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Early Voting Methods and the Impact on Voter Turnout

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University of Kentucky

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Early Voting Methods and the Impact on Voter Turnout

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Last but not the least, I would like to thank my friends and family for supporting me throughout this program and my life.
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Executive Summary

In 2004, over 27 million Americans voted prior to Election Day through early voting policies that exist in the United States. One of the most discussed questions is whether early voting has an effect on voter turnout.

In this analysis, I will review the voter turnout of states during the 2008 and 2010 election years. By executing this analysis, I hope to determine if these policies affect voter turnout. The implications of this analysis are useful for informing state decisions regarding voting procedures and can assist the other states in determining if these polices, and similar methods in the future, are making voting more convenient, thus increasing voter turnout.

The analysis finds that certain policies influence voter turnout for the 2008 election year. The analysis demonstrates that states classified with “early voting” policies has a negative statistically significant impact on voter participation in the election. After running the 2008 data, I run the same analysis on data for the 2010 election. For the 2010 election year, the analysis found that policies influenced voter turnout. The analysis demonstrated classification of “early voting” policies have a negative statistical significant impact on the voter participation in the election. However, “voting by mail” has a positive statistical impact on voter turnout.

Overall, this study utilized state early voting policy and voter turnout data to determine that there is both a positive and negative statically significant relationship between the type of early voting method policy and voter participation. These findings can assist states in future decisions regarding early voting policy reform.
Introduction

In 2004, over 27 million Americans voted prior to Election Day. This equates to approximately one in four voters who cast their ballot before the traditional Tuesday in November in states with early voting policies (Fortier 2006).

Currently, the policies addressing early voting vary drastically among states. The National Conference of State Legislators separates the states’ policies into four main categories: early voting; early voting and no-excuse absentee voting; all-mail voting; and no early voting. Table 1 below indicates which state’s fall into these categories:

<table>
<thead>
<tr>
<th>Early Voting Policy</th>
<th>States</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Early Voting</td>
<td>Alabama, Connecticut, Delaware, Kentucky, Michigan, Mississippi, Missouri, New Hampshire, Pennsylvania, Rhode Island, South Carolina (11 states)</td>
</tr>
<tr>
<td>Early Voting</td>
<td>Arkansas, Indiana, Louisiana, Tennessee, Texas, West Virginia (6 states)</td>
</tr>
<tr>
<td>All Mail Voting</td>
<td>Colorado, Oregon, Washington (3 states)</td>
</tr>
</tbody>
</table>

Source: National Conference of State Legislators

In this analysis, “early voting” signifies that qualified voters may cast a ballot in person prior to Election Day without the requirement of an excuse. “Absentee voting” allows for a ballot to be requested for mail. However, it is important to note that some states offer absentee ballots to voters with an approved excuse while other offer these ballots without requiring an excuse. These approved excuses include illness, physical disability, prolonged absence from their home
county, and religious observation. “Mail voting” states automatically send every eligible voter a ballot without requests.

Early voting policies have existed since the Civil War era when the soldiers were the first to utilize absentee ballots. However, the wave of modern early voting policies began in the 1970s (NSCL 2011). The creation and implementation of these methods centered on making voting easier and more convenient for citizens, especially those who are serving in the military. The percentage of voters who utilize early voting methods has increased from five to approximately 25 percent since 1980 (Fortier 2006). As this trend continues, it is important to consider the implications, consequences, and intention of policy makers when enacting these voting methods. As the policies changed, there have been many different theories of unforeseen externalities. These concerns include the strategic effectiveness of late campaign strategies considering early voters, voter fraud, as well as possible influences on voter turnout.

One of the most discussed questions is the effect of early voting on voter turnout. Since the primary intent of early voting methods was to allow for more convenient voter protocol, there should be a reflection of this in the voter turnout of states where there are early voting policies. In this analysis, I will review the voter turnout of states during the 2008 and 2010 election years. By executing this analysis, I hope to determine if these policies affect voter turnout. The goal of my analysis is to assist the other states in determining if these polices, and similar methods in the future, are efficiently making voting more convenient, thus increasing voter turnout.

**Literature Review**

There is a significant amount of literature regarding many aspects of absentee and early voting procedures. Since some states have implemented absentee voting pre-Civil War, there
have been a variety of studies evaluating the purpose behind these methods as well as the characteristic differences between these voters and Election Day voters.

Because my study focuses on whether or not these early voting methods are effective in raising voter turnout, the majority of these studies serve as informational pieces about the background of early voting. However, this information is crucial in providing a background to the policy issue.

*Characteristics of Early Voters*

There are a significant number of studies that characterize the demographic characteristics of voters utilizing early voting methods. These studies demonstrate particular variables that may influence overall voter turnout, in addition to early voting.

In 1985, Caldeira analyzed the absentee voting trends in California and Iowa, two states which were some of the first to enact absentee voting regulations during the early 1900s (Caldeira 1985). Through this analysis, it is determined that absentee voting was more common in rural areas. They dub these areas as “absentee ballot districts”. Additional to geographic location, they attribute higher absentee ballots in particular areas due to the presence of elderly constituents who are unable to attend Election Day voting and high-income areas with high college-age populations (Caldeira 1985).

Dubin and Kalsow draw a variety of conclusions about absentee voters by comparing 30 years of data from California elections. Their study cites a variety of potentially significant demographic variables such as race, education, age, and party affiliation. Similar variables are represented throughout other pieces of literature. In this analysis, their model adds variables of home ownership status of voters and urban residency (Dubin 1996). Later, Gronke et al. add per capita income as a potential significant variable (Gronke 2007).
Through their analysis, Karp and Banducci conclude that there is only likelihood to increase voter turnout among the populations who are already predisposed to vote. They determine that these indicators include demographics such as those higher socioeconomic status or education levels (Karp 2000). This study emphasizes the influence of demographic characteristics on voter turnout as demonstrated by previous studies.

In 1998, Stein utilized data from exit polls during the November 1994 Texas general election to address early voting behavior for the purpose of campaign strategy. The conclusions of this analysis suggest that ideology, partisanship, and political interest determine voter turnout rather than demographic traits (Stein 1998). While it is focused on one particular election in a specific state, this study provides different conclusions of the significance of demographic characteristics in voter turnout.

Effects of Policy Methods

The literature also provides insight in the impact that early voting policies have on voter turnout. Caldeira concludes that the permissiveness of state’s voting law is what contributes to the greater participation in absentee voting and overall turnout (Caldeira 1985). Additionally Dubin and Kaslow note that there is a correlation between increases in voter participation and early voting policies when they policies are liberal (Dubin 1996). These findings indicate that the specifics of early voting policies have a significant influence on the voter turnout within a state.

Most of the literature focused on states that utilize the voting by mail methodology. Due the data availability, many of them focused on Oregon. One study found that this method of early voting is not effective in the process of acquiring non-voters, however it is effective in retaining voters (Berinsky 2001). However, Gronke et al. note that voting by mail is the only early voting reform that suggests a positive impact on voter turnout. (Gronke 2007). Karp and Banducci find
that the most significant turnout increases occur in low stimulus elections, such as local elections and primaries (Karp 2000). While these Oregon studies not very generalizable to the broad methodology of early voting, it provides specific evidence pertaining to the three states voting solely by mail.

Burden et al. conduct both aggregate and individual-level statistical analyses of voter turnout in the 2004 and 2008 presidential elections with focus on the theory that mobilization determines the effects of election laws (Burden 2013). The results of this study demonstrate that Election Day registration has a consistently positive effect on turnout and early voting is associated with lower turnout. The authors conclude that the negative consequences of early voting by altering incentives of mobilization for political campaigns. This studies relevancy to my analysis remains mostly to time. Because it is recent, it has a great influence on what my data will suggest as well. However, by adding voter turnout of the 2010 mid-term election, I hope to determine if these conclusions have altered.

Some literature also provides information on additional externalities to early voting in addition to offering alternative methods to increasing voter turnout. In 2004, Highton analyzed the impact of voter registration on voter turnout and determined that early registration closing dates provide less time to register and may limit the voter mobilizing efforts of campaigns. He notes this is due to the exponential intensity that grows as Election Day nears (Highton 2004). He concludes that making registration easier will have little further effects on voter turnout. This analysis demonstrates that changing the registration process has little effect on the overall convenience of early voting methods. The conclusions of Gronke et al. are also skeptical of the influence early voting has on turnout. Rather, they suggest that early voting leads to more
accurate ballot counting, reduced administrative costs and errors, and increased voter
satisfaction.

Overall, the previous literature had provided a variety of conclusions regarding voter
turnout is influenced by early voting methods. Primarily, it is noted that the type of voter reform
determines if there is an increase in turnout, citing voting by mail as the most influential.
Additionally the literature provided insight in to the demographic characteristic variables
accommodate for the differentials that influence voter participation.

Research Design

This study examines the early voting methods for each state to assess whether there is a
statistically significant impact on voter turnout. The voter turnout data consists of two different
election years, 2008 and 2010. By utilizing years that do and do not feature presidential
elections, I hope to get a clearer picture of the overall turnout trend associated with early voting
as well as specific information within each year.

Data Collection

The voter turnout data was acquired through the Pew Charities, which organizes the
election data in profiles by state. This source provided a variety of different data points from
each election. For my study, I use the voter turnout percentage as reported by Pew.

I kept the categorical system of early voting policies utilized by the National Council of
State Legislators. In this analysis, I separated the 50 states and District of Columbia into
classifications of early voting; early voting and no-excuse absentee voting; all-mail voting; and
no early voting. Since they are categorical variables, I denoted the state’s policy with a 1 or 0, 1 signifying “yes” and 0 signifying “no”. For the policy categories, there are 204 data points.

Variables

The literature indicated a number of demographic indicators that could act as explanatory variables. In my analysis, the primary independent variables of interest are the early voting method policy and the dependent variable is voter turnout.

Based on what was found in the literature, it is possible that these demographic oriented variables can have more of an effect on voter turnout than the early voting policies. I used the percentage of white populations and population over 65 years old because these demographics were most available. High school graduation rates can be used as an indicator of population education levels, which the literature indicated could influence voter turnout.

I believe that there was be statistical significance in the relationship between these voter demographics and the voter turnout. The explanatory variables are explained in the chart below with a hypothesized relationship.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement</th>
<th>Hypothesized Relationship</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Voter Policy</td>
<td>0 (do not have policy) 1 (have policy)</td>
<td>Positive</td>
<td>National Conference of State Legislators</td>
</tr>
<tr>
<td>Year</td>
<td>2008-2010</td>
<td>Positive</td>
<td>N/A</td>
</tr>
<tr>
<td>High School Grad Rate</td>
<td>Percentage</td>
<td>Positive</td>
<td>Institute of Educational Sciences’ National Center for Education</td>
</tr>
<tr>
<td>Population</td>
<td>Number in millions</td>
<td>Negative</td>
<td>United States Census Bureau</td>
</tr>
<tr>
<td>White Population Percentage</td>
<td>Percentage</td>
<td>Negative</td>
<td>United States Census Bureau</td>
</tr>
<tr>
<td>Per Capita Income</td>
<td>Dollar in thousands</td>
<td>Positive</td>
<td>University of New Mexico</td>
</tr>
<tr>
<td>65 or older</td>
<td>Percentage</td>
<td>Positive</td>
<td>United States Census Bureau</td>
</tr>
</tbody>
</table>
Summary Statistics

Summary statistics for the 2008 election model are listed in Table 3. The voter turnout for this presidential election year varies from 49.04% to 78.10%. The average voter turnout percentage across the states and the District of Columbia is 63.67%. The variable that differs most is the percentage of white population per state.

Table 3: 2008 Summary Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voter Turnout</td>
<td>51</td>
<td>63.66647 %</td>
<td>6.090082</td>
<td>49.04 %</td>
<td>78.1 %</td>
</tr>
<tr>
<td>High School Graduation Rate</td>
<td>51</td>
<td>71.62745 %</td>
<td>9.221628</td>
<td>46.00 %</td>
<td>86.00 %</td>
</tr>
<tr>
<td>Population (in Millions)</td>
<td>51</td>
<td>5.961955</td>
<td>6.724633</td>
<td>.532668</td>
<td>36.75667</td>
</tr>
<tr>
<td>White Population Percentage</td>
<td>51</td>
<td>78.31098 %</td>
<td>13.72316</td>
<td>27.07 %</td>
<td>95.9 %</td>
</tr>
<tr>
<td>Per Capita Income (in Thousands)</td>
<td>51</td>
<td>$40.06155</td>
<td>7.271718</td>
<td>$30.945</td>
<td>$70.688</td>
</tr>
<tr>
<td>65 and older Population Percentage</td>
<td>51</td>
<td>12.97647 %</td>
<td>1.694413</td>
<td>7.1 %</td>
<td>17.4 %</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>51</td>
<td>5.32549 %</td>
<td>1.235774</td>
<td>2.9 %</td>
<td>8.3 %</td>
</tr>
</tbody>
</table>

Source: Compiled by author using R

The summary statistics for the 2010 election model are listed in Table 4. The voter turnout for this elections ranges from 29.57% to 56.00%. These turnout percentages are significantly lower than those of the 2008. These differences can be attributed to the higher voter participation based on salience and attention brought by federal elections.
Table 4: 2010 Summary Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voter Turnout</td>
<td>51</td>
<td>43.73471 %</td>
<td>6.177929 %</td>
<td>29.57 %</td>
<td>56 %</td>
</tr>
<tr>
<td>High School Graduation Rate</td>
<td>51</td>
<td>78.76471 %</td>
<td>6.754519 %</td>
<td>59 %</td>
<td>88 %</td>
</tr>
<tr>
<td>Population (in Millions)</td>
<td>51</td>
<td>6.053834</td>
<td>6.823984</td>
<td>.563626</td>
<td>37.253956</td>
</tr>
<tr>
<td>White Population Percentage</td>
<td>51</td>
<td>76.12667 %</td>
<td>13.85659 %</td>
<td>24.78 %</td>
<td>95.25 %</td>
</tr>
<tr>
<td>Per Capita Income (in Thousands)</td>
<td>51</td>
<td>$39.44665</td>
<td>7.184617</td>
<td>$30.841</td>
<td>$71.22</td>
</tr>
<tr>
<td>65 and older Population Percentage</td>
<td>51</td>
<td>13.2451 %</td>
<td>1.711644</td>
<td>7.7 %</td>
<td>17.3 %</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>51</td>
<td>8.713725 %</td>
<td>2.21206</td>
<td>3.8 %</td>
<td>13.5 %</td>
</tr>
</tbody>
</table>

Source: Compiled by author using R

Statistical Model

For this study, I use ordinary least squares (OLS) regression, run separately for each year. I also utilized a Robust Standard Deviation in my models. Robust estimation refers to allowing states to have different levels of inherent variability in their voting turnout. This accounts for some states that might have stable patterns while others might have highly variable patterns from election to election. The model is represented through the following equation:

\[
\text{Voter turnout} = \beta + \beta_1(\text{Voter Policy}) + \beta_2(\text{High School Grad Rate}) + \beta_3(\text{Population}) + \beta_4(\text{White Population}) + \beta_5(65 \text{ or older Population}) + \beta_6(\text{unemployment}) + e
\]

Findings

The regression results are presented in Table 5. For the 2008 election year, the analysis demonstrated that states classified with “early voting” policies has a statistically negative significant impact on the voter participation in the election. This model did not find the other
policy types to have a statistically significant impact. This model exhibits that race and per capita income have statistical significance in voter turnout. The results relating to the population were not congruent with my hypothesis. These results explain that there is a significant positive impact between being white and voter turnout. While, these results pertaining to white population differ from my hypothesis, the significance of per capita income correlates with the literature suggesting that higher socioeconomic status is related to voter participation. The variables impact on voter turnout holding all else equal is in Table 4.

2008 Election Data Regression Statistics

<table>
<thead>
<tr>
<th>Table 5: 2008 Election Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Early Voting and No-Excuse Absentee Voting</td>
</tr>
<tr>
<td>Early Voting</td>
</tr>
<tr>
<td>Voting By Mail</td>
</tr>
<tr>
<td>High School Graduation Rate</td>
</tr>
<tr>
<td>Population (In Millions)</td>
</tr>
<tr>
<td>White Population Percentage</td>
</tr>
<tr>
<td>Per Capita Income (In thousands)</td>
</tr>
<tr>
<td>65 and older Population Percentage</td>
</tr>
<tr>
<td>Unemployment Rate</td>
</tr>
<tr>
<td>Constant</td>
</tr>
</tbody>
</table>

Source: Compiled by author using R
Note: *p<0.1; **p<0.05; ***p<0.01
After running the 2008 data, I used the same equation on the data for the 2010 election.

For the 2010 election year, the analysis found two policy categories that influenced voter turnout. The analysis also demonstrated that the classification of early voting policies have a negative statistically significant impact on the voter participation in the election. It also notes that states utilizing voting by mail policy have a significant impact on voter turnout for this midterm election. This model also shows that race has a correlation to the voter turnout. The variables impact on voter turnout holding all else equal is in Table 6.

### 2010 Election Data Regression Statistics

**Table 6: 2010 Election Model**

|                                | Coefficient | Robust Std. Err. | T    | P>|t|  | 95 % Confidence Interval |
|--------------------------------|-------------|------------------|------|------|--------------------------|
| Early Voting and No-Excuse Absentee Voting | 1.345035    | 1.150188         | 1.17 | 0.249| -.9778161 - 3.667887    |
| Early Voting                   | -7.370107   | 2.05431          | -3.59| 0.000**| -11.51887 - 3.221344    |
| Voting By Mail                 | 9.100791    | 1.645836         | 5.53 | 0.000***| 5.776956 - 12.42462     |
| High School Graduation Rate    | .1111162    | .1300686         | 0.85 | 0.398| - .1515626 - 0.3737951  |
| Population (In Millions)       | -.1068108   | .1302642         | -0.82| 0.417| - .3698847 - 0.1562631  |
| White Population Percentage    | .1393694    | .0613825         | 2.27 | 0.028*| .0154049 - 0.2633339    |
| Per Capita Income (In thousands)| -.0123311   | .1217666         | -0.10| 0.920| - .2582438 - 0.2335816  |
| 65 and older Population Percentage| .3590553    | .7231716         | 0.50 | 0.622| - 1.101419 - 1.81953    |
| Unemployment Rate              | .2362402    | .3712712         | 0.64 | 0.528| - .5135573 - 0.9860377  |
| Constant                       | 18.20588    | 15.19369         | 1.20 | 0.238| -12.47839 - 48.89016    |

Source: Compiled by author using R

Note: *p<0.1; **p<0.05; ***p<0.01
Limitations.

A consideration for this analysis is election types per state. While this study considered both presidential versus non-presidential elections, states vary in the state officials being elected during these years. States electing a high profile state officials or governor will potentially influence the voter participation. Election issue salience and the level of competition among candidates are also possible influencers to the voter turnout. Greater salience and higher levels of completion are more likely to increase voter participation and would be important to note if this influences turnout more than policy types. However, these factors are not easily measured and are harder to accommodate for in a model. Because of this difficulty, these factors cannot be controlled for in this analysis.

A potential caveat for the data analysis of both years is that they are only a small representation of the election years. Future analysis should utilize more election years to determine if this is a trend rather than a one-time occurrence.

Overall, it is also a consideration that voter turnout may not be as efficient of a measurement for the convenience of voting in a state. As the literature had demonstrated, the voters who tend to utilize early voting methods are those with a prior inclination to vote. This contrasts the new voters who would not otherwise vote without early voting methods that a voter reform policy would be intended for. This concern can apply to this study as well as past and future studies who evaluate this concept.

Conclusion

Overall, this study utilized state early voting policy and voter turnout data to determine that there is a statically significant relationship between some types of early voting method policy and voter participation. Utilizing both 2008 and 2010 elections, it demonstrated that
“early voting” policy had negative statistical significance in the presidential election in both models. These results differ from the results of literature that exists currently. The differences found in this analysis can be due to utilizing more recent data or by using less election year data.

There was a statistically significance between voter turnout and voting by mail during the 2010 midterm election. This result echoed the conclusions of Gronke et al. by demonstrating the voting by mail is the only early voting method likely to have a positive significance in voter turnout. The analysis also ties in the results of Karp and Banducci, that early voting methods have more of an influence in low stimulus elections, such as the 2010 midterm election.

Since the historical purpose of early voting methods was to increase convenience and ease for the voter, it can be demonstrated that the significance these polices have on turnout reflects that they are not efficiently upholding this purpose. As states continue to create policies of early voter method reform, it is important to consider this study as well as prior suggesting that these methods are not effective in increasing voter turnout. This analysis also corroborates with the literature when stating that the voting by mail early voter methodology is more effective than others. States can utilize this information as they research which policy would be most efficient for their population.

Additionally, the analysis of both election years indicates that some of the demographical characteristics of voters, such as race and per capita income, have a statistically significant impact on voter participation. This coincides with the literatures’ conclusions that voter participation is related to the voter’s characteristic based predisposition to vote.

As the voter climate changes over time, it may be insightful for states to reform their early voting policies. By altering the methodology based on the literature, states can continue
making the voting process more convenient, thus allowing for higher turnout and better population representation.

Due to the recent data used during this study, it can be utilized to demonstrate a more accurate representation of the current voter climate. As more election turnout data is made available, this methodology and research design can be recreated.
Works Cited


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<https://www.census.gov/compendia/statab/2012/tables/12s0019.pdf>.

<http://www2.census.gov/acs2008_1yr/prod/SelectPopulationProfile/State/>.
