

THE IMPACT OF BATTLEGROUND STATES ON
EARLY VOTING IN THE U.S.

By

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THE IMPACT OF BATTLEGROUND STATES ON
EARLY VOTING IN THE U.S.

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Abstract: Each year, an increasing number of American citizens choose to participate in the electoral process by casting a ballot prior to the established Election Day. Recently, studies have focused on whether one form of alternative voting, early in-person voting, has increased overall levels of voter turnout in U.S. elections. However, there is a lack of research pertaining to which factors increase the likelihood a citizen will choose to cast their vote early. As status of a state as a battleground state is likely to increase turnout, this thesis contributes to the literature by examining the following research question: Does the number of early voters increase in relation to the total number of voters depending upon whether or not a state is a battleground? This thesis finds support for a relationship between status as a battleground state and the number of early voters such that as a state becomes more competitive electorally, a greater proportion of the voting population opts to vote early.

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CHAPTER I

INTRODUCTION

SECTION I. RESEARCH INSPIRATION

Early one morning near the end of October 2012, I boarded a bus with several other Oklahoma passengers who represented a particular political advocacy group. We were headed northwest with Colorado Springs, Colorado set as our final destination. At this point in 2012, it was known that Colorado was an important state to secure for either candidate's presidential bid and we were going to assist in the groundwork known as "door-knocking." Although I had never met most of my traveling companions, nor was I intimately familiar with the mission of their group, I decided to open myself to the experience of political campaigning and the opportunity to learn more about the competitive side of the political process. Much to my surprise, what I had anticipated to be a quiet bus ride was turned into a raucous phone bank for completing "cold calls" to registered Colorado voters. While the miffed responses and occasional name calling was expected, there was one thing that stood out to me that the people I called had in common: They had already voted.

In 2012, registered voters in Colorado were able to cast their ballot in person beginning on October, 22nd. However, these voters were either telling me a falsehood to get me off the phone or voters in this state actually were participating in early voting at an unprecedented rate. It is quite possible that some of them fibbed to me, but even so they still knew about the option of

early voting and when it was taking place in their state. This experience led me to wonder if there was something unique about the environment in the state of Colorado which increased the likelihood that voters would be aware of and utilize the option of early voting, even if only to get rid of pesky callers like me.

SECTION II. STATEMENT OF THE PROBLEM

Voter behavior has long been studied in an effort to better understand various areas such as what influences levels of voter turnout, shared characteristics of voters, and the implications turnout may have for candidates and campaigns as well as existing legislators and election administrators. Researchers have considered factors such as the competitiveness of elections, partisanship, demographics, socialization, psychology, media, and so on. One of the more recent areas of interest in the study of voter turnout is the influence of individual administrative policies held by each state (i.e. same-day registration, no-excuse absentee voting, etc.). Capitalizing on the natural experiment conditions offered by the varying policies held among the states, several researchers have studied the impact of various registration standards on the number of citizens who cast a ballot in an election (Timpone 1998, Erikson 1981, Kelley, Ayres, and Bowen 1967, Rosenstone and Wolfinger 1978). Additional studies have examined the effect that alternative voting methods or ‘convenience voting’ have on overall turnout (Berinsky 2005, Kousser and Mullin 2007, Karp and Banducci 2001).

It is important to acknowledge that approximately thirty percent of voters in the 2008 presidential election participated in some form of alternative voting and cast their ballots before the established Election Day (McDonald 2009). The percentage of voters participating by means of these less traditional forms of voting is on the rise as more and more states move to adopt unconventional policies. One-third of the voting population is more than enough to significantly impact the outcome of elections, and, if the trend continues, this number can be expected to grow.

As a result, one possible important implication of early voting is that candidates may have a greater chance at achieving electoral success by altering their campaign strategies to target and secure early votes. As stated by Alvarez, Levin, and Sinclair (2011, 248), "...in a democracy, election rules matter. How elections are administered can change the costs of elections, voter satisfaction with the process, the strategies campaigns pursue, the election's integrity, and who wins the election." Indeed, candidates might fare better in their bids for office if they consider their two voting populations (the early voters and Election Day voters) and whether these populations shift in the states that are the most important to candidates – the battleground states. Thus, what I hope to establish with this endeavor is to not only highlight findings which will be beneficial to scholars and useful in furthering the literature on a particular form of alternative voting, but also to explain significant relationships which may exist and are applicable to the real world of political campaigning.

Although non-traditional voting is becoming increasingly common, one area that has yet to be the subject of systematic review is the proportion of the voting population that is opting to vote early. Therefore, this thesis seeks to contribute to the field by examining the percentage of the voting population that is voting early in each state and determining if there are significant differences among states. More precisely, this research will attempt to address whether there is something unique about the environment (state) one is voting in that makes an individual more or less likely to vote early. The current study does not seek to determine whether or not the adoption of early voting policies increases turnout within a state. Rather, I explore the following questions: Of those already participating in the voting process, how many are choosing to do so by casting an early vote? Are there notable differences among states and, if so, what factors are contributing to these observed differences?

In considering possible factors that may contribute to a higher proportion of the voting population casting an early vote, existing literature provides support for observable differences in

the way that candidates approach battleground states (Hill and McKee 2005, Shaw 2006). Candidates and campaigns are much more likely to visit battlegrounds, also referred to as swing states, as well as more likely to spend high dollar amounts in these states. This is due in large part to the incentive structure of the winner-take-all electoral system in which candidates do not reap any benefits for their campaign efforts unless they win more than fifty percent of the popular vote. Therefore, this thesis hypothesizes that the unique environment created by battleground states (those subject to high political contestation preceding an election) will be found to be a significant factor in determining the percentage of the population that participates in early voting. In doing so, this research compares the rates of early voting in battleground states to those in non-battleground states to ascertain whether or not there are notable differences based on this distinction.

It is my expectation that, due to the increased campaign activity within battleground states, states that are toss-ups for a given presidential election will experience a higher proportion of early voting than their non-battleground counterparts. This relationship will be examined utilizing a generalized linear model and data from each presidential election ranging from 1980-2012. Literature on early voting is still largely in development, but expectedly so given that it was only in 2008 that early voting policies were implemented in over half of the states. This, and other factors which will be discussed later, necessarily creates data limitations. If my prediction is supported, this does not mean that candidates should focus on developing strategies to target early voters only in battleground states. It does mean, however, that focusing mainly on the early voting population in battleground states is more likely to have an electoral payoff.

This thesis is organized as follows: Chapter two will reference the relevant literature, setting a basis for my hypotheses and developing my theory. Chapter three discusses the methodology used as well as the variables and observations included in the study. Chapter four reports the findings of the statistical tests I ran before entering into a discussion on the limitations

of the data and what these findings mean for the hypotheses laid out in chapter two. The final chapter reiterates the contribution of this research to the field of study and the campaign field, and indicates a proposed direction for future research.

CHAPTER II

REVIEW OF LITERATURE

SECTION I. LITERATURE REVIEW

Early Voting:

Much of the previous research on early voting has been primarily concerned with two questions: What is it and who is doing it?

What is early voting?

Regarding early voting, Gronke, Galanes-Rosenbaum, and Miller (2007) define early voting as “a blanket term used to describe any system where voters can cast their ballot before the official Election Day” (p. 639). However, they quickly break down the electoral reforms into three different groups: voting by mail (VBM), no-excuse absentee balloting, and in-person early voting (EIP). This thesis focuses on in-person early voting, which is described as a system “whereby voters can cast early ballots just as they would do on Election Day, most commonly at the local elections office....” I am concerned with in-person voting because it is the form of alternative voting which, procedurally, is the most similar to Election Day voting. Unlike vote-by-mail or absentee balloting, early voters must still travel to a designated location during an appointed time to fill out and cast their vote.

Alvarez, Levin, and Sinclair (2011) point out the importance of distinguishing among the different types of early voting reforms, because there are substantive differences between individuals choosing to vote early in-person and those participating early by another mechanism (p. 248). Their study finds that factors such as demographics and political attitudes have different effects on the type of voting system one chooses (p. 257). As such, this study will isolate the proportion of voters choosing to vote via in-person early voting.

Who participates in early voting?

As Gronke, Bishin, Stevens, and Galanes-Rosenbaum (2005) illustrates, knowing who among the electorate is turning out to vote is significant for campaign efforts. ‘Getting out the early vote’ has become a new catchphrase among campaigns as voting reforms have encouraged candidates to adapt their campaign strategies accordingly. The authors theorize that “[e]arly voting allows campaigns to target their get out the vote efforts more efficiently (and stop bothering voters who have already cast their ballot)” (p. 2). Similarly, McDonald (2009) reports that a lack of adaptability may have contributed to John McCain’s defeat in the 2008 presidential election. He states that the “McCain campaign advisor Rob Kubasko felt that, ‘The election was lost three weeks before Election Day... what an old, old election model that was completely obsolete’” (p. 7).

Robert Stein’s (1998) foundational piece on early voting examined a single gubernatorial election in 1994 in Texas. While the study only reviewed data from a single state, Texas was one of the initial states to adopt this reform in 1988 and therefore served as an apt case study. In discussing the differences between voters observed from the data, he commented that “the sharpest distinctions between election-day and early voters were observed for attitudinal (i.e. interest in politics, partisanship, and ideology) rather than for demographic traits” (p. 67). He finds that the differences between election-day voters and early voters are similar to those

observed between nonvoters and voters with early voters more likely to be heavily partisan, interested in politics, and strongly ideological. Neeley and Richardson, Jr. (2001) as well as Alvarez, Levin, and Sinclair (2011) report similar results. Along the same vein, Gronke, et al. (2005) demonstrate in their survey analysis the importance of political information for voting early.

On a different note, some individuals may be interested in participating in early voting because they perceive it as a reduction in the cost of voting. Gronke, Galanes-Rosenbaum, and Miller (2007) discuss how early voting may stimulate turnout by altering the cost-benefit analysis voters undergo according to John Aldrich's rational choice piece on voter decision-making. Additionally, Gronke, et al. (2005) note that, from a policy diffusion standpoint, reforms aimed at convenience voting have received a lot of enthusiasm on the basis that they have the potential to reduce the amount of time spent waiting in line on election-day as well as increase accessibility for citizens of limited mobility. Gronke (2004) also demonstrates how the option to vote early reduces the costs of participating by showing that individuals who would experience longer commute times to the polling place frequently choose to vote early.

These studies have provided a glimpse into which members of the voting population are currently participating in early voting. In sum, citizens who are strong partisans, interested in campaigns/politics, and high in political information are more likely than other citizens to participate in early voting. These characteristics fit the previous scholars' expectations given that these are all factors that contribute to whether or not one is likely to participate in elections in the first place. Due to being high propensity voters in general, these authors theorized that these individuals would also be more likely to participate in early voting, an expectation confirmed by the data.

It is integral to the study of early voting and discussion of the findings to understand that this term can encompass several different forms of non-traditional, or alternative, voting. For the purposes of this study, early voting will be interpreted as early-in person voting only. It is also quite interesting to note that the literature contains studies which have attempted to examine attitudinal or informational differences between early voters and Election Day voters. However, this thesis does not attempt to measure the individual attitudes of voters but acknowledges that the same characteristics found in the literature which create a greater propensity for voting early (political information, interest in politics, partisanship, etc.) are indeed likely to be more prevalent in battleground states. Instead, the research question for this thesis focuses on the proportion of the voting population that turns out to early vote irrespective of individually held beliefs or values. It looks specifically at factors which may influence this proportion, a topic not covered in the literature.

Why Battleground States?

When studying voter decision-making and behavior, it can be important to draw out distinctions between voters in battleground or contested states and those in states that are considered to be safe. The winner-take-all system instituted by the Electoral College motivates candidates to focus on particular states that might “swing” to their side rather than states known to have heavy partisan leanings (Hill and McKee 2000, Shaw 2006). Candidates do not benefit electorally from gaining twenty-five percent of a state’s popular vote (or any other number below fifty percent plus one for that matter) under this system and thus strategically dedicate their efforts in more contested states.

Gerber, Huber, Dowling, Doherty, and Schwartzberg (2009) use McDonald’s (2009) definition of battleground states as “states that were visited by candidates from both campaigns in the last two weeks of the election” (p. 3). Using this measure of battleground states, it is observed

that citizens living in these states differ from citizens in other states in a number of ways. First, citizens living in battleground states are subject to the increased amount of attention spent on these states by the candidates (p. 1). This is measured both in terms of number of candidate visits to a state as well as the amount of money spent by a campaign in that state. Additionally, citizens are more likely to turnout to vote if they reside in a battleground state. Theoretically this may be because citizens believe their vote matters more as a result of more pervasive campaigning and perceived closeness of the election.

The effect of individuals in battleground states turning out to vote at higher rates has been observed empirically. McDonald (2009) demonstrates that the very incident of a state becoming a highly contested state increases the level of turnout in that state. On the other hand, he is also shows that losing one's status as a battleground state results in a decrease in the percentage of the population turning out to vote (p. 2). Gerber and Green (2000) demonstrate how various campaign activities increase the likelihood an individual will decide to cast a vote on Election Day. The campaign activity with the highest turnout results is face-to-face interaction, which understandably is a tactic more often utilized in swing states.

The literature on early voting suggests that it is mainly a form of convenience voting that draws in citizens who would have participated in the election regardless rather than attracting nonvoters to engage in the electoral process (Gronke, et al., 2007). Due to the nature of battleground states, individuals in these states are more likely than individuals from other states to participate due to increased exposure and spending by candidates, which often reduces information costs, increases one's perception of political efficacy, and increases social pressure (Gerber, Green, and Larimer 2008). Therefore, it is expected that individuals in these states are more likely than individuals in other states to partake in early voting. Additionally, according to Gronke, (2004), individuals may want to vote early in order to stop being contacted by campaign efforts in the final few weeks of the campaign.

Prior literature predominantly focuses on whether or not election reforms such as early voting are stimulating overall voter turnout as well as individual-level characteristics which make it more likely that a citizen will vote prior to Election Day. A few scholars have asserted that early voting has the ability to alter the way modern campaigns are run, but as of yet none have specifically looked at states where campaigns are spending the most time and money: battleground states. Drawing from this previous research, I theorize that due to the unique environment provided by battleground states for informing and mobilizing voters, citizens in contested states will be more likely than citizens in other states to utilize in-person early voting.

Hypothesis 1 (H1): Voters in states classified as battleground states (those experiencing increased electoral competitiveness) will participate in early voting in higher proportions than voters in states which are not classified as battleground states.

Level of Turnout

While previous literature has indicated that battleground states may increase electoral participation, there is another line of literature containing arguments to the contrary. Wolak (2006) probed the relationship between presidential campaign strategies in battleground states and how these strategies ultimately affect the citizens in these states in terms of level of interest in politics, engaging in political discussion, participation in the political process, among others. By observing three separate presidential elections and utilizing the widely known data source, National Election Studies, Wolak concluded that despite increased campaign efforts in battleground states, the impact of these efforts is limited. The greatest contribution of this study was the finding that an individual's likelihood to vote is more dependent upon the level of partisanship within the state. This finding diminishes the claim that the increased campaign activity within a battleground state is the source of higher voter turnout.

Also challenging some of the beliefs associated with battleground states and electoral participation is the 2005 study by Holbrook and McClurg. By focusing on various campaign activities, such as visits and advertisements, the authors sought to examine what effect these activities have on the mobilization of citizens. The findings presented by these authors, while broadly in agreement that campaign activity does result in higher levels of turnout, make some distinctions based on the type of campaign activity and which individuals are more likely to be mobilized as a result of increased campaigning. Their findings suggest that campaigning is the most effective in mobilizing strong partisans. Therefore, similar to the findings by Wolak (2006), overall levels of voter turnout may be more accurately attributed to partisan leanings rather than any increased level of awareness or interest among voters.

Further, reports indicate that regardless of race competitiveness, turnout typically declines for non-presidential races¹. In his well-known work, Aldrich (1993) provides a basis for understanding why this occurs. Taking into consideration the voting decision calculus of individual citizens, the benefit of seeing one's preferred candidate elected to the presidency outweighs the benefit of seeing one's preferred candidate elected to a lower office. Therefore, there is a greater risk also associated with not voting for president if by not participating one's preferred candidate will lose. Therefore, regardless of the level of electoral contestation within a state, voter turnout may not experience significant changes.

This literature provides evidence which runs contrary to the theory that increased levels of campaigning in competitive states necessarily results in higher levels of voter turnout. Given this literature, the secondary hypothesis will examine whether it is truly the competitive aspect associated with being a battleground state which creates a unique environment conducive to early

¹ <http://www.pewresearch.org/fact-tank/2014/07/24/voter-turnout-always-drops-off-for-midterm-elections-but-why/>

voting or can the proportion of early voters be attributed to the level of turnout more generally, regardless of status as a swing state?

Hypothesis 2 (H2): State turnout rates among the eligible voting population will be positively correlated with the proportion of voters that choose to participate in early voting in that state.

CHAPTER III

METHODOLOGY

SECTION I. DATA

Previous studies have conducted survey analyses to measure the attitudinal differences between early voters, Election Day voters, and nonvoters (Stein 1998, Neeley and Richardson, Jr. 2001, Alvarez, Levin, and Sinclair 2011, Gronke, 2005). I do not implement a survey for two main reasons. First, other studies did so in an effort to determine if early voters are characteristically different from other voters or nonvoters. This is outside the scope of the current study as the research here does not attempt to measure attitudinal differences but rather differences in early turnout based on a state's status as a swing state. However, the findings from these prior studies will be important for shaping the discussion about the implications for candidates and campaigns. Second, these studies were largely attempting to measure whether early voting as an electoral reform increases overall voter turnout. This issue, while important, has been covered fairly well by the existing literature. In contrast, the proportion of voters casting an early vote has received little to no scholarly attention and has equally important implications for those seeking public office and their consultants.

In order to test the hypotheses presented in chapter two, I added to a dataset first created by Tolbert and Smith (2005) for their studies on the effect of ballot initiatives on overall voter turnout. Their dataset spans from 1980-2004 (seven presidential elections). However, I will be

utilizing the dataset as supplemented by Gronke, Galanes-Rosenbaum, and Miller (2007), which includes six categories of voting reforms. These reforms include: “‘traditional’ absentee balloting; ‘no-excuse’ absentee balloting; no-excuse absentee balloting with permanent absentee status; EIP voting; no-excuse absentee plus EIP voting; and VBM²” (summarized in Table 1 below). Additions made to the dataset involved including observations from the two most recent presidential election cycles (2008 and 2012) as well as including limited information for the 1976 presidential election³. I also supplemented the dataset by creating the following variables: policy age, Electoral College votes, election margin (state-level), three separate measures of electoral competitiveness (national-level), and population density. The final version of the dataset includes five hundred observations (ten election cycles for each of the fifty states).

The term ‘early voting’ can potentially take on several meanings. For clarity, I am using definitions provided in previous studies to distinguish among the different reforms.

Traditional absentee balloting refers to those states in which one must provide a documented excuse in order to obtain an absentee ballot. Often these excuses must be related to a medical illness, the voter being a primary caregiver for an individual requiring twenty-four hour patient care, being out of the county/state, etc. The requirements for a traditional absentee ballot vary by state but can typically be found on each state’s Secretary of State official website.

No-excuse absentee balloting differs from traditional absentee balloting in that citizens are not required to provide an excuse in order to obtain an absentee ballot. It is a much more simple process where any registered voter may receive an absentee ballot upon request regardless of reason. In several states, one form can be completed and submitted to request a ballot for any

² Vote-by-mail.

³ The 1976 election was included for the purpose of calculating the previous electoral margin for the 1980 election.

election within a single year period. In order to receive an absentee ballot for a subsequent election year, a citizen would need to fill out and submit the request again.

Closely related to no-excuse absentee balloting is *no-excuse absentee balloting with permanent absentee status*. The procedure for obtaining an election ballot is identical to the former. However, rather than only be able to receive a ballot for a single election or elections within a single year, a registered citizen is able to sign up to be on a permanent list. It should be noted though that some states provide both no-excuse absentee balloting and permanent absentee status in which qualifying for permanent status does require documentation. For the most up-to-date information, it is recommended that citizens review the requirements within their state.

For the purposes of this research, early voting is limited to *early in-person voting* only. Rather than receiving an absentee ballot in the mail and returning via mail as well, early in-person voting requires an individual to show up to a designated location within their county in order to receive and cast a ballot prior to Election Day. This is more similar to traditional voting than the other mechanisms previously described in that individuals must still arrive in person in order to vote. However, there are many variations in early in-person voting policies across states in terms of how many days will be designated for early voting as well as how long early voting takes place prior to the election. *No-excuse absentee balloting plus EIP voting* is used to designate states which allow for both no-excuse absentee ballots as well as early in-person voting.

Vote-by-mail is a voting system in which states mail ballots to all registered voters prior to Election Day. Voters are expected to return their ballots via mail although some locations may be available for an individual to return a ballot. States that have implemented a vote-by-mail system typically have fewer polling places available for traditional voting and may have varying requirements for the date a ballot must be received in order to be counted.

| <i>Table 1: Early Voting Systems</i> | | |
|--|---|--|
| Early Voting System | AKA | Mechanics |
| Vote-by-Mail | “Postal Voting” | 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. |
| Early In-person Voting (EIP) | In-person absentee balloting | 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. |
| No-excuse Absentee | “Vote by mail”, “absentee voting by mail” | 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, only a ballot postmarked on or before the election counts as valid. |
| Note: This table is from Gronke, Galanes-Rosenbaum, and Miller (2007, p. 640) | | |

This project improves upon previous studies in two significant ways. First, some studies have concentrated their efforts on a single voting district while the occurrence of early voting is more likely to exist on a statewide basis (Stein 1998, Neeley & Richardson, Jr. 2001). Additionally, candidates rarely, if ever, focus all of their attention on a single district. Second, other studies have chosen to examine a single election year (Alvarez, Levin, and Sinclair 2011, Stein 1998). Arguably the authors may have wanted to examine a recent presidential election to observe the effects of early voting after the policy had been well-diffused among states. This may be misguided though since scholars observe that the number of individuals participating in early voting increases with the number of years the policy has been in effect.

SECTION II. OPERATIONALIZING THE VARIABLES

Dependent variable – proportion of early voting:

The proportion of early voting was measured by gathering data on the number of votes that were cast in-person before the official date of the election dividing by the total votes cast within a state during a presidential election year⁴. This calculation yielded the percentage of voters that chose to take advantage of early voting. The research question is geared specifically toward the relationship between electoral competitiveness and the percentage of the voting population which opts to vote early. Therefore, the proportion of early voting is an appropriate measure as there are no implications being made regarding overall voter turnout.

This dependent variable offers a new way to look at and study early voting. Previous research has studied early voting but mainly with the intent of learning if overall voter turnout is increased or if there are notable differences between the types of individuals who vote early compared to those who vote on Election Day (Stein 1998, Neeley and Richardson, Jr. 2001, Alvarez, Levin, and Sinclair 2011, Gronke, et al. 2005). However, this research is novel in that no known academic source has yet to study under which environmental conditions voters are more likely to choose to vote early over traditional voting. Therefore, this dependent variable which measures the proportion of the voting population choosing to vote early may provide insight into the factors that increase this behavior and afford candidates greater predictability when formulating their campaign strategy.

I examine the relationship between the dependent variable and the independent variable by employing a generalized linear model (GLM). This model is the most appropriate for the data given that the dependent variable is a proportion of early votes and, as such, is bound between

⁴ This information is provided by the Election Administration & Voting Survey conducted by the United States Election Commission. Supplementing this data was that provided by the United States Elections Project.

zero and one. Due to there not being a true linear relationship between the dependent and independent variables, other tests (such as ordinary least squares regression) are not as well suited for the present thesis. The GLM used in this thesis was run with a logit link and a binomial family. Additionally, the model was run using robust standard errors.

Independent variable (H1) – status as a battleground state:

The independent variable of interest is status as a battleground state. Its primary function is to denote competitive elections. Regarding the relationship between this independent variable and the proportion of early voting, I hypothesized that increased levels of electoral competitiveness (assuming this competitiveness will naturally be accompanied by increased campaign activity thus creating an environment of increased political awareness) will result in a higher proportion of the voting population opting to vote early.

Determining status as a battleground state has been measured in numerous ways in the literature. Previous authors have utilized a prior election's margin of victory as a signifier of future competitiveness (Bartels 1991, Kuklinski 1977). Breaking it down further, prior research has utilized two separate measures for determining whether or not a state classified as a battleground state. First, battleground states, or competitive races, are any in which the election was decided by less than five percent difference in the vote margin (Towle, Oakley, and Wassmann 2007). This representation of battleground states was a dichotomous variable. The closeness of each state's election outcome serves as a proxy variable for evaluating the number of visits and campaign dollars spent by candidates (or other campaign activity not officially affiliated with the candidate) in each state.

Secondly, the role of battleground states was observed by measuring the effect of increased electoral competitiveness within a state. The margin of victory from election campaigns has been used to demonstrate competitiveness with the understanding that smaller margins

indicate greater competition while larger margins indicate less competition (Brunell and Buchler 2009, Jackman 1987, Donovan, Tolbert, and Smith 2008). In order to measure the competitiveness, the electoral margin was recorded for each election year. This provides information as to the closeness of the popular vote within each state. States rarely experience a massive shift in terms of the partisanship of citizens. Therefore, it is reasonable to expect that if the last presidential election was a battleground election, then the current one may be as well. This continuous variable is a lagged variable which used the margin of the previous presidential election to examine the impact competitiveness on the proportion of early voters within a state.

For this research, I will be using the continuous variable of electoral competitiveness over the dichotomous variable because it provides more granularity and won't hinder the analysis in the same way a dichotomous variable might. Dichotomizing this variable would require the inclusion of an arbitrary cutoff or 'tipping point' which, given the already limited amount of data available, might not indicate a relationship where one actually exists. I expect that as electoral competitiveness increases (the vote margin narrows⁵), the proportion of early voters in comparison to total voters will also increase.

Alternatively, McDonald (2009) defines a swing state as one that the candidates perceive to be competitive and therefore focus a significant amount of time and money in that state. This conceptualization does not attempt to ascertain how or why candidates perceive a certain state to be competitive, but rather it retroactively assigns battleground status to a state as a result of the level of campaign activity experienced in that state. This retrospective assignment does not present an issue for the current study as this research seeks to measure the result of the increased campaign focus, not the decision-making calculus of the candidates. The latter measure is a better operationalization because it more directly observes campaign activity than the electoral margin

⁵ This data is reported by uselectionatlas.org/RESULTS/.

of victory in a state. However, this information was not readily available and therefore not included as part of the study.

Hypothesis 1: Voters in states classified as battleground states (those experiencing increased electoral competitiveness) will participate in early voting in higher proportions than voters in states which are not classified as battleground states.

Independent Variable (H2) – level of voter turnout:

Existing literature on levels of voter turnout focus primarily on factors that influence voter turnout and what implications turnout has on election outcomes. Some studies take a comparative approach and examine the varying turnout rates among countries. One such study was conducted by Powell (1986). In his study, he determined that the U.S. has low voter turnout when compared to the average rates of turnout in other democracies of similar development. While these studies do not directly relate to the topic at hand, one key takeaway is that the difference between high levels of voter turnout and low levels of voter turnout is not absolute, but relative. This information can be applied to the current study when considering how to operationalize voter turnout. Since what constitutes ‘high’ voter turnout is determined on the basis of other levels of turnout in comparable cases, the concern is how one would aptly set a threshold to distinguish high turnout from low or average turnout.

Keeping in mind the issue described above for determining how to compare various levels of voter turnout, in order to study the impact voter turnout has on the proportion of the population participating in early voting, turnout was configured as a continuous variable where the total number of ballots cast for the highest office was divided by the voting eligible population (VEP)⁶. This measurement is capable of being generalized across states, unlike total voter turnout which would be misleading due to the fact that some states have much larger populations than others. Also, because the raw numbers on turnout were included in the dataset, I

⁶ This information is provided by electproject.org/home/voter-turnout/voter-turnout-data.

included total turnout in a regression model purely for exploratory reasons. However, when I ran a collinearity check it showed a high level of correlation with the variable for Electoral College votes, thus solidifying my decision not to include it in my final model.

I utilized the voting eligible population rather than the voting age population in order to ascertain a more accurate picture of which conditions are related to the choice of citizens to participate in early voting. For example some individuals may be old enough to vote but nonetheless ineligible due to factors such as a felony conviction, status as a non-citizen resident, and so on. Also, rather than attempted to set an arbitrary value for high voter turnout, I chose to examine the percentage of turnout among the eligible voting population as a continuous variable and therefore allow for the level in one state and year to be compared to the levels for other states and years. I anticipate that higher rates of turnout among the voting eligible population will be positively correlated with the proportion of the voting population which chooses to participate in early voting.

Hypothesis 2: State turnout rates among the eligible voting population will be positively correlated with the proportion of voters that choose to participate in early voting in that state.

Control Variables:

This study will be controlling for the following factors: national competitiveness of elections, the length of time a policy providing for early voting has been in effect, the number of Electoral Votes cast by each state, and population density.

National Competitiveness:

In addition to expecting that competitiveness within a single state might influence the proportion of voters who choose to vote early, it is also expected that the overall competitiveness of the election at the national level may play a role. Although it is not a variable of interest, it is anticipated that election years which are more competitive nationally will see an increase in the

proportion of voters which choose to vote early. This variable was measured by recording the final Gallup election survey for every presidential election year. The election surveys conducted by Gallup begin several months prior to the election with the November survey occurring only a few days before the election. These surveys pose the question of which candidate a citizen would most likely vote for in the upcoming election.⁷ I believe this to be a strong operationalization of this variable as historically Gallup polling results have been within a few percentage points of the actual election results.⁸ Also, the perception of a close race itself is likely to increase voter activity, regardless of whether the official elections results indicate a competitive election. Additional measures of election year competitiveness were examined, including those in which states were deemed ‘competitive’ during the election years where the Electoral College vote margin between candidates was less than or equal to ten percent and where the popular vote margin was less than or equal to five percent. However, these different measures of national competitiveness were highly correlated with the Gallup measure and did not add to the overall model.

Policy Age:

It is probable that the longer a policy of early voting has been in effect within a state the more likely it is that voters will be aware of the policy and utilize the opportunity to vote prior to the scheduled Election Day⁹. Therefore, it is expected that as policy age increases the proportion of citizens voting early will also increase. The policy age was calculated according to the first presidential election which provided for an early voting option. For example, the first presidential election in Alaska to offer early voting occurred in 2004. This election was designated with a one

⁷ According to www.gallup.com/poll/110548/gallup-presidential-election-trial-heat-trends.aspx, the question for the 2008 looked like the following: “Suppose the presidential election were held today. If Barack Obama were the Democratic Party’s candidate and John McCain were the Republican Party’s candidate, who would you vote for – [ROTATED: Barack Obama (or) John McCain]?”

⁸ www.gallup.com/poll/9442/election-polls-accuracy-record-presidential-elections.aspx

⁹ <http://www.austincc.edu/cppps/earlyvotingfull/report5.pdf>.

(1) to show that the policy has been in effect for one year. Every subsequent presidential election has an additional four years added to the age (i.e. the 2008 presidential election in Alaska is designated with a five). This measurement does not account for the possibility that an early voting policy was adopted during a non-presidential election year. This is done intentionally as levels of voter turnout decrease in non-presidential elections years and thus these elections would not have the same educative effect on citizens (Gerber, et al. 2009)¹⁰.

Electoral Votes:

The number of electoral votes assigned to each state is an important control variable because, given the nature of the Electoral College, candidates are by necessity more concerned with securing voters in states with a greater number of electoral votes. It is reasonable to suspect that states with a low number of electoral votes will not be treated similarly to states with a high number of electoral votes even if both states are technically battleground states. Therefore, it is expected that states with higher numbers of electoral votes will experience increased campaign activity, turnout, and have a greater proportion of the voting population that chooses to vote early.¹¹

Population Density:

Although population density per se has not specifically been included in previous research, there have been measures to determine the ‘convenience’ of voting. Gronke (2004) hypothesized that “Rates of early voting will be higher for individuals who live in areas with higher average commute times” (p. 17). Results supported this hypothesis, but these findings are severely limited due to the data being limited by a single county in Oregon, a state which employs

¹⁰ This can also be seen in McDonald’s dataset which provides the percentage of the voting eligible population that votes in each state during each election cycle (<http://www.electproject.org/home/voter-turnout/voter-turnout-data>).

¹¹ The number of electoral votes for each presidential election year was retrieved from “The American Presidency Project.”

a vote-by-mail system. Citing himself, Gronke, Galanes-Rosenbaum, and Miller (2007) claimed that early voting is more likely to occur in rural areas as well as states that are larger in size.

This topic is revisited in Gronke, Galanes-Rosenbaum, Miller, and Toffey (2008). Here the authors state that there are distinct regions where non-precinct voting is more likely to occur.¹² Further it is claimed that non-precinct voting “is perhaps more common in states where voters in some cities face both long drives to county offices and long commutes” (p. 440). The basis of a ‘convenience’ effect also finds support in a study which demonstrated that the accessibility of the voting location is significantly related to voter turnout (Gimpel and Schuknecht 2003).

Examining the effect of access to the ballot box on the proportion of the population that chooses to vote early would be most accurately represented by replicating the procedure in Gimpel and Schuknecht (2003). These authors utilized a Geographic Information System to gain an understanding of the distance and amount of time it would take to travel to the polling place in each precinct. However, due to time and data limitations, I am unable to incorporate a Geographic Information System, but instead seek to understand if the ‘convenience’ aspect of early voting affects the proportion of early voters by evaluating the relationship between population density and the proportion of early voters. The population density of a state can, on an aggregate level, indicate the convenience of voting within that state. Some of the states which the literature claims are more likely to utilize early voting, larger states or those with more rural areas, are also more likely to have a lower population density. It is also reasonable to expect that states with lower population densities would face greater challenges in adeptly placing polling locations or in having enough locations. Data on the population density for each state was collected from uselectionatlas.org and is measured in terms of number of people per square kilometer. While this

¹² The authors state that this type of voting is more likely to occur in states classified as southwestern or western.

is one area that would benefit from a closer level examination than statewide density data, it is expected that as population density decreases, the proportion of the population that votes early will increase.

Other Variables:

In addition to the variables described above, there are several other variables which exist in the literature on voter turnout which are not included in this research. Tolbert and Smith (2005) provide data to measure factors such as voter registration requirements, median income, education level, and racial diversity. These measurements have been excluded from the current thesis because while I am in agreement with the authors that these variables should be included in any studying examining the influences voter turnout, I see no reason to expect that this would significantly impact early voting. In other words, these are factors which might reduce the likelihood that a citizen turns out to vote. However, the research question presented in this thesis is concerned with the population that is already turning out to vote, and therefore is focusing on individuals which have already overcome these potential barriers to voting.

SECTION III. CASE SELECTION

The units of analysis included in this study include every presidential year since 1980 and each of the fifty states. The study was restricted to presidential election years because the national scope of the election provides a basis of comparison and also keeps the results generalizable across states. The number of observations available during non-presidential election years would be reduced to states that both have an early voting policy in effect and have a Senate seat up for election. The nature of Senate elections would exclude many states, severely limiting the data and possibly skewing the results.

Further, central to my theory is the idea that the differing levels of competitiveness among the states influences the level of campaigning which in effect creates distinct political

environments. In Senate races, candidates are bound by state boundaries and, while certain areas of the state might receive more campaigning than others, candidates do not pick and choose which states to focus their election efforts. Also, it may be the case that spending and campaign activity are also more robust in battleground states during midterm elections, but it is unlikely to be of the same magnitude as in presidential election years. A presidential election also has the benefit of being more salient as it is a nation-wide election. Burden, Canon, Mayer, and Moynihan (2009) do note that alternative voting methods in midterm elections are primarily useful in retaining voters who may otherwise choose not to vote in a non-presidential election year. However, all things considered, this study will only examine presidential election years. Being fully aware that any significant results yielded in the present study may also have implications for state-wide campaigns, future study in this area may be warranted.

States that have adopted vote-by-mail systems as their sole voting mechanism are excluded from the current research for the years in which their elections have been conducted by mail-in ballot. States falling under this exclusion are Oregon (2000-2012) and Washington (2012). The reason for this decision is that such systems do not provide citizens the option between early voting and voting on Election Day and therefore would not have the same implications for candidates and campaign consultants.

To date, thirty-four states have adopted a policy which allows for in-person early voting¹³. However, states were included in the analysis for the years in which the option to vote early was available to citizens residing in those states (see Table 2 on next page).

¹³ Information provided by the National Conference of State Legislatures (www.ncsl.org).

| <i>Table 2: Trends in Early In-Person Voting - State Policy Information by Election Year</i> | | | | | | | | |
|---|------|------|----------------------|--|--|--|--|--|
| 1980 | 1984 | 1988 | 1992 | 1996 | 2000 | 2004 | 2008 | 2012 |
| | | TX | AZ HI OK TX | AZ CO HI ID NV NM OK TN TX | AZ CO HI ID NV NM NC OK TN TX WI | AK AZ AR CO FL GA HI ID IA NV NM NC ND OK SD TN TX UT WV WI | AK AZ AR CA CO FL GA HI ID IL IN IA KS LA ME NE NV NM NC ND OH OK SD TN TX UT VT WV WI WY | AK AZ AR CA CO FL GA HI ID IL IN IA KS LA ME MD NE NV NJ NM NC ND OH OK SD TN TX UT VT WV WI WY |
| N = 107 Note: The only states that have implemented an early voting policy but no longer have that policy in place are those that switched to a vote-by-mail system. | | | | | | | | |

Three states out of the thirty-four mentioned above did not adopt an early voting policy until after 2012 (Massachusetts, Minnesota, and Montana). Additionally, Colorado switched to a vote-by-mail system after the 2012 election and is therefore is not listed as a vote-by-mail state. This criterion establishes thirty-two states that had enacted early voting policies by and during the

2012 presidential election and ultimately reduces the initial five hundred observations to sixty-seven. For a snapshot of the voting policies in place in each state during the 2012 election, please see Table 3 (below).

| <i>Table 3: Voting Procedure by State in 2012</i> | | | |
|---|------------|------------|------------|
| State | EIP | VBM | NXA |
| Alaska | x | | x |
| Arizona | x | | x |
| Arkansas | x | | x |
| California | x | | x |
| Colorado | x | | x |
| Florida | x | | x |
| Georgia | x | | x |
| Hawaii | x | | x |
| Idaho | x | | x |
| Illinois | x | | x |
| Indiana | x | | |
| Iowa | x | | x |
| Kansas | x | | x |
| Louisiana | x | | |
| Maine | x | | x |
| Maryland | x | | x |
| Nebraska | x | | x |
| Nevada | x | | x |
| New Jersey | x | | x |
| New Mexico | x | | x |
| North Carolina | x | | x |
| North Dakota | x | | x |
| Ohio | x | | x |
| Oklahoma | x | | x |
| South Dakota | x | | x |
| Tennessee | x | | |
| Texas | x | | |
| Utah | x | | x |
| Vermont | x | | x |
| West Virginia | x | | |
| Wisconsin | x | | x |
| Wyoming | x | | x |
| Montana | | | x |
| Alabama | | | |
| Connecticut | | | |
| Delaware | | | |
| Kentucky | | | |
| Massachusetts | | | |
| Michigan | | | |

| | | | |
|--|--|---|---|
| Minnesota | | | |
| Mississippi | | | |
| Missouri | | | |
| New Hampshire | | | |
| New York | | | |
| Pennsylvania | | | |
| Rhode Island | | | |
| South Carolina | | | |
| Virginia | | | |
| Oregon | | x | x |
| Washington | | x | x |
| EIP - Early In-Person NXA - No-Excuse Absentee Traditional VBM – Vote-by-Mail Note: The information presented here is provided by earlyvoting.net/resources/ | | | |

CHAPTER IV

FINDINGS

SECTION I. RESULTS

This chapter of the thesis will focus on the results from the statistical tests conducted to analyze both hypotheses discussed in Chapters 2 and 3. Overall, there were sixty-seven observations included in this analysis due to data limitations on the availability of early voting turnout across states and election years. The early voting turnout divided by the total turnout within a state yielded the proportion of voters which chose to vote early. Across all states and election years included, approximately twenty-eight percent of the population opted to vote prior to Election Day¹⁴.

Correlation Matrix Results:

A correlation matrix was run in order to gain an initial understanding of the relationship between the variables without making any causal inferences. The results from the correlation matrix can be found in Table 4 (next page) and findings for the hypotheses are included below.

¹⁴ This is indicated by a mean of 0.277.

| <i>Table 4: Correlation Matrix</i> | | |
|------------------------------------|--|--------------------|
| Variable 1 | Variable 2 | Coefficient |
| Electoral Competitiveness | Proportion of Early Voting | -0.2958** |
| Number of Electoral College Votes | Electoral Competitiveness | -0.1787*** |
| Number of Electoral College Votes | Percentage of Turnout Among Eligible Voting Population | -0.1148** |
| Population Density | Electoral Competitiveness | -0.28** |
| Population Density | Number of Electoral College Votes | 0.5592*** |
| Age of Early Voting Policy | Proportion of Early Voting | 0.3441*** |
| National Competitiveness | Electoral Competitiveness | -0.0823* |
| *p <0.1 **p <0.05 ***p <0.01 | | |

Hypothesis One:

Hypothesis one stated that there would be a positive relationship between status as a battleground state and the proportion of the voting population which chooses to cast a ballot in-person prior to Election Day. The correlation matrix gave an early indication that there is in fact a statistically significant relationship between electoral competitiveness and the proportion of early voters. This result demonstrated that more competitive elections (those whose race margins are closer to zero) spur early voter turnout with a significance level of 0.015. It is represented as an

inverse relationship in Table 4 (p. 30), signifying that as the electoral margin of the previous presidential election neared zero, the proportion of early voters increased.

Hypothesis Two:

Also included in the study was the hypothesis two's prediction concerning the level of voter turnout. This hypothesis assumes that there will be a positive relationship between the amount of turnout (measured by the percentage of the voting eligible population which cast a ballot for the highest office) and the proportion of the population which chooses to early vote. In essence this hypothesis is seeking to determine whether high levels of voter turnout, regardless of whether an election is competitive, can be a possible explanation for the proportion of the population which chooses to participate in early voting. It is reasonable to expect that the variable for turnout and the variable for proportional early voting turnout might be highly correlated. However, not only is there a weak relationship (-0.09) between the two but the relationship also does not reach statistical significance (0.445).

There were a total of four hundred fifty observations for the percentage of the voting population which cast a ballot. This indicates that data was available for every presidential election ranging from 1980-2012 and for every state. On average, 58.05% of the eligible voting population cast a ballot for president during the election years included. A simple correlation does not extend support for the existence of a relationship between voter turnout and the proportion of early voters.

Other Findings:

In fact, the only correlation with the variable for voter turnout which reaches statistical significance is the variable measuring the number of Electoral College votes. The matrix shows a

weak¹⁵ inverse relationship that as the number of electoral votes increases, the percentage of turnout among the eligible population decreases (see Table 4). This relationship runs counter to what one might expect to find. Equally interesting is the statistically significant inverse relationship between the number of Electoral College votes and electoral competitiveness (see Table 4). These relationships are examined further later in the chapter.

Generalized Linear Model Results:

In order to further explore the relationship between my independent and dependent variables, I chose to run a generalized linear model as my statistical test. This model was the most appropriate fit for a dependent variable which is a proportion and thus bound between the values of zero and one. The results of this model can be found in Table 5 (see below).

| <i>Table 5: Generalized Linear Model Results</i> | |
|---|--|
| Independent and Control Variables | Dependent Variable: Proportion of Early Voters (P Value) |
| Electoral Competitiveness | -0.0282 (0.01) |
| National Competitiveness | 0.1396 (0.575) |
| Percentage of Turnout Among Eligible Voting Population | 0.0037 (0.842) |
| Number of Electoral College Votes | 0.007 (0.524) |
| Population Density | 0.0007 (0.792) |
| Age of Early Voting Policy | 0.0534 (0.011) |
| N = 67 | |

¹⁵ The coefficient is -0.114.

Hypothesis One:

Although the model utilized in this thesis does not provide an easy interpretation of impact, the GLM supports the existence of an inverse relationship between competitive elections and the proportion of early voting. This indicates that as the electoral margin narrows, or gets closer to zero (signifying increasing competitiveness), the proportion of voters choosing to vote early increases. This relationship has statistical significance at the 0.01 level and a coefficient of -0.028^{16} . These results support hypothesis one.

Hypothesis Two:

Returning to hypothesis two, the GLM does not extend support for a relationship between the percentage of eligible voters who vote and the proportion of the population that participates in early voting. This is represented in Table 5. Several studies on convenience voting have explored whether early voting increases voter turnout and concluded with negative results. This test would seem to indicate that not only does early voting not increase overall turnout but overall turnout does not increase the proportion of the voting population that chooses to vote early. There is a lack of support for hypothesis two as it has not been statistically shown that voter turnout does increase the proportion of the population that votes early. The lack of support for hypothesis two lends further support for the theory that it is in fact the competitive environment that is causing a change in the dependent variable.

Other Findings:

The most interesting relationship among my control variables is that between the length of time a policy providing for early voting has been in place and the proportion of the population

¹⁶ See Table 5.

that early votes. I expected a positive relationship between these two variables but the level of significance was surprising. The GLM reported a statistical significance level at 0.011, which strengthened support for a meaningful relationship between these two variables.

In order to supplement understanding of this relationship, I conducted secondary analysis in which policy age was transformed into a dichotomous variable. Policy age was found to not have a normal distribution and a natural break was found in the data between one year and five years¹⁷. Thus, observations where the policy age was greater than or equal to five were coded with a one while all other observations were coded with zero. I then chose to conduct a Wilcoxon-Mann-Whitney (WMN) test because, unlike an independent samples t-test, there is no assumption of normal distribution for the dependent variable. The WMN compares the medians of two independent samples and determines if they are statistically different from one another. The outcome illustrated that there is a statistically significant difference between the effect that policy age has on the proportion of early voters based on whether it is the first election that policy has been in place or if the policy has been in effect for one or more previous elections. Noting that there is support that these two samples are different from one another, comparing the rank sum to the expected sum will indicate in what way the two samples are different. The test shows that policies that have been in effect for more than one presidential election have a higher actual rank than their expected rank, meaning the proportion of early voters tends to be higher the longer an early voting policy has been in effect. These results are significant at the 0.01 level and can be seen in Table 6 (next page).

¹⁷ See Figure 1 in the Appendix.

| <i>Table 6: Wilcoxon-Mann-Whitney Test</i> | | | |
|--|------------------------|----------|--------------|
| Length of Time Policy has been in Effect | Number of Observations | Rank Sum | Expected Sum |
| 0 | 14 | 293 | 476 |
| 1 | 53 | 1985 | 1802 |
| Combined | 67 | 2278 | 2278 |
| P value = 0.0048 | | | |

To explore this relationship even more, I ran the GLM again and excluded the variable policy age. This resulted in increased statistical significance (0.005) being assigned to the variable of electoral competitiveness¹⁸. Moreover, the Wilcoxon-Mann-Whitney test demonstrated that the length of time a policy has been in place plays a more significant role when the number of years is five or greater. When the continuous variable for policy age was replaced in the GLM with the dichotomous variable, the statistical significance increased from the 0.011 level to the 0.001 level and has a high coefficient of 0.97. The statistical significance of the electoral competitiveness variable also increased from 0.01 to 0.006. These results are shown in Table 7 (below).

¹⁸ The initial level of statistical significance for electoral competitiveness was 0.01.

| <p><i>Table 7: Generalized Linear Model Results (2)</i></p> <p><i>Note: The continuous variable “Policy Age” has been replaced with the dichotomous variable “Policy Length”</i></p> | |
|--|--|
| Independent and Control Variables | Dependent Variable: Proportion of Early Voters (P Value) |
| Electoral Competitiveness | -0.0294 (0.006) |
| National Competitiveness | 0.1571 (0.502) |
| Percentage of Turnout Among Eligible Voting Population | -0.0037 (0.832) |
| Number of Electoral College Votes | 0.0133 (0.214) |
| Population Density | -0.0001 (0.967) |
| Length of Time of Early Voting Policy | 0.9711 (0.001) |
| N = 67 | |

Overall the results from this study indicate that a competitive electoral environment as well as the age of early voting policies are related to the proportion of voters which choose to vote early. These relationships are significant despite considering other factors such as overall voter turnout, the competitiveness of the elections nationally, the number of Electoral College votes assigned to each state and so on. As was shown, there is a strong, statistically significant relationship between the length of time a policy has been in effect and the proportion of early voters. The results of these tests suggest that policy age is exceptionally important when discussing early voting behavior and future studies on early voting should include it in their models. Not including this variable may attribute statistical significance where it is not warranted. These studies should also consider that the effect of a new policy on the proportion of early voters is significantly different from an effect of a policy that has been in place for more than one presidential election.

None of the other control variables were found to be statistical significant in the model. Unfortunately, in addition to the GLM not having a measure of impact, this model also does not provide an r-squared value. Therefore, I cannot state with certainty that this model was the best fit for the data or how much of the variance in the dependent variable is attributable to the independent variables.

SECTION II. DISCUSSION

I am extremely grateful and indebted to Dr. Paul Gronke for sending me the dataset utilized in his 2007 article “Early Voting and Turnout.” However, I still faced limitations in the amount of data available for this research. It was expected that the number of observations for early voting turnout would be limited as this form of voting is relatively new and not yet in place in every state. This data was further restricted as not every state has previous election information readily available. Additionally, states that do have this information available do not always distinguish between the different forms of voting but rather report overall ballot totals.

As mentioned previously in the discussion of how to best operationalize battleground states, for this study I was unable to measure battleground states in terms of the amount of campaign dollars spent within a state or the number of visits that candidates made to each state. Another method utilized by scholars for determining battleground status is accessing the Cook Political Report rankings (Druckman, Kifer, and Parkin 2009). These rankings list states as being likely to support a particular party, leaning toward a particular party, or toss-up. Scholars then code these rankings into a categorical variable measurement. I believe this is a good measurement as candidates and staff must rely on polling numbers prior to the election date in order to strategize their efforts. Rankings, such as the Cook Political Report, give crucial insight into the electoral environment within each state leading up to the election rather than determining post-hoc which states were competitive. Further, analysis of the accuracy of the Cook Political Report

rankings has shown that this data is highly reliable and reflective of the eventual results¹⁹.

However, the cost of accessing this data was prohibitive to its inclusion in this thesis.

With the above limitations in mind, the statistical results found in this study further our understanding of early voting and the conditions under which it is most likely to occur in several ways. First, support was found for hypothesis one which strengthens the theory that increased electoral competitiveness within a state increases the number of people who turn out to early vote in relation to the total voting population. The statistically significant negative correlation between a state's competitiveness, as measured by the electoral margin of the previous presidential election vote total, indicates that as the margin decreases, the proportion of early voting increases. During their campaigns, candidates may need to make strategic decisions as to where they will target early voters and to what degree. This result aids candidates and staff by giving them an expectation for a predicted outcome. If a candidate's electoral success hinges upon being able to influence early voters, their efforts would be maximized by focusing on battleground states as it is these competitive states which will see early voting in the highest proportions.

Additionally, I was not able to find any support for hypothesis two. In other words, I could not with any statistical certainty state that the proportion of early voters is related to the proportion of the eligible voting population that turns out to vote. This is contrary to my expectation that as a greater percentage of the eligible population turns out to vote, the proportion that turns out to early vote will also increase. While these two variables were only weakly correlated,²⁰ there may be some collinearity issues that could not be detected with a simple correlation matrix. Alternatively, if the level of turnout truly doesn't impact the proportion of voters which choose to turnout early, this strengthens the emphasis on the relationship between the competitive electoral environment and the proportion of early voting. This potentially

¹⁹ Information on accuracy is available at cookpolitical.com/about/accuracy.

²⁰ Correlation of -0.09 with a p-value of 0.445.

provides a crucial insight into what it is specifically about the competitive environment that increases the proportion of early voters. The results regarding the second hypothesis would seem to suggest that it is more a matter of increased levels of awareness and information rather than increased levels of turnout.

In hypothesis one, electoral competitiveness serves as a proxy measure for overall campaign activity and the increased awareness among voters in a competitive environment. There is much research which lends support for the relationship between a competitive election environment/increased campaign activity and overall turnout. However, the research presented in this thesis shows that between these two variables, the measure of electoral competitiveness is a better predictor of the proportion of early voting than the turnout rate of the eligible voting population.

An interesting relationship was also found between the number of Electoral College votes and competitiveness. Competitiveness has many layers and prior academic work has pointed to the unique effect that the Electoral College has on determining which states are competitive. Due to the nature on winner-takes-all elections, this places uneven weight of states that are considered to be ideological toss-ups. It seems that in order to garner national attention, Electoral College votes alone will not suffice. To illustrate this point, I have included Table 8 (next page).

Table 8 shows that candidates typically spend more in states with more electoral votes. In fact, when the nine states from the 2012 election are listed in order based on their number of votes, this order is almost identical to when these states are ordered based on candidate spending. However, it is important to note that this is only true for states which were classified as battleground states²¹. The emphasis on electoral competitiveness cannot be overstated as four of

²¹ www.politico.com.

the top five states²² with the highest number of electoral votes did not make the list of the thirteen states that the International Business Times reported as having received the most spending on campaign advertisements. Additionally, while these 2012 battleground states only comprised 20.4% of the total of Electoral College votes, they received 94.6% of the total amount of campaign dollars spent toward political advertisements.

| <i>Table 8: Relationship Between Competitiveness and Electoral College Votes</i> | | |
|---|--------------------------------|---|
| <i>2012 Presidential Election</i> | | |
| Battleground States | Electoral College Votes | Amount Spent on Campaign Ads in millions (Ranking) |
| Florida | 29 | \$117.4 (1) |
| Ohio | 18 | \$112.1 (2) |
| North Carolina | 15 | \$56.5 (4) |
| Virginia | 13 | \$85.7 (3) |
| Wisconsin | 10 | \$8.1 (10) |
| Colorado | 9 | \$54.2 (5) |
| Iowa | 6 | \$46.6 (6) |
| Nevada | 6 | \$38.2 (7) |
| New Hampshire | 4 | \$25.3 (8) |
| <p>Note: The list of battleground states was retrieved from politico.com/2012-election/swing-state/</p> <p>The amount spent on campaign advertisements was published by “International Business Times” which obtained its information from SMG Delta, a firm that tracks advertisement spending.</p> | | |

²² Florida makes the list and is ranked number four in terms of highest number of Electoral College votes.

Further, the impact of Electoral College votes diminishes in comparison to competitiveness when it comes to examining the amount candidates spend on advertisements. This can be seen in the case of New Hampshire. Although this state is ranked forty-second in terms of Electoral College votes, it received the eighth highest amount of spending on campaign advertisements. To look at this another way, New Hampshire possesses 0.7% of the total number of Electoral College votes but received 4.6% of the total amount spent toward campaign advertisements. However, it should be acknowledged that some of the increased attention focused on New Hampshire may also be a result of the fact that it is the second earliest primary election that takes place²³. Therefore, it can difficult to assess whether the competitive environment influences campaign spending or if increased campaign spending (due to candidates wanting to secure a strong start for the primary election season) influences the competitiveness of the environment.

I have gone to such lengths to demonstrate the necessity of considering both a battleground state and having a considerable number of electoral votes in an attempt to better understand why there might have been inverse relationships between the number of electoral votes and competitiveness as well as electoral votes and the percentage of the eligible population that turns out to vote. Given the above information, I believe that states which have a large number of electoral votes (such as California, Texas, New York, and Illinois), but are not as electorally competitive, may be skewing the results. However, it has been shown that it may also be worthwhile to consider grouping states by region (Gronke, et al. 2008). It was important to probe further into these relationships as future researchers may want to consider including controls in their studies²⁴.

²³ Iowa has the earliest primary.

²⁴ Statistically significant relationships were found between other variables during the course of this study. These are indicated in Table 4.

Policy age was not one of my variables of interest, but it turned out to be a significant control variable. It is worth noting that the GLM model indicates that policy age is almost identical to electoral competitiveness in terms of significance²⁵. This indicates that as the number of years an early voting policy has been in place increases, the proportion of early voting also increases. These findings support the theory that the length of time an early voting policy has been in place, the more likely voters are to utilize that policy.

Overall, the results demonstrate support for hypothesis one indicating that as electoral competitiveness within states increases so does the proportion of early voters. There was a lack of support for the second hypothesis which suggests there is not a significant relationship between the overall turnout within a state and the proportion of early voters. Examination of some of the control variables was important as the results may point toward the continued inclusion of policy age and the need to include additional measures for examining the impact of the number of Electoral College votes as well as region.

²⁵ 0.011 and 0.010 respectively.

CHAPTER V

CONCLUSION

SECTION I: CONTRIBUTION

The research and findings presented in this thesis serve as a significant contribution to the literature for several reasons. First, this study is novel in that no other academic source has previously explored the factors that influence the proportion of voters that choose to vote early. Rather, studies on early voting have focused almost exclusively on how early voting, once adopted and implemented, affects turnout levels within a state or whether there are characteristic differences between the type of individuals who choose to early vote compared to those who wait until Election Day to cast a ballot. This being the case, the findings presented in this thesis are likely the first in existence on the study of the predictors for early voting. Now, future research on this topic will be able to use this study as a launching point for determining how to conceptualize and operationalize certain variables, which variables should be included for control purposes, and strengthening what is known about the political and policy conditions that make individuals more likely to vote early.

Second, this research, as well as any research which may follow, has important practical implications for campaigns and candidates. Presidential election campaigns commonly exceed a billion dollars in expenditures associated with campaigning whether these expenditures are those directly under the candidates control or from outside sources such as PACs. With so much at

stake, in terms of both money and eventual electoral success, the findings of this research effort can be utilized by those wishing to construct as fruitful a campaign strategy as possible.

Traditionally, campaign expenditure data would show spikes in spending around the two week mark preceding the election. However, as early voting policies continue to be adopted in more and more states, candidates have begun adapting their campaign tactics to account for this. After all, the impact of an influential advertisement is going to be unavoidably mitigated if a large sector of the voting population has already made their decision and cast their ballot.

Candidates and campaigns are also experiencing the necessity to campaign longer and spend more campaign dollars. An example from real life is the scheduling of the National Convention for each party. Both parties are hosting their conventions approximately six weeks earlier in 2016 than they were held in 2012. This gives the emerging candidate and running mate longer to campaign as the official representative of the party and gives them more time to connect with potential early voters. If the proportion of the voting population that is choosing to vote early continues to increase, the longer campaign season and greater expenditures will only become more of a reality for candidates.

SECTION II. FUTURE RESEARCH

This thesis was a first approach at analyzing a subject previously unstudied by the literature. Going forward, however, there are a number of ways to advance the current research. First, as alluded to previously, it may be important for future studies to control for non-competitive states that have a large number of Electoral College votes in order to better understand how the number of Electoral College votes influences early voting. In addition to states that are non-competitive, there are also those which historically experience lower levels of voter turnout and therefore may need to be considered as a control variable.

Improvements could be made in regards to the total number of observations by doing a closer level examination than states by instead focusing on the county or precinct level. Additionally, if spending money on the project is not a concern, one could purchase the Cook Political Report rankings and create a variable of competitiveness using their data. In order to truly understand the effect of campaign activity (such as expenditures, advertisements, visits) future research could supplement the dataset to include this information. Other considerations that could be included in the study are the presence of ballot initiatives (such as the presence of a marijuana initiative in the state of Colorado in 2012) and the presence of other races (for example, if it happened to be a gubernatorial election year in a particular state). Lastly, the research presented in this thesis focused on whether or not a state has a policy that allows early-in person voting. Future studies could take this one step further and examine factors such as the total number of days allotted for early voting, the number of days between the close of early voting and the scheduled Election Day, and whether the early voting policy provides for same-day registration.

REFERENCES

- ‘Accuracy.’ 2008. *Cook Political Report*. <http://cookpolitical.com/about/accuracy>.
- Aldrich, John H. 1993. ‘Rational Choice and Turnout.’ *American Journal of Political Science* 37(1).
- Alvarez, R. M., I. Levin, and J. A. Sinclair. 2011. ‘Making Voting Easier: Convenience Voting in the 2008 Presidential Election.’ *Political Research Quarterly* 65(2): 248–62.
- Bartels, Larry M. 1991. ‘Constituency Opinion and Congressional Policy Making: The Reagan Defense Build up.’ *The American Political Science Review* 85(2): 457–74.
- Berinsky, A. J. 2005. ‘The Perverse Consequences of Electoral Reform in the United States.’ *American Politics Research* 33(4): 471–91.
- Brunell, Thomas L., and Justin Buchler. 2009. ‘Ideological Representation and Competitive Congressional Elections.’ *Electoral Studies* 28(3): 448–57.
- Burden, B., D. Canon, K. Mayer, and D. Moynihan. 2009. ‘The Effects and Costs of Early Voting, Election Day Registration, and Same Day Registration in the 2008 Elections.’ *Report presented to the Pew Charitable Trusts*.

- Cebula, Richard J., Christopher M. Duquette, and Franklin G. Mixon. 2013. 'Battleground States and Voter Participation in US Presidential Elections: An Empirical Test.' *Applied Economics* 45(26): 3795–99.
- Cebula, Richard J., and Holly Meads. 2007. 'The Electoral College System, Political Party Dominance, and Voter Turnout, with Evidence from the 2004 Presidential Election.' *Atlantic Economic Journal* 36(1): 53–64.
- Donovan, Todd, Caroline J. Tolbert, and Daniel A. Smith. 2008. 'Priming Presidential Votes by Direct Democracy.' *The Journal of Politics* 70(4): 1217–31.
- Druckman, James N., Martin J. Kifer, and Michael Parkin. 2009. 'Campaign Communications in U.S. Congressional Elections.' *American Political Science Review* 103(03).
- Erikson, Robert S. 1981. 'Why Do People Vote? Because They Are Registered.' *American Politics Quarterly* 9(3): 259–76.
- Gallup, Inc. 2011. 'Gallup Presidential Election Trial-Heat Trends, 1936-2008.' *Gallup*.
<http://www.gallup.com/poll/110548/gallup-presidential-election-trial-heat-trends.aspx>.
- Gallup, Inc. 2012. 'Election Polls -- Accuracy Record in Presidential Elections.' *Gallup*.
<http://www.gallup.com/poll/9442/election-polls-accuracy-record-presidential-elections.aspx>.
- Gerber, A. et al. 2009. 'Using Battleground States as a Natural Experiment to Test Theories of Voting.' *Paper prepared for the Annual Meeting of the American Political Science Association*.
- Gerber, Alan S., Donald P. Green, and Christopher W. Larimer. 2008. 'Social Pressure and Voter Turnout: Evidence from a Large-Scale Field Experiment.' *American Political Science Review* 102(01).
- Gerber, Alan S., and Donald P. Green. 2000. 'The Effects of Canvassing, Telephone Calls, and Direct Mail on Voter Turnout: A Field Experiment.' *The American Political Science Review* 94(3): 653–63.

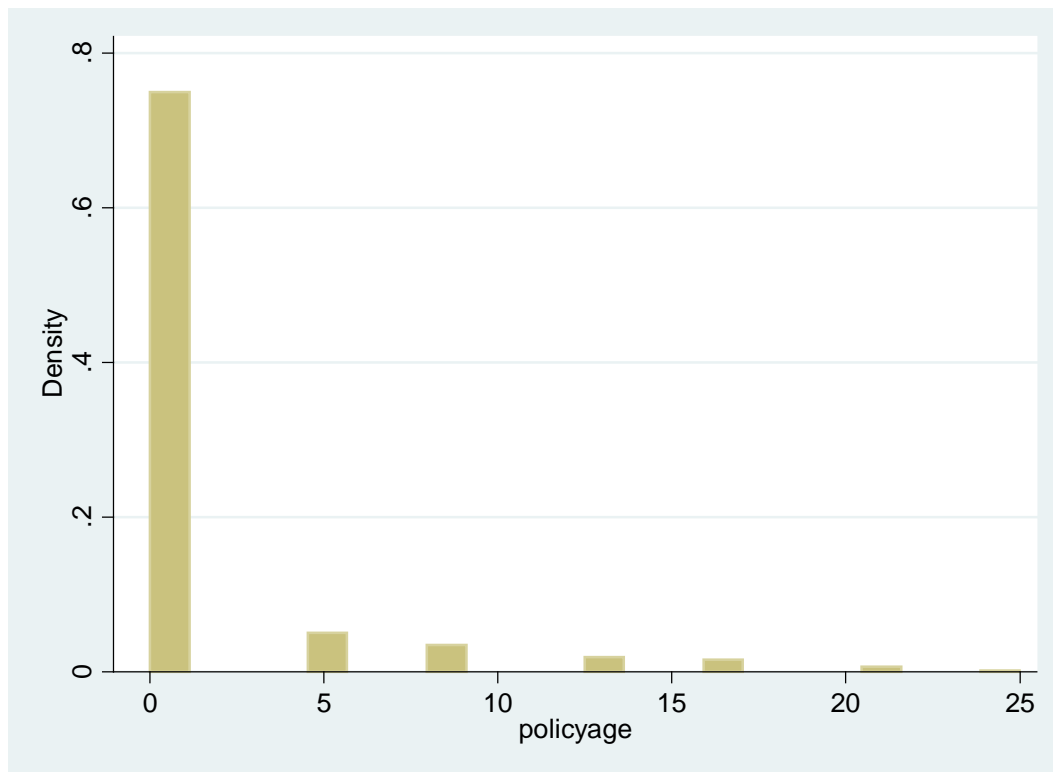
- Gimpel, J.G., and J.E. Schuknecht. 2003. 'Political Participation and the Accessibility of the Ballot Box.' *Political Geography* 22(5): 471–88
- Gimpel, James G., Karen M. Kaufmann, and Shanna Pearson-Merkowitz. 2007. 'Battleground States versus Blackout States: The Behavioral Implications of Modern Presidential Campaigns.' *The Journal of Politics* 69(3): 786–97.
- Gronke, P. 2004. 'Early Voting Reforms and American Elections.' *Paper prepared for the Annual Meeting of the American Political Science Association.*
- Gronke, P., B. Bishin, D. Stevens, and E. Galanes-Rosenbaum. 2005. 'Early Voting in Florida, 2004.' *Paper prepared for the Annual Meeting of the American Political Science Association.*
- Gronke, Paul, Eva Galanes-Rosenbaum, Peter A. Miller, and Daniel Toffey. 2008. 'Convenience Voting.' *Annual Review of Political Science* 11(1): 437–55.
- Gronke, Paul, Eva Galanes-Rosenbaum, and Peter A. Miller. 2007. 'Early Voting and Turnout.' *PS: Political Science and Politics* 40(04): 639–45.
- Haag, Stefan D. 2010. *Early Voting in Texas: What Are the Effects.*
<http://www.austincc.edu/cppps/earlyvotingfull/report5.pdf>.
- Hill, D., and Seth C. McKee. 2005. 'The Electoral College, Mobilization, and Turnout in the 2000 Presidential Election.' *American Politics Research* 33(5): 700–725.
- Holbrook, Thomas M., and Scott D. McClurg. 2005. 'The Mobilization of Core Supporters: Campaigns, Turnout, and Electoral Composition in United States Presidential Elections.' *American Journal of Political Science* 49(4).
- Hubler, Katy Owens, and Deb Parker. 2016. 'Absentee and Early Voting.'
<http://www.ncsl.org/research/elections-and-campaigns/absentee-and-early-voting.aspx>.
- Jackman, Robert W. 1987. 'Political Institutions and Voter Turnout in the Industrial Democracies.' *The American Political Science Review* 81(2): 405.

- Karp, J. A., and S. A. Banducci. 2001. 'Absentee Voting, Mobilization, and Participation.' *American Politics Research* 29(2): 183–95.
- Kelley, Stanley, Richard E. Ayres, and William G. Bowen. 1967. 'Registration and Voting: Putting First Things First.' *The American Political Science Review* 61(2): 359–79.
- Kousser, T., and M. Mullin. 2007. 'Does Voting by Mail Increase Participation? Using Matching to Analyze a Natural Experiment.' *Political Analysis* 15(4): 428–45.
- Kuklinski, James H. 1977. 'District Competitiveness and Legislative Roll-Call Behavior: A Reassessment of the Marginality Hypothesis.' *American Journal of Political Science* 21(3): 627–38.
- Leip, David. 'Dave Leip's Atlas of U.S. Presidential Elections.'
<http://uselectionatlas.org/RESULTS/>.
- McDonald, Michael P. 2009. 'The Return of the Voter: Voter Turnout in the 2008 Presidential Election.' *The Forum* 6(4): 1–10.
- McDonald, Michael. 'Voter Turnout Data - United States Elections Project.' *United States Elections Project*. <http://www.electproject.org/home/voter-turnout/voter-turnout-data>.
- Neeley, Grant W., and Lilliard E. Richardson. 2001. 'Who Is Early Voting? An Individual Level Examination.' *The Social Science Journal* 38(3): 381–92.
- Peters, Gerhard, and John T. 1999. 'Presidential Elections.' *The American Presidency Project*.
<http://www.presidency.ucsb.edu/elections.php>.
- Powell, G. Bingham. 1986. 'American Voter Turnout in Comparative Perspective.' *The American Political Science Review* 80(1): 17–43.
- 'Resources.' *Early Voting Information Center*. <http://earlyvoting.net/resources/>.
- Rosenstone, Steven J., and Raymond E. Wolfinger. 1978. 'The Effect of Registration Laws on Voter Turnout.' *The American Political Science Review* 72(1): 22–45.
- Shaw, Daron R. 2006. *The Race to 270: The Electoral College and the Campaign Strategies of 2000 and 2004*. Chicago: University Of Chicago Press.

- Stein, Robert M. 1998. 'Introduction: Early Voting.' *Public Opinion Quarterly* 62(1): 57–69.
- 'Swing-State Map, List & Polls.' 2013. *POLITICO*. <http://www.politico.com/2012-election/swing-state/>.
- 'The U.S. Election Assistance Commission (EAC).' 2016.
http://www.eac.gov/research/election_administration_and_voting_survey.aspx.
- Timpone, Richard J. 1998. 'Structure, Behavior, and Voter Turnout in the United States.' *The American Political Science Review* 92(1): 145–58.
- Tolbert, C. J., and D. A. Smith. 2005. 'The Educative Effects of Ballot Initiatives on Voter Turnout.' *American Politics Research* 33(2): 283–309.
- Towle, M., M. Oakley, and A. Wassmann. 2009. 'The Effect of the Electoral College on Political Knowledge and Trust-in-Government in Competitive and Non-Competitive States.' *Paper presented at the Annual Meeting of the Midwest Political Science Association 67th Annual National Conference*.
- White, Jeremy. 2012. 'State by State Breakdown of Presidential Campaign Spending Reveals Surprises.' *World*. <http://www.ibtimes.com/state-state-breakdown-presidential-campaign-spending-reveals-surprises-782497>.
- Wolak, J. 2006. 'The Consequences of Presidential Battleground Strategies for Citizen Engagement.' *Political Research Quarterly* 59(3): 353–61.

APPENDIX I

Figure 1: *Histogram of Policy Age*



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