? Aggressive election officials? Are the same counties in Texas consistently showing high levels of early voting, or do these change from year to year? Only time, and additional analyses, will tell. The hypotheses proposed here (convenience, campaign competitiveness) ought to provide some guidance to examining these data.
Conclusion

No political reform is all upside. If there is a downside to early voting, it is that voters can cast their ballots well before the campaign has ended, thus potentially missing information about the candidates. The sense of election day as a community wide, civic event is also diminished when 30% or more of the electorate has checked out of the campaign. These are the primary concerns raised by the opponents to early voting reforms. The proponents argue that early voting reduces the cost of voting for the individual, and makes the ballot counting procedure more accurate and efficient, no small concern given recent problems with voting technology.

Political science can make a contribution to this important policy debate, evaluating these competing claims. The research thus far has already disproved one commonly made assertion, that early voting increases turnout. It does not. Early voting does encourage turnout among regular voters for low-intensity contests, but it does not help solve the participation puzzle for new voters or those outside the system for reasons
of disinterest, language, disability, or other burdens. It is possible that this relationship may change as voters become used to early voting systems, as early voting locations become more easily accessible, and as political organizations adapt to the early voting system (see especially Stein, Owens, and Leighley 2003). As statewide voter registration systems fall into place in response to the federal requirements of HAVA, it is also possible that ballot return information may become readily and cheaply available on a “real-time” basis to campaigns. This should allow campaigns to target their appeals to citizens who have not yet cast a ballot, also possibly enhancing turnout in the future.

It is too early to make many conclusions regarding campaign effects. The evidence thus far is consistent, however. Campaigns like early voting because it allows them to get a leg up on their voter mobilization efforts, but they dislike it because of the cost. HAVA changes, referred to above, may alter this perception.

Finally, what of the voter: does early voting really improve democracy, as promised by some proponents? I was able to discover clear patterns among the ballot return data—early voters are more partisan and live in areas with a higher average commute. I have no evidence whether voters spend more time on the ballot or discuss the election with friends, neighbors, or co-workers. Southwell’s evidence, accumulated over six years of experience with vote by mail in Oregon, certainly indicates that voters like the system. Whether this translates into higher quality decision making is less clear.
## Appendix

### Multnomah County Elections Analyzed in this Paper

<table>
<thead>
<tr>
<th>Election Turnout</th>
<th>Description</th>
<th>Number of Ballots</th>
<th>Turnout</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 21, 2002,</td>
<td>Primary Election&lt;br&gt; Six major candidates running for Governor; non-competitive races for Senate</td>
<td>161,544</td>
<td>47%</td>
</tr>
<tr>
<td>November 5, 2002,</td>
<td>General Election&lt;br&gt; Races for US Senate and the Governorship</td>
<td>245,860</td>
<td>68%</td>
</tr>
<tr>
<td>January 28, 2003</td>
<td>Special Election&lt;br&gt; Vote on Measure 28, a statewide tax increase, to solve a budget gap</td>
<td>235,760</td>
<td>65%</td>
</tr>
<tr>
<td>May 20, 2003,</td>
<td>Special Election&lt;br&gt; Multiple local races and a countywide tax increase to solve the budget gap</td>
<td>204,662</td>
<td>56%</td>
</tr>
<tr>
<td>November 4, 2003,</td>
<td>Special Election&lt;br&gt; Measures to create, fund, and oversee a &quot;People's Utility District,&quot; for a publicly held power utility</td>
<td>160,328</td>
<td>46%</td>
</tr>
</tbody>
</table>
References

Newspaper and Magazine Articles


Voting Reports, Guides, and Other Materials


Helping Americans Vote: A Non-partisan, online service to make voting early for employees. Available at http://www.helpingamericansvote.org.


State of Oregon. 2004. “Vote By Mail.” Available from the Oregon Secretary of State’s office or online at http://www.arcweb.state.or.us.

**Gronke, Early Voting**


**Scholarly Research**


The Empirical Effects of Voter-ID Laws: Present or Absent?

Jason D. Mycock, University of Delaware
Michael W. Wagner, University of Nebraska
David C. Wilson, University of Delaware

The effect of voter-identification (voter-ID) laws on turnout is a hot-button issue in contemporary American politics. In April of 2008, the U.S. Supreme Court affirmed Indiana’s voter-ID law, the nation’s most rigorous, which requires voters to arrive at the polls with a state-issued photo ID containing an expiration date (Crawford v. Marion County 2008). In a famous incident highlighting how Hoosiers were dealing with their state’s voter-ID law, representative Julia Carson (D-IN) was initially blocked from voting during Indiana’s 2006 primary election for failing to comply with Indiana’s voter-identification standard. Carson identified herself with her congressional ID card; since that card did not include an expiration date and therefore did not meet Indiana’s voter-identification law, she was turned away at the polls before later being allowed to vote (Goldstein 2008). The rising wave of public, political, and legal debate crested two years later in the wake of the Supreme Court ruling and during the Indiana primaries, with reports of a dozen nuns being denied ballots at the polls due to their lack of appropriate identification (Urbsa 2008).

While political science research regarding the impact of voter-ID laws on turnout is scarce, a growing community of scholars is examining whether voter-ID requirements affect behavior. Though reservations regarding the fairness of these laws persist, we address the question of whether strict voter-identification requirements have already systematically affected voter turnout at the aggregate or individual levels. The early evidence paints an incomplete picture, consisting of some qualified claims that states with stricter voter-identification laws negatively, albeit marginally, affect turnout (Alvarez, Bulley, and Katz 2007; Baglen Institute of Politics and Moritz College of Law 2006; Vercellotti and Anderson 2006), while other reports find that these effects are too small to be of practical concern (Ansablebehe 2007; Muhlhanssen and Sikk 2007). Variations in the populations under investigation, the time periods examined, the statistical methods employed, and the specifications of the various models perhaps explain these inconsistencies. But research is also limited by theoretical shortcomings about why voter-ID laws should impact turnout.

In this article, we argue that voter-ID laws should have little to no effect on aggregate or individual-level turnout, particularly after considering political motivations for voting. This is not to claim that voter-ID laws will not have an impact on future voting nor are we arguing no one is impacted by voter-ID laws, rather we suggest that these laws have not had a significant impact on voting thus far. Moreover, given the get-out-the-vote initiatives and grassroots programs designed to increase civic engagement and inform voters, we expect that members of the electorate who are interested in voting are more likely to do so regardless of the state laws requiring various forms of identification.

While there are many examples of anecdotal evidence in the debate over disenfranchisement and voter-identification laws, like the one with which we open this article, we chose to put the question of the impact of voter-ID laws to an empirical test. Using multiple data sources, we explored whether strict voter-identification laws affect voter turnout at both the aggregate (state) and individual level. We find that voter-identification laws do not affect voter turnout, and as a result we fail to reject the null hypothesis of no effects. In the sections below we review our reasoning, data, and findings, and provide discussion and conclusions regarding the impact of voter-ID laws on turnout.

VOTER IDENTIFICATION AND TURNOUT
We argue that socio-demographic and political motivational factors are far more deterministic of voting than the imposition of identification laws. On the one hand, education remains a crucial factor that drives turnout (Schlozman and Brady 1988) and perhaps more importantly, political interest (Brady, Verba, and Schlozman 1995) is a strong and consistent force behind the decision to vote. Indeed, this supports earlier claims from The American Voter, where Campbell et al. wrote that "the stronger the individual's psychological involvement [in political matters] the more likely he is to participate in politics by voting" (1964, 102). On the other hand, the personal cost of voting is a potentially important part of the decision calculus as well (Downs 1957). Recent voter-ID laws potentially increase this cost in at least two ways. First, voters who fail to supply the necessary identification may be turned away without voting. Second, there are sometimes monetary and preparation costs associated with voter-ID laws that voters must incur. These costs may be relatively low or high depending on a voter's level of sophistication, work flexibility, or income.

Yet, voters who are interested in politics should be able to overcome the potential institutional barrier of strict voter-identification requirements while citizens who are
uninterested in politics should be less likely to vote regardless of the nature of a state’s voter-identification law. Moreover, many individuals who plan to participate in elections have already overcome any potential costs by obtaining government-issued identification, as well as other less stringent forms of ID. Thus, we hypothesize that voters with higher levels of interest in politics are more likely to vote, and are less affected by voter-identification laws.

From a theoretical standpoint, the voters most likely to be negatively affected by voter-identification laws are those who are interested in voting, but do not know and or have the proper identification. This population may include groups such as first-time voters, those not wanting to interact with government, or those whose Id’s have recently expired. For now, we are less concerned about the average member of the electorate not having a single form of government-issued identification. The data on voting-age citizens by demographic characteristics with or without photo identification is quite limited; however, recent data collected on six states (see Barcelo, Han, and Sanchez 2009 for an estimate of Indiana) show that while 35% of the voting-age population lacks the necessary identification to vote, 20% of minorities are lacking. However, not all the states examined (e.g., Wisconsin, California, Washington, or New Mexico) require government-issued photo ID, and these data cannot sufficiently say whether such an estimate has any relation to voting behavior, although there is the implication.

States requiring a photo ID to vote, including Indiana, have made special efforts to publicize the need for proper ID and encourage citizens to secure identification. For example, the State of Indiana spent $8.5 million on an outreach program to inform voters of the change in identification requirements, and its secretary of state’s office estimates that it increased its outreach efforts by 50% during the 2008 primary election season (Indiana Secretary of State 2008). In addition to outreach efforts, Indiana’s identification law was written to make acquiring a state-issued identification relatively painless. First, Public Law 109-255 requires that the Indiana Bureau of Motor Vehicles (BMV) issue any voting eligible citizen a free voter-ID card, which is valid for six years, upon request. Aside from monetary costs, time costs—in Indiana at least—also appear to be relatively low. The BMV estimates that the average visit time to one of the 146 statewide BMV offices is eight minutes, with the longest average visit time in the state at 14 minutes (Indiana BMV 2008c). Between January 1, 2007, and May 6, 2008, the BMV issued 375,100 free identification cards (Indiana BMV 2008b). Therefore, the biggest impediment to acquiring identification is a trip to the BMV, a trip that is likely to be a bit further than the distance travelled to a polling place, but made only once every six years.

The lead Supreme Court opinion in Crawford concurred with Indiana’s position that requiring photo identification was minimally burdensome (Crawford v. Marion County 2000). In two dissenting opinions, Justices Souter and Breyer were less sanguine about the ease of availability of appropriate ID for the poor, the disabled, and the elderly. So while average visit times to the Indiana BMV are quite low, certain voters (first time voters, minorities, seniors, etc.) may face more individu-
### Table 1:
Mean Turnout by Identification Requirement, 2000–2006

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Aggregate Turnout</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Name</td>
<td>68.3%</td>
<td>64.0%</td>
<td>70.3%</td>
<td>45.5%</td>
</tr>
<tr>
<td>ID</td>
<td>60.1%</td>
<td>47.2%</td>
<td>71.7%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Individual ID</td>
<td>66.0%</td>
<td>62.8%</td>
<td>75.0%</td>
<td>44.2%</td>
</tr>
<tr>
<td>Photo ID</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>66.3%</td>
<td>55.5%</td>
<td>70.0%</td>
<td>40.0%</td>
</tr>
</tbody>
</table>

| Individual Turnout (CCES)  |      |      |      |      |
| State Name                 |      |      |      |      |
| ID                          |      |      |      |      |
| Photo ID                   |      |      |      |      |
| Total                      |      |      |      |      |

Note: ANOVA F-tests comparing aggregate mean turnout across ID requirement categories reveal no significant differences in these differences overall years. However, we find in 2000 and 2004 states significantly higher than turnover in 2002 and 2006 (non-ANOVA results similar). State identification status patterns by the authors of the 2000 and 2006 Cooperative Congressional Election Study (CCES).

In North Dakota and Wisconsin, we consider that the 2002 and 2006 elections were significantly more significant than turnover in 2000 (non-ANOVA results similar). In 2002, we estimated the relationship between voter-ID laws and turnover using multilevel logistic regression of turnout (0/1 = did not vote). The model included state and individual data (i.e., the random factor), and voter-ID law as the predictor. When the voter-ID law variable is treated as ordinal (β = 0.05, SE = 0.04, n.s.) the results show a non-significant relationship, and when it is treated as a binary variable (β = 0.35, SE = 0.18, n.s.) the result is a negative coefficient, but it is not statistically significant. In both cases, states with strict voter-ID requirements did not significantly reduce the probability of individual-level turnout.

**Multivariate Results**

Having shown state voting requirement laws have no significant effect on state-level turnout, we turn to more rigorous analyses to illustrate the factors that should matter. To save space in the symposium, we do not report the large table containing the results of a random effects model with maximum likelihood estimation clustering on state. Our analysis begins by accounting for demographic variables and time. These variables have been shown to be consistent predictors of turnout in the voting behavior literature. Population measures the size of each state's voting age population as measured by the Census.** Percent Black and percent Hispanic measure the percentage of each state's citizens who are black and Hispanic, respectively. We also control for states in the South and those that are associated with black and Hispanic, respectively.
in southern states percentages of black voters. Percent college is a variable indicating the percentage of college graduates in each state and percent urban indicates the percentage of citizens living in urban areas. This basic model does a good job of explaining aggregate turnout with statewide turnout as the dependent variable. The results of the baseline model are consistent with the expectations established in the turnout literature with the variables accounting for race, education, and the South reaching statistical significance. The dummy variables for election year indicate that as expected, turnout was statistically higher in presidential election years (2000 and 2004). In our second and third models we added two different measures of identification requirements, the Guttman scale variable ID requirement and a dummy variable Photo ID respectively. Neither ID requirement nor Photo ID reached statistical significance.

In the final two iterations of the aggregate model we included legal and political control variables. First we controlled for three legal factors: voter-ID requirements (ID requirement), the number of days between each state’s voter-registration deadline and Election Day (days), and a dichotomous variable indicating whether a state’s election laws changed with respect to voter ID since the previous election (requirement change). If voter-ID laws depressed turnout, they would be most likely to do so during the first election following a change in the requirements. We controlled for election-specific characteristics that could affect turnout. Senate race and gubernatorial race are dichotomous variables indicating whether there was a Senate or gubernatorial race in a state during an election year. Spending measures the total amount of spending in 2004 dollars by federal candidates in each year as reported by candidates to the Federal Election Commission.

We also controlled for social issues through a variable that indicates the number of social issues (abortion, same-sex marriage, or stem cell research) that were on the ballot in a state during each election. Among these variables only the number of social issues on the ballot (in both models) and federal campaign spending (in the photo-ID model) were statistically significant. The aggregate turnout results reveal no significant relationship between aggregate turnout and voter-ID laws, but many statistically significant relationships among political and demographic factors.

At the individual level there is a similar story. Our self-reported turnout analyses contain socio-demographics (e.g., sex, race, age, region, and socioeconomic status), political affiliation (i.e., party identification), and a 3-point ordinal measure of political interest (1—not interested to 3—very much interested). By controlling for political interest we tested an alternative hypothesis to the theoretical effects of voter-ID laws proffered by Alvarez, Bailey, and Katz (2007) and Vercellotti and Anderson (2006). Even if voter-ID laws do have pronounced empirical effects, once political interest is taken into account, the laws should not matter at all because once the motivation to participate is held constant there is little theoretical reason to believe voter-ID laws would dampen one’s desire to vote. Similar to our aggregate analysis, we estimated five models: the first examining demographic factors, the next two examining the effects of demographic factors, the next two examining the effects of voter-ID law and a photo-ID requirement controlling for political interest. Table 2 reports the results of mixed-model logistic regressions using states as a random factor variable, and shows that voter-identification laws—stringency and photo-ID required or not—have no statistically significant effects on self-reported turnout. However, political interest has both strong and significant effects. All five models essentially show statistically significant effects of basic demographic variables, but they also show how factors such as race and age can play an important role in voting behavior. Neither voter-ID law stringency (Model 2) nor photo-ID requirement (Model 3) produced statistically significant effects at the threshold 95% confidence level, nor did they contribute to the explanatory power of the regression model (as indicated by the change in -2LL model fit values), especially when political-interest levels are considered. Of the 10 variables in each of the last two models, political interest has the strongest and most stable effects suggesting that political motivations trump ID requirements.

**DISCUSSION AND CONCLUSION**

We are highly sensitive to those who are improperly and unjustifiably denied their right to vote; however, there is limited available data on the incidence of actual exclusion from voting due to the lack of proper identification. This is not to say that actually requiring a more strict form of identification is not on its face discriminatory; it is, and the laws deserve to be scrutinized. But, our question is whether these laws have significantly reduced turnout. Based on our analysis, they have not.

In the CCES, respondents answered questions about whether they were asked to show identification and if they were prevented from voting because of a problem with identification. Ansara (2007) used this data to demonstrate that exclusions from voting are exceptionally rare. Twenty-two respondents out of the 36,445 person sample said voter-ID requirements prevented them from voting. Ansara (2007) reports no more than 0.2% of potential voters claimed to have been excluded from voting due to ID requirements, and with no clear demographic pattern among them, there is very little empirical basis to raise the alarm over the implementation of identification requirements. As Ansara (2007) explains, "one would need a survey more than 20 times as large as this one to begin to gauge who was excluded and why. It is just that rare of a phenomenon." Indeed, when non-voters in the Current Population Surveys (CPS) from 2000 to 2006 were asked why they did not vote, a lack of interest in politics was given as a reason twice as often as registration problems (which include a variety of issues, many of which are unrelated to having a photo ID at the polls on Election Day). Indeed, according to the CPS, even in states where photo IDs are required, 11.7% of non-voters claim that a lack of interest kept them home in 2006 while 6.3% cited general registration problems. General registration problems could include voters turned away due to a lack of identification but also includes voters who had moved without reregistering, felons, and a litany of other special cases. More telling was that one-third of 2006
Table 2: Multi-level Model for Binary Outcomes Regression Coefficients Predicting Individual-Level Turnout

<table>
<thead>
<tr>
<th>Model</th>
<th>B(SE)</th>
<th>Model 2</th>
<th>B(SE)</th>
<th>Model 3</th>
<th>B(SE)</th>
<th>Model 4</th>
<th>B(SE)</th>
<th>Model 5</th>
<th>B(SE)</th>
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</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.4 (0.04)**</td>
<td>1.4 (0.04)**</td>
<td>1.4 (0.05)**</td>
<td>2.9 (0.08)**</td>
<td>2.8 (0.09)**</td>
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<tr>
<td>Age (years)</td>
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<td>0.02 (0.00)**</td>
<td>0.02 (0.00)**</td>
<td>0.02 (0.00)**</td>
<td>0.02 (0.00)**</td>
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<tr>
<td>Sex (Male = 1)</td>
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<td>0.20 (0.04)**</td>
<td>0.20 (0.04)**</td>
<td>0.20 (0.04)**</td>
<td>0.20 (0.04)**</td>
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<td>Other Race</td>
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<td>Black</td>
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<tr>
<td>Household Income</td>
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<td>0.03 (0.03)**</td>
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<td>0.03 (0.03)**</td>
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<tr>
<td>Republican</td>
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<td>0.03 (0.03)**</td>
<td>0.03 (0.03)**</td>
<td>0.03 (0.03)**</td>
<td>0.03 (0.03)**</td>
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<tr>
<td>State ID Law Status (Strongest)</td>
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<td>0.02 (0.04)</td>
<td>0.02 (0.04)</td>
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<td>State ID Law—Photo ID required</td>
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<td>Initial</td>
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<tr>
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</tbody>
</table>

Note: Analyses are based on unweighted Census data; 2005-2006; N = 7,906; **p < .01

CFS respondents from Indiana said they did not vote because they were "too busy," which can arguably be interpreted to mean they were less interested in midterm elections after all they did respond to the CFS.

As every level of analysis, and with multiple forms of data, we have consistently demonstrated that voter-identification laws appear to be a much smaller piece to the voting behavior puzzle than are factors such as the kinds of issues on a state ballot, the competitiveness of campaigns, the institutional structures of a particular election, socioeconomic factors, and individual-level motivational factors such as interest in politics. This is not to say that the rules of voting are unimportant or that there is no potential for disenfranchisement; rather, our findings suggest that voter-ID laws have had no systematic effect on turnout thus far, and that some rules (voter-ID laws) do not affect turnout as much as others (same-day registration in Minnesota, a state with historically high turnout).

While voter-ID laws appear to have little to no causal effects on turnout (see Alvarez, Bailey, and Katz 2007), our central argument is that other individual-level motivations such as interest in politics (Berinsky 2009), types of elections (Gronek, Galenas-Rosenbaum, and Miller 2007), and social issues (Tolbert, Grimmel, and Smith 2001) would mediate any impacts related to ID rules. While strict ID requirements have the potential to burden some members of the electorate, our analyses suggest that these numbers are small. What's more, actions taken by state governments, interest groups, and political parties are likely strong enough to induce those who are interested in voting, but have no more strict form of ID, to take action to ensure their vote is heard. This form of political resilience is the type we expect, and have seen from racial minorities, women, and other oppressed groups in America's history.

Until there is systematic, empirical evidence of discrimination in the administration or availability of required forms of identification, there is little reason to suspect voter-identification laws will significantly affect turnout. Thus, we fail to reject the null hypothesis that voter-ID laws do not significantly affect turnout. While all state-level voting laws should be heavily scrutinized as efforts to stop voter disenfranchisement are paramount, it is time we give some credit to the electorate and as Berinsky (2009) suggests, spend more time searching for ways to increase citizens' interest in politics.

NOTES

1. Barreto, Nold, and Sanchez (2009) report that educated, upper-income whites in Indiana are more likely to have a valid ID, suggesting that Indiana’s voter-ID law disenfranchises legal voting; however, their analysis does not attempt to explain voter turnout in Indiana and therefore does not ask respondents about interest in voting or about voting. One can however reasonably conclude that those without Identification will be less likely to vote.

2. Reconciling anecdotal evidence of voter disenfranchisement with more systematic analysis is a difficult task. To do so we would need reliable.
large-scale exit polling data with a special emphasis on including those who were turned away at the polls.

3. Little work has been done with respect to voter-identification laws, but several have debated the effectiveness of legislation on turnout for decades. Tatum writes significantly across different socio-demographic groups (Wellinger and Rosenstone 1995, Rosenstone and Hansen 1993). Wellinger and Rosenstone (2008) suggest that in states with restrictive registration laws those with lower levels of education and lower levels of education vote less than those who have higher education levels. Nagler (1995) finds that restrictive voter-registration laws have no effect on turnout.

4. Brady, Verba, and Schmalzle (1983) argue that education’s effect on voting is “tunnelled through political interest” (158).

5. There is no available data with respect to whether the 25,000 (0.4% of the voting-age population in Indiana) people per second a full photo ID were registered voters who voted in previous elections (when a photo ID was not required) but would have been prevented from voting under the new law. Without a public-policy survey oversampling those who have acquired a full photo ID, we cannot know the impact of the secretory of state’s effort to help interested voters acquire the appropriate ID to be able to cast a ballot.

6. In addition, voter-identification law had exceptions for certain citizens born outside of a hospital with no birth certificate issued, the illiterate, those with religious objections to being photographed, and those living in state-licensed facilities that also serve as a polling place.

7. The CCES was conducted by Polimetrics in the week after the 2008 election. We used the CCES because of its large sample size (n = 16,442), and the inclusion of political variables that we believe will help explain turnout.

8. We coded state voter-identification laws based on our reading of state election law and in consultation with state secretaries of state. At the law and end of the scale, a 1 represents the standard of a voter stating his or her name to establish identity. A 2 increases to include a signature on the polling place. A 3 represents a requirement that a voter present a form of identification that does not include a picture. A 4 is coded as a standard that requires a photo identification. The final level, a 5 includes the strictest requirement of presenting a valid, state-issued, photo identification with an expiration date—a standard not only in Indiana. We add the sixth category because the requirements in Indiana are more burdensome than other states’ photo-identification requirements. For further elaboration see Brady, Wagner, and Wilson (2012).

9. For those interested in examining the table, containing the results of the five models described in these pages, contact the authors at nyuofflawed@edu. “The analysis includes 277 observations as turnout data were not available for North Dakota in 2000 or for Wisconsin in 2000 and 2004.”

10. We also estimated the model with registered voters instead of population size; the results were equivalent.

11. The Photo ID variable added levels five and six on our scale together yielding two levels that required a photo ID.

12. We collected the number of days between the registration deadlines and Election Day from state laws. The change in election law variable is a dichotomous indicator based on our identification requirements variables.


14. We collected ballot initiative data using information from the National Conference of State Legislatures (http://www.ncsl.org/index.htm).

15. If, for example, photo identification was the standard nationwide, and we extrapolated from the survey data, then 6.4% of the 152 million who voted in 2004 would equate to approximately 9,500 voters nationwide, or about 5,000 voters per state.

REFERENCES


Carrington's County Board of Elections. 2008. 2008 200-U.S.


126 PS • January 2009
EXHIBIT 14
Modeling Problems in the Voter Identification—Voter Turnout Debate

Robert S. Erikson and Lorraine C. Minnite

In April 2008, the U.S. Supreme Court upheld Indiana’s controversial voter identification (ID) law. Adopted in 2005, the law requires voters to show a current, government-issued photo identification. Opponents worry voter identification rules will place an undue burden on the voting rights of elderly, low income, and minority voters, disputing the need for the rules. Nevertheless, over the last five years, stricter voter identification requirements have been adopted on party line votes in more than a dozen states. Stimulated by the pressing policy debate, recent scientific research on the turnout question suggests that the most stringent rules will have harmful effects. However, the complexity of electoral laws and voting behavior together with the likely marginal effect of photo ID rules makes statistical outcomes quite sensitive to research designs. We see problems with existing designs that rely on individual, self-reported voting records from the Current Population Survey. Our article evaluates this research and disputes the strength of the statistical arguments used to support findings of an observable negative effect on turnout from voter ID laws. Alternatively, we adjust the models using state samples and difference-in-differences techniques and reanalyze the CPS data for the 2002 and 2006 midterm elections. While we do not conclude that voter ID rules have no effect on turnout, our data and tools are not up to the task of making a compelling statistical argument for an effect.

INTRODUCTION

In a widely reported story from the 2008 presidential primary in Indiana, twelve elderly nuns were turned away from their resident convent polling place by a fellow sister because they failed to comply with the state’s new voter identification rules (Hastings 2008a; 2008b; Gordon 2008; Martelle 2008). The week before, the Supreme Court had upheld Indiana’s controversial law which compels citizens to show a current government-issued photo ID in order to vote.1 As voter registration surged in anticipation of a hotly contested primary (Jacobs and Burris 2008; “Voter Registration Numbers” 2008), voting rights advocates worried that new or vulnerable voters would not be able to vote because of failure to present the appropriate ID. In the end, however, despite record turnout, there were few official reports of vote denial in Indiana (Indiana Secretary of State 2008), leading defenders of stricter voter ID laws to feel vindicated (Hastings 2008c). Important questions, however, remain. They arise from concerns like those expressed by the (Muncie, IN) Star Press three days after the primary:

While only 20 provisional ballots were cast in Tuesday’s election—and not all of

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1 Crawford v. Marion County Election Board, 128 S.Ct. 1610 (2008).
them because of a lack of ID—it is unknown how many were turned away from the polls by inexperienced [poll] workers, but there is anecdotal evidence it happened. [One disabled] veteran, for example, wasn’t given a provisional ballot in Precinct 23 until a mob of voters outside demanded it, going so far as to ask a Democratic party official to come to the polling place. ("Indiana Voter ID Law Disenfranchised Some” 2008)

Our vignette from the Hoosier State presents a puzzle for courts that may hear future voter ID disputes and for the social science upon which lawyers, judges, and advocates in voting rights cases often rely. Do voter ID laws deter voting? Do the data and instruments we have allow us to detect marginal influences on voting stemming from a single voting rule? Courts need to know in order to better evaluate the nature of the burden the rules may impose on the right to vote.

The problem is the silence in the available data. Until the current controversy, there was little scientific analysis of the relationship between documentary ID rules and voting, and for good reason: six years ago only 11 states required all voters to present documentary proof of their identity at the polls before casting a ballot (Electionline.org 2006). That number has since more than doubled to 24 (Project Vote 2007). At the same time, while these laws are rhetorically defended as anti-fraud, voter confidence, “good government” reforms, none of the legislative sponsors of voter ID bills have made any credible showing of voter fraud to justify the need for more ballot security.

We could generously conclude that politicians have tightened voter ID laws on the faith that they are, as Indiana elections officials put it, only “a party-neutral, good-government reform . . .” (Brief of State Respondents 2007, 37). But the politics surrounding the statehouse suggests over the voter ID issue suggest something else. Politicians clearly see this issue through the lens of party politics and electoral advantage. Few other issues are as politically polarizing. For example, 95.3 percent of 1,222 Republican legislators but just 2.1 percent of 796 Democrats voting on ten voter ID bills introduced by Republican state legislators between 2005 and 2007 supported them. (Brief of Amici Curiae 2007, 28). Given the long history of partisan maneuvering to win elections by excluding certain voters under the guise of “good government” reform (Kousser 1974; Piven and Cloward 2000), the effects of voter ID laws on voting deserve serious scientific scrutiny. In the absence of evidence, the perception of a party advantage in tightening up voter ID requirements is driving the debate.

Are the data and instruments we have up to the task of finding what may be a needle—e.g., 12 elderly nuns in South Bend, Indiana—in a haystack? Researchers analyzing whether voter ID laws influence turnout have approached the question in three ways. Several studies construct statistical models to test for relationships between the degree of burden imposed by voter ID requirements and voter turnout levels, looking for any disproportionate effects among different groups of voters (Lott 2006; Eagleton Institute 2006; Vercellotti and Anderson 2006; Mulhausen and Sikich 2007; Mycok, Wagner and Wilson 2007; Alvarez, Bailey and Katz 2008; Milyo 2007; Logan and Darrah 2008). Others conduct surveys or match government lists to estimate the proportion of the electorate lacking the requisite ID and to examine whether patterns in the possession of ID vary among groups (Brace 2005; Pawasarat 2005; Brennan Center 2006; Barreto, Nuño and Sanchez 2007a; 2007b; Hood and Bullock 2008). A third approach, using survey data to assess attitudes among voters toward stricter voter ID, tests two different assumptions. One concerns the strength of public support for voter ID as a rationale supporting these laws (finding high levels of support, generally; see, for example, Pastor, et al. 2008). The other frames voter ID laws as at least a partial remedy for a lack of confidence in electoral administration, hypothesizing that as public confidence increases so, too, will turnout (finding little support linking perceptions about the frequency of

2 For findings strongly suggesting that incidents of voter fraud are rare in American elections today, see Minnite and Callahan (2003) and Minnite (2007a; 2007b).
voter fraud to a lack of confidence in electoral administration, or to turnout; see Ansolabehere and Persily 2008).

THE CURRENT POPULATION SURVEYS AND ESTIMATING THE EFFECTS OF VOTER IDENTIFICATION LAW

Our article is concerned with the first approach to the question of voter ID laws and turnout effects, specifically with statistical models using Current Population Survey (CPS) data to measure turnout. Given the wealth of information it provides regarding voter participation, the best data source would seem to be the U.S. Census's post-election turnout surveys—the Current Population Survey's Voter Supplements collected every other November. Approximately two weeks after a national election, CPS respondents are asked whether they voted and, if not, whether they are registered. Even when limited to respondents who claim to be registered, the CPS provides tens of thousands of survey responses to work with every two years.

At least three influential (though unpublished) studies have examined potential vote suppression using CPS data (Vercellotti and Anderson 2006; Muhlhause and Sikich 2007; Alvarez, Bailey, and Katz 2008). In each case the authors conducted multivariate probit or logit analyses of voting amongst registrants as a function of a host of relevant individual characteristics plus a measure of the state laws governing voter identification. The results are somewhat contradictory.

One study, commissioned by the U.S. Elections Assistance Commission (EAC), was performed by the Eagleton Institute of Politics at Rutgers University and the Moritz College of Law at Ohio State University (Eagleton Institute of Politics 2006; Vercellotti and Anderson 2006). Vercellotti and Anderson explored statistical relationships between the stringency of voter ID laws and turnout in the 2004 presidential election. Controlling for demographic variables (i.e., age, race, education, and income) and political context (i.e., a competitive election), factors known to influence voter turnout, the authors found seemingly compelling statistical evidence of a negative causal relationship between the stringency of a state's voter ID requirements and voter turnout, with the greatest suppressive effect among racial minorities, especially Latinos. Vercellotti and Anderson's findings were challenged, however, in a paper by Muhlhause and Sikich (2007) of the Heritage Foundation. Once Muhlhause and Sikich made what they contend are corrections and improvements to the models, the statistical significance of the negative relationship found by Vercellotti and Anderson between ID stringency and turnout in the individual level data largely disappeared.

Alvarez, Bailey, and Katz (2008) offer the most statistically sophisticated treatment of the voter ID-voter turnout modeling problem to date, employing a Bayesian multi-level model to examine turnout in the CPS individual-level data for the four federal elections held between 2000 and 2006. They make useful refinements to the measurement of state voter ID laws, generating an eight-level index of severity. As with Vercellotti and Anderson, they find statistical evidence of a slight relationship between the restrictiveness of voter identification laws and turnout. However they do not find the effects to be strongest among racial minorities.

These papers' findings are sometimes inconsistent, not only across studies but also (sometimes) within the same study. Given the limited size of the effects that are searched for, small changes in choices such as how to measure the independent variables and which controls to impose can alter the conclusions. We therefore address in this article some fundamental issues of research design and statistical inference. Initially, we question whether cross-sectional analysis of CPS data (e.g., of the 2004 election only) is appropriate. Suppose, for instance, that unmeasured causes of state turnout levels (e.g., "culture") affect the states' propensity to pass severe voter identification laws to even a slight degree. This causal process could distort the evidence regarding the small effect, if any, of identification laws on turnout.

This problem is compounded by possible pitfalls in the interpretation of a multilevel model involving state-level causal variables and individual data. While controlling for individual-level variables helps achieve statistical precl-
sion, it is also necessary to statistically treat the independent variable of interest or treatment effect—state voter identification policy—as an aggregate state-level variable. This means that when reporting coefficients involving voter identification laws, the studies should report clustered standard errors. The problem is that the large $N$ of over 64,000 cases (in the 2004 analysis) provides the illusion of more statistical power than is present. Although the individual-level variables provide some controls, with only 50 states plus D.C., the effective $N$ for calculating standard errors from the individual-level data is merely 51. Only if it were possible to control for all state-level variables affecting voter turnout would clustering cease to be a problem.

Despite frequent discussion in the econometric and statistical literature (e.g., Moulton 1986, 1990; Wooldridge 2003; Donald and Lang 2007), the need to impose clustered standard errors is not always appreciated by practitioners. (For a political science example applied to state legislation, see Branton 2004, and Primo, Jacobsmeier, and Milyo 2007; for an accessible general discussion of clustered standard errors, see Rogers 1993.) Failing to impose clustered standard errors results in the reporting of false positives—findings reported as statistically significant when the proper (larger) standard error would show that they are not. When trying to find small effects of voter identification laws in the states using the CPS Voter Supplement survey data, the danger is that the presence of thousands of individual data points offers a false sense of certainty.

None of the three voter ID studies cited above reports the appropriate clustered standard errors. Both the Vercellotti and Anderson and the Muhlhausen and Sikich studies report using “robust” standard errors. But (as we will show below) this does not properly address the problem at hand. The Alvarez et al. method for reporting their confidence intervals is not fully transparent from their report. Clearly, however, the standard errors reported for state-level variables are smaller than is appropriate. We know this because the reported standard errors (or confidence intervals) are equally small (if not smaller) for dichotomous state-level variables as they are for individual-level dichotomous variables. This should not be. The effective $N$ for state level variables is 51. For individuals, the effective $N$ is in the tens of thousands.

THE CHALLENGE

We return to the questions at hand. Do voter ID laws suppress turnout? Is their effect particularly severe among certain disadvantaged groups whose erasure from the electorate could tilt the partisan outcome? As social scientists can we document the effect from analyzing the usual turnout data, such as from the CPS?

Let us accept, at least for heuristic purposes, the first two claims, while stipulating that the effects must be small, consistent with some of the research reviewed above. For the sake of argument let us pull some numbers out of the hat as generous conjectures about the short-term effects of a draconian voter ID law. First, assume that when a state goes from no ID required to the demand for a government-issued photo ID, the requirement prevents two percent of the registered electorate from voting. Of this two percent, three out of four would have voted if allowed, which (we assume) is the same rate as those with the required photo IDs. Thus, of the original electorate, 98 percent show up to vote displaying their IDs, while two percent either are intimidated by the law to stay home or are refused when they show up at the polls. Let us also assume that if they could vote, our newly disenfranchised voters would split one-sidedly as 80 percent Democratic versus 20 percent Republican. Before disfranchisement, our missing two percent would add .02 x .80 to the Democratic vote or .016. This is .06 above what they would have contributed if they split a neutral 50–50. Now, if, say, the 98 percent with their photo IDs split as evenly as 49.5 percent Democratic and 50.5 percent Republican, our missing voters could make the difference if they voted (.98 x .495) + (.02 x 80) = .4851 + .016 = .5011.

If these numbers are approximations of what politicians believe, then on partisan grounds alone, the battle is worth waging. (In effect, our hypothetical numbers would mean that the decisive partisan threshold for the Democratic
party goes from 50 percent to 50.5 percent of the two-party vote.) Given our fake numbers, many would see a normative imperative as well, with facilitation of the exercise of the right to vote outweighing the possible phantom of voter fraud.

But our question here is different. If two percent of the eligible electorate go missing due to voter-ID disfranchisement, are our instruments truly capable of detecting it? In asking this question we must be wary not only of false negatives (as when researchers claim they find evidence that ID laws have no effect) but also of false positives (as when researchers claim they find convincing evidence that voter ID laws do matter).

Here, we analyze the CPS data, using the basic technique of difference-in-differences, in which we ask whether the change from 2002 to 2006 in our dependent variable (turnout among registered voters) varies as a function of the change in our treatment variable (the presence or absence of new voter ID laws enacted between the 2002 and 2006 elections). For possible controls we have the characteristics of the individual voters in the CPS survey. For units, the appropriate level is the set of 50 states plus the District of Columbia. Thus, while using a survey with multiple thousands of respondents, we collapse the data into 51 large state samples.

We do not claim that our methodology is the only one worthy for this task or even the best. But it does illustrate how the task of estimating the effects of voter ID laws is truly daunting. The handicaps are obvious. We start with the expectation that any effect is small as we search for a possible missing two percent of the registered electorate. And even though we can observe treatments in the form of new voter ID laws enacted between 2002 and 2006, these are mostly mild innovations, usually falling short of requiring photo IDs. Therefore, the expected effect is even smaller. In addition, we have the handicaps that come with working with voter surveys. Although this tendency may be minimal in the context of the non-political CPS survey, people do lie to pollsters, exaggerating their voting histories. Perhaps the biggest hurdle of all, we must ask whether the undocumented voters who are otherwise eligible and registered are fully represented in even well-run Census surveys.

Finally, despite the fact that CPS surveys include thousands of respondents, the effective quantity of cases is not the number of survey respondents but the number of states that generate the treatments by changing or not changing their voter ID policies. This is a central lesson of this article. Now, having listed the arguments against finding anything, let us turn to the data.

RESEARCH DESIGN

We estimate the possible effects of voter ID laws by means of a difference-in-differences test applied to 2002 and 2006 voter participation data. Difference-in-differences analysis simply is the current econometric term for comparing the degree of change for different treatment groups (Bertrand, Duflo, and Mullainathan, 2004). Some will recognize the method as Campbell and Stanley's (1966) "non-equivalent control group design." Specifically, with states as the units, we ask: did state-level voter participation change between these two midterm elections as a result of changes in the states’ voter ID legislation? The idea is simple. The independent variable is change in legislation between the two elections. The dependent variable is change in voter participation among registered voters between the same two elections. If voter ID laws suppress turnout, the relationship should be negative: increased voter ID requirements should be associated with lower voting rates.

Especially in a non-experimental setting, it is helpful to control for additional sources of variation in the dependent variable. The more controls, the less the concern about spurious relationships. And the more the extraneous sources of variance are controlled, the more similar are the treatment groups apart from the independent variable of interest. Limiting the unexplained variance enhances the statistical power of the comparisons across treatment groups. With group level treatments, it is important to take into account the clustering of the group level effects. Although the likelihood of finding a statistically significant result is greater
when there is a large number of "degrees of freedom," the appropriate degrees of freedom for estimating the standard error of the group treatment effect is the number of groups, not the number of subjects (e.g., potential voters) across groups. At the same time, gains can be made by controlling for individual characteristics (such as the demographic traits of CPS respondents).3

Our goal is to tell a cautionary tale, illustrating the limitations of our statistical enterprise. We believe our method of statistical modeling is subject to little bias and approaches the limit in how much information can be reliably wrung from the data. Nevertheless, the errors in our estimates are inherently large, so that the search for small effects of voter registration legislation must be inconclusive. It follows that one cannot yet say much about the effect of voter ID laws from studying voting participation data in the states.

Our study measures voter participation in 2002 and 2006 as the participation rate of registered voters among each state’s sample in the CPS November Voting and Registration Supplements. With over 64,000 registered voters in each survey, the CPS provides state estimates based on more than 1,000 respondents per state. We use the CPS rather than official turnout numbers because of concerns about uneven purging of the registration rolls in the state. Whereas turnout as a percentage of the theoretically eligible is readily available from official sources at the state level (subject to some concerns about who should be included in the eligible voter denominator), the turnout rate as a function of official registration figures is more problematic.

A second reason for using the CPS is that the CPS survey offers controls for some individual characteristics of state electorates. Vercellotti and Anderson (2006), Muhlhausen and Sikich (2007), and Alvarez et al. (2008), model respondents as the unit; we see states as the proper unit, while still using individual-level analysis to adjust state estimates.

Our measure of legislation is the ordering of eight types of requirements for voting at the polls. Borrowed from Alvarez et al. (2008), these are, in order of increasing stringency:

0. Voter must state his/her name
1. Voter must sign his/her name in a poll book
2. Voter must sign his/her name in a poll book and it must match a signature on file
3. Voter is requested to present proof of ID or voter registration card
4. Voter must present proof of ID or voter registration card
5. Voter must present proof of ID and his/her signature must match the signature on the ID provided
6. Voter is requested to present photo ID
7. Voter is required to present photo ID.

There are further variations, and some increments may be more severe than others. Only two states had gone to level 7 by 2006. One, Indiana, required a government-issued photo ID while the other, Florida, was less strict about the source. In our analysis we measure change either as the net change in the numerical value (0−7) or the presence or absence of an increase in severity. When perusing details of the data, we keep a special eye on the two "7" states, Florida and Indiana.

The setup then is a bivariate analysis for 50 state observations. We perform OLS regression equations where the dependent variable is change in turnout. The independent variable is the change in voter identification legislation, either as the change score on the 0−7 scale or the presence or absence of change.

The main measure of voter participation is the observed voting rate among CPS registrants. We supplement this with an adjusted (residual) rate as the mean state rate controlling for a set of individual-level characteristics of the respondent—age, education, income, race, gender, and marital status. These controls (constructed similarly but not exactly as here) play a central role in Alvarez et al.’s (2008) individual-level analysis. Our state-level dataset is displayed in the Appendix.

As a baseline for turnout levels we use the set of individual-level logit equations shown in the first set of columns of Table 1 (labeled

TABLE 1. CROSS-SECTIONAL LOGIT EQUATIONS PREDICTING VOTING AMONG REGISTERED VOTERS IN CPS SURVEYS, 2002 AND 2006

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*Income is measured as the income intervals in the CPS codebook.
McKelvey-Zavoina Pseudo-R² is the estimated ratio of the explained variance (of the prediction equation) to the variance of the underlying latent dependent variable.

"Without Voter ID Laws"). Each respondent obtains a predicted turnout probability based on these equations. The adjusted state turnout level (or residual) then is the deviation of the observed turnout in the state sample from that predicted by demographic characteristics.

Our motivation for the individual-level controls is not so much that individual characteristics are a source of spurious relationship. That is, we assume that any change in individual-level motivation to vote between the two elections will be roughly constant across demographic categories and unrelated to state changes in voter identification laws. Rather, the chief advantage of constructing the residual turnout rate is to ensure as much as possible that the observed change in state turnout (among registrants) is a function of state-level factors alone and not 2002 to 2006 differences in the demographic composition of the CPS's sampling of the states. The state residual turnout levels for 2002 and 2006 differ consid-
erably because states differ in their turnout levels apart from their demographic composition. Our task would be simplified if state-level changes in turnout were uniform across states apart from those caused by changes in voter identification laws. In actuality, state voting rates change from one election to the next for a variety of reasons. Such changes increase the size of the disturbance term in the regression equation we use to predict residual turnout change caused by change in the voter identification law.

Because certain types of individuals may be particularly inhibited by voter identification laws, we also performed subgroup analysis. We analyzed observed and demography-adjusted turnout levels for three subgroups: college educated with B.A. degrees or higher (who presumably are little affected), those with no more than a high school diploma, and grade school educated without a high school degree (who presumably are most subject to any deterrent effects of voter ID legislation). We also separately analyze respondents scoring low on a multi-item index of presumed vulnerability based on demographic characteristics (details not shown).

A WRONG PATH

We could have proceeded, misguided, by pursuing a cross-sectional analysis. We might even have been tempted into using our 64,000-plus respondents as our units rather than our 51 states. It is worthwhile considering how we would have been led astray.

Consider again the individual-level equations of Table 1. The second set of coefficients for each year (labeled "With Voter ID Laws") adds year-specific state scores on the 0–7 index of voter ID legislation to supplement the existing variables. For both 2002 and 2006, the coefficient for voter identification laws is negative, as theory would suggest. Unadjusted, the standard errors for net change in legislation produce absolute t-values of greater than 6. In other words voter ID legislation is a "significant" negative predictor of turnout at better than the .001 confidence level. But even apart from important and obvious endogeneity concerns that arise (does the negative coefficient arise because states with less participatory cultures pass strict laws?), we must recognize that the reported significance level assumes the relevant degrees of freedom based on 64,000-plus individuals rather than based on a modest set of 51 states. Table 1 shows that if we employ "robust" standard errors, as do Vercellotti and Anderson (2006) and Mulhausen and Sikkil (2007), we produce slightly more conservative estimates of significance for voter identification laws. But the robust standard errors correct only for heteroskedasticity, which is not the main problem. The whole approach, even with robust standard errors, is the wrong solution for dealing with our state-level policy variable, as the standard errors are still seriously deflated compared to what they should be. Table 1 also reports a third version of the standard errors, clustered by states, that corrects the problem. The result is that individual-level standard errors take into account within-state variance. More relevantly, the standard error for the clustered variable (voter ID laws) is now based on the number of states, not respondents. With the standard error for laws now expanded by a factor of about 7, we see that state laws are not close to statistically significant. The clustered standard errors are barely larger than the coefficients themselves.4

The intuition for this result may not be immediately obvious. If state turnout levels varied almost entirely based on the changes in voter ID requirements (plus the individual characteristics in the equation), there would be no problem. But of course that is not the case. Aggregated to the state level, the correlation between the predicted vote (from individual characteristics plus voter ID law) and the actual vote is a mere .39 for 2002 and .38 for 2006. States vary in their rate of voting participation

4 There are a few minor observations from Table 1 worth noting: almost always, the individual characteristics pass the usual threshold of statistical significance, as their t-ratio of coefficient to standard error generally exceeds 1.96. Gender and to a lesser extent, race, are the exceptions. We also note that adding state laws to the equations adds only minimally to the underlying explained variance. This should be no surprise. And the coefficients for the individual-level variables are virtually unaffected by adding state laws. This too should not be a surprise.
largely for reasons that are unmeasured by demographic variables in the Current Population Survey.  

DIFRENCE IN DIFFERENCES

Working with change over time alleviates the endogeneity problem. Presumably states do not rapidly change their culture of participation because of a change in the law or for other reasons. Potentially, working with change also increases the efficiency of the estimates. The reason is that although states vary in their un-modeled influences on turnout, they presumably vary little in their change in un-modeled influences on turnout. High-turnout states in 2002, for instance presumably are high-turnout states in 2006. By this reasoning, there should be less unexplained variance when modeling change in the vote over time rather than cross-sectional turnout. At the same time, since turnout estimates contain sampling error, this source of error will double when examining change scores.  

The dependent variables for the difference-in-differences analysis are the change in the turnout rate between 2002 and 2006 among the entirety of states' registered voters, as well as among more demographically select groups. We analyze state change both ignoring and controlling for the effects of demography on turnout within the state CPS sample. The variances of the various potential dependent variables are shown in Table 2. Change scores have less variance, but only slightly so, than levels of turnout. Adjusting the state samples for sample demography also offers a slight reduction of the variance to be explained. The less the variance, the less the uncontrolled variance to be explained.  

Still, the gains from the lesser variance turn out to be slight. One might be surprised that adjusting for individual characteristics of the state samples contributes so little. After all, the usual suspects—age, education, income, race, gender, marital status—all matter at the individual level. But many of them, especially gender, marital status, and age, only vary marginally at best when accounting for state-to-state differences.  

Table 3 presents the coefficients and standard errors for the effect of change in voter ID legislation utilizing the difference-in-differences analysis. Change is measured two ways, as net change in the state score, 2002-2006, and dichotomously as the presence or absence of any increase in severity. The results are shown for all voters plus three segments based on education. Results are presented with and without the adjustment for sample demographics. Some of the results are displayed graphically in Figures 1-6. In appearance, these graphs support the hypothesis of a depressing effect on turnout. They show scatterplots overlaid with regression lines. Figures 1 and 2 show the pattern when generalizing to all registered voters. We see that whether using observed (Fig. 1) or adjusted (Fig. 2) turnout estimates, as a state shifts from low to high scores on the voter ID law scale, expected turnout declines by about two percent. This pattern is in the range one might expect and seemingly supports the suppression hypothesis.  

The problem, however, is that these estimates are decidedly not significant. None of the estimates for all voters or even for the "target" non-high school educated group is close to being statistically significant. The rough pattern is that as laws become severe turnout declines at about the modest magnitude one might expect. The significance levels (in the .50 range)  

5 The clustered standard error adjusts for the clustering of the dependent variable at the state-level as well as shifting the relevant N from the number of individuals to the number of states. The standard error for voter identification laws approximates the standard deviation for the aggregate equation where the state-level mean log of the odds of voting is accounted for by the score of the voter identification law.  
6 The sampling variance of a difference between two independent samples (e.g., states in 2002 and 2006) will equal the addition of the sampling variance for each sample separately.  
7 The cross-sectional variance represents sampling variance plus true variance in state effects. The over-time (2002 to 2006) variance represents the doubled sampling variance (see note 6) plus the variance of any state-level effects.  
8 The state samples are sufficiently large that adjusting for demographic characteristics of the state samples (analogous to pollsters post-stratifying their samples by demography) offers little improvement to the state voting rate estimates. For these reasons the gain from residualizing is modest.
Table 2. Standard Deviations of State Voting Rates from CPS Surveys

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N = 51 (states plus D.C.)

*No High School degree.

^The standard deviations equal the standard deviations of the deviation of observed state turnout from expected state turnout based on respondent individual characteristics from Table 1.

Table 3. Estimated Effects of Voter ID Laws on Turnout Among Registered Voters

<table>
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<tr>
<th>Dependent Variable = Change in Observed Voting Rate</th>
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<table>
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<th>Independent Variable = Presence or Absence of Increase in Voter ID Law (0 or 1)</th>
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<tr>
<td>High School^b</td>
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<tr>
<td>College Graduate</td>
</tr>
<tr>
<td>Grade School minus College</td>
</tr>
</tbody>
</table>

N = 51 (states plus D.C.)

*No High School degree.

^High School degree but no B.A.

^Adjusted data represent the differences between observed state observations and the turnout expected based on respondent individual characteristics from Table 1.

tell us that if the null hypothesis were true (no effect), the observed pattern could easily be a slight turnout decline with increasing law severity on the order of magnitude that is observed.

One further test might offer hope of a better resolution. We observe that change in legislation has as close to zero "effect" as possible for the college educated, especially when adjusted for individual characteristics. This is consistent with theory, since college-educated citizens should not be easily deterred by voter ID laws. We could perform a difference-in-differences-in-differences analysis comparing the states' change among possibly vulnerable non-high school graduates compared to the change among the states' college educated. In other words, we ask whether an increase in voter ID severity reduces turnout among the non-high school educated more than among the college educated. The answer again is a pattern that is decidedly not significant. See Figures 3-5 for the data display.
VOTER ID LAWS AND VOTER TURNOUT

Figure 6 further confirms these findings. It shows turnout for voters likely to be the most vulnerable to strict ID laws, measured by an additive scale combining minority status, low income, low education, and age. The scale identifies “voter ID vulnerability” based on a score of 3 or 4 on our index adding one point each for “nonwhite,” “lowest 20 percentile income level,” “no high school diploma,” and “under 25 or over 64.” The effect is bigger than usual, a “loss” of over one point of turnout per point of law severity. But, again, the findings are not statistically significant. The variance by state is high because, as for the lowest educated group, our sample size is small.
FIG. 3. Change in voter turnout by change in voter ID laws; non-high school graduates, adjusted for demographic characteristics of individual CPS respondents.

DISCUSSION

On the one hand we can observe average turnout "effects" that mimic the plausible complaint of critics. The average estimate is that going from lax to severe voter ID requirements is associated with a couple of percentage points less in the voting rate, as found by the Verceļottī and Anderson study (2006), Muhlhausen and Sikich (2007), and Alvarez et al. (2008). Moreover, this decline is found mainly among the least educated. But the lesson here is that

FIG. 4. Change in voter turnout by change in voter ID laws; college graduates, adjusted for demographic characteristics of individual CPS respondents.
FIG. 5. Change in voter turnout by change in voter ID laws; college educated minus non-high school graduates, difference in differences in differences analysis.

this estimate is statistically inconclusive. The pattern as described is not close to statistical significance. This is true even if we control for the demographic characteristics of the respondents in the CPS state surveys. We could obtain the slight state differences that are consistent with theory by chance even if the true impact of voter identification laws on turnout is a zero effect.

We obtain this inconclusive result because state turnout varies considerably apart from the variables of our analysis. One can see this

FIG. 6. Change in voter turnout by change in voter ID laws; CPS respondents scoring high on index of voter ID vulnerability.
from Figures 1–6. The observations are considerably dispersed around the regression line. Our imagination might tell us that shifts in voter turnout, especially among registered voters, vary little from state to state. If that were the case, the observations would cluster around the regression lines and we would be obtaining estimates of statistically significant voter ID effects.

Our conclusions are in contrast to the claims of Alvarez et al. (2008) in their analysis of CPS voter participation data. We obtain estimated "effects" of similar magnitude to theirs. Yet we differ in our reports of the precision of our estimates. Whereas we see our results as decidedly non-significant, Alvarez et al. report tight ranges to their coefficients that suggest otherwise. We stand by our interpretation that the evidence is far too shaky to stake a claim of discovery.\(^9\)

The moral is simple. We should be wary of claims—from all sides of the controversy—regarding turnout effects from voter ID laws based on current CPS data. The effects may be there. By all tests there is nothing to suggest otherwise. But the data are not up to the task of making a compelling statistical argument.

CONCLUSIONS

It should be evident that our sympathies lie with the plaintiffs in the voter ID cases. Yet we see the existing science regarding vote suppression as incomplete and inconclusive. This is not because of any reason to doubt the suppression effect but rather because the data that have been analyzed to date do not allow a conclusive test.

What can be done to boost the empirical analysis of the problem? Additional elections and additional states enforcing strict voter ID laws will provide more and better data. Beyond that, we suggest a more detailed analysis not of survey turnout data, but of aggregate data within and between states. Here is one difference-in-differences-in-differences design: suppose we observe a decline in the voting rate in disadvantaged precincts of a strict-enforcement state such as Indiana relative to the voting rate of advantaged precincts within the state. This would be evidence that the poor are voting less relative to the rich, but is this because of the voter ID law? A test would be whether the decline is present only in states with new voter ID laws and not in states without them. And then, even if there is an effect, the test will work only if changes in the rich-poor voting gap are rare in the absence of newly enacted voter ID laws. State differences in respondent turnout and change in turnout are too vast for the voter ID law effect to be measured by the CPS with sufficient precision. Conceivably this problem can be alleviated by using within-state aggregate voting returns, which, whatever their demerits, are free of the noise from survey sampling error.

A more modest but still promising approach is to fall back on surveys of who has or does not have the kinds of identity documents mandated in recent voter identification legislation. Turnout questions aside, we don't see why, for now, a straightforward approach isn't enough to raise concerns about a disparate impact of voter ID laws. Recent research of this kind strongly suggests that strict voter ID laws will negatively affect certain voters, including minorities, at least in the short-run (Pawarasarat 2005; Brennan Center for Justice 2006; Barreto, Nuño and Sanchez 2007a; 2007b; Pastor et al. 2008; Hood and Bullock 2008). Until we have more experience with restrictive voter ID laws that are already on the books and, therefore, more data to analyze, survey findings and database matching showing thousands, perhaps millions of citizens lacking government-issued photo ID should raise red flags for policymakers and voting rights advocates alike that these laws could prevent eligible voters from voting.

\(^{9}\) Alvarez et al. offer few details regarding the nuts and bolts of their Bayesian methodology applied to the problem. The challenge for them is to show reasons for statistical confidence where in our view none exist.
### VOTER ID LAWS AND VOTER TURNOUT

**DATA APPENDIX**

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<th>2006</th>
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<sup>a</sup>Scale constructed by Alvarez, Bailey, and Katz (2008).

<sup>b</sup>As a percentage of self-reported registered voters in CPS surveys.

<sup>c</sup>Adjusted state means are mean deviations of observed turnout from in the CPS survey samples from turnout predicted by individual characteristics. See Table 1 for predictor variables.
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