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ACCESSIBLE ELECTORAL SYSTEMS: STATE REFORM LAWS, ELECTION ADMINISTRATION, AND VOTER TURNOUT

by

Michael James Ritter

A thesis submitted in partial fulfillment of the requirements for the Doctor of Philosophy degree in Political Science in the Graduate College of The University of Iowa

August 2017

Thesis Supervisor: Professor Caroline J. Tolbert

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Graduate College The University of Iowa Iowa City, Iowa

CERTIFICATE OF APPROVAL

PH.D. THESIS

This is to certify that the Ph.D. thesis of

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has been approved by the Examining Committee for the thesis requirement for the Doctor of Philosophy degree in Political Science at the August 2017 graduation.

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To my parents, brother, and Laura

ACKNOWLEDGEMENTS

I want to thank my advisor, Caroline Tolbert, and the rest of my dissertation committee – Rene Rocha, Julie Pacheco, Fred Solt, and Frank Durham – for invaluable feedback, advice, and support.

ABSTRACT

Compared to most Western democracies, voter turnout in the United States is consistently lower. Individuals from disadvantaged groups such as the poor are also less likely to vote than more affluent citizens. To counteract these trends, American state governments since the 1970s have adopted election reform laws (early voting, no-excuse absentee or mail voting, and Same Day Registration [SDR] voting) to make voting easier for the citizen. Paradoxically, most research on election reform laws has found that these laws have a minimal effect on turnout, and do not reduce disparities between more and less advantaged voting groups. This study argues that past studies have not properly accounted for features of a state's electoral system – combinations of voting reform laws, election administration, and history of turnout – that structure the impacts of these laws on turnout. The goal of this research is to re-evaluate the performance of these election reform laws by contextualizing the laws in a state's electoral system.

This study makes several unique contributions to the literature on election reform laws. First, convenience voting laws and state election administration are reframed as components of the overall accessibility of a state's electoral system. Using a policy feedback framework, this reframing recognizes how citizens, political campaigns, and accessible electoral systems shape turnout. The study then evaluates the effects of accessible electoral systems on overall turnout, and turnout among the poor. Additionally, this project analyzes how these laws structure the mobilization strategies of political campaigns. Finally, this research utilizes two large datasets containing millions of respondents from all fifty American states (Catalist and the Cooperative Congressional Election Study) with advanced statistical methods to assess the effects of these laws at the individual level in the 2008-2014 midterm and presidential elections. After controlling for the accessibility of state electoral systems, this research finds that convenience voting laws do increase turnout, encourage participation from the least likely voting groups, motivate campaigns to mobilize voters, and reduce turnout inequality.

iv

PUBLIC ABSTRACT

Why have state convenience voting (absentee/mail voting, early voting, and Same Day Registration [SDR]) laws had such a limited impact on voter turnout and turnout inequality? Although SDR has been shown to have modest effects, data limitations have prevented us from understanding the true effects of these laws, especially on political participation of the poor. Previous research has not used large sample population data to study voting decisions over time and it does not measure the impact of multiple state voting laws simultaneously; overall election system features that include the laws and administration are have also been overlooked. A policy feedback approach is used to develop the concept of state "accessible voting systems." This concept is proxied by election administration performance (Pew), historical turnout, and combinations of voting laws. Very large sample survey and population data (2015 Catalist, and 2008-2014 CCES) with millions of individuals are merged with state level data. Panel data and statistical matching (CEM) are used to develop improved models. Results show early voting, largely dismissed in the literature, increases turnout in midterm elections, and even participation by the poor. No-excuse absentee or mail voting also helps convert the poor into voters in presidential elections. SDR has the greatest effect in increasing overall turnout and the turnout of the poor in midterm and presidential elections. Overall election administration system features matter independently, increasing participation. The study finds state accessible voting laws have benefits for American democracy.

TABLE OF CONTENTS

LIST OF TABLES	viii
LIST OF FIGURES	xi
Chapter 1	1
Accessible Voting: State Electoral Systems and Voter Turnout	1
Limitations of previous work	6
Unpacking Accessible Voting	
Descriptive Patterns	
Components of State Electoral Systems	
Accessible Voting Model	
Chapter Outline	
Chapter 2	
Accessible Voting and Turnout across American State Electoral Contexts	
Identifying the Effects of Convenience Voting Laws	
Models of Convenience Voting	
Accessible Voting and Voter Turnout	
Research Hypotheses	
Research Design	
Data and Methods	
Results and Analysis	41
Conclusion	
Chapter 3	
Poor Turnout and Accessible Voting	
Accessible Voting Systems and the Poor	
The Case: Poor Participation	
Poor Participation and Convenience Voting Laws	
Poor Participation and Election Administration	
Research Hypotheses	
Data and Methods	
Results and Analysis	
Conclusion	
Chapter 4	
Accessible Voting and Campaign Mobilization	
Direct Mobilization	

Direct Mobilization and Widening Participation	
Election Reform Laws and Party Campaign Strategy	
Research Hypotheses	
Data and Methods	
Results and Analysis	90
Conclusion	
Chapter 5	
Accessible Voting and Modes of Voting	
State Election Administration and Methods of Casting Ballots	111
Research Hypotheses	117
Data and Methods	117
Results	119
Conclusion	
Chapter 6	
Conclusion	
Appendix A: Literature on Convenience Voting	
Appendix B: Control Variable Coding	139
Appendix C: Full Models	140
Chapter 2: Full Catalist Models	140
Chapter 3: Full Catalist Models	148
Chapter 4: Full CCES Models	154
Chapter 5: Full Catalist Models	
Appendix D	
Chapter 2 CEM Models	
Chapter 3 CEM Models	
Chapter 4 CEM Models	
Appendix E	
Notes	
References	216

LIST OF TABLES

Table 1-1: Election Laws and Administration in the American States	14
Table 1-2: Pearson Correlations between State VAP, EPI, and Election Reform Law	17
Table 2-1: Study Research Design	
Table 2-2: Individual Likelihood of Voting in 2014 Midterm Election	44
Table 2-3: Change in Likelihood of Voting from 2010 to 2014	46
Table 2-4: Individual Likelihood of Voting in 2012 Presidential Election	48
Table 2-5: Change in Likelihood of Voting from 2008 to 2012.	
Table 2-6: Election Laws with Statistically Significant Effects on Turnout	52
Table 3-1: Poor Person Likelihood of Voting in 2014 Midterm Election.	70
Table 3-2: Change in Poor Person Likelihood of Voting from 2010 to 2014.	72
Table 3-3: Poor Person Likelihood of Voting in 2012 Presidential Election	74
Table 3-4: Change in Poor Person Likelihood of Voting from 2008 to 2012	76
Table 3-5: Election Laws with Statistically Significant Effects on Turnout among Poor	
Table 4-1: Individual Likelihood of Being Contacted by Campaign in 2010 and 2014	92
Table 4-2: Poor Person Likelihood of Being Contacted in 2010 and 2014.	
Table 4-3: Individual Likelihood of Being Contacted by Campaign in 2012	96
Table 4-4: Poor Person Likelihood of Being Contacted in 2012.	
Table 4-5: Probability of Voting for Respondents Who Were and Were Not Contacted	102
Table 4-6: Campaign Effect on Voting in 2012 Presidential Election.	104
Table 4-7: Election Laws with Statistically Significant Effects on Mobilization	108
Table 5-1: Comparing Catalist and CCES Measures.	118
Table 5-2: Change in Individual Likelihood of Using Voting Method	120
Table 5-3: Change in Individual Likelihood of Using Voting Method	124
Table 6-1: Key Accessible Voting Results from Each Chapter.	131

Table 6-2: Election Laws with Statistically Significant Effects on Turnout	133
Table 6-3: Election Laws with Statistically Significant Effects on Poor Turnout	133
Table 6-4: Election Laws with Statistically Significant Effects on Mobilization	133
Table 6-5: Election Laws and Administration Coefficients with Statistically Significant Effects	134
Table 6-6: Election Laws and Administration Coefficients with Statistically Significant Effects	134
Table A1-1: Categorizing the Literature on Election Reform Laws	138
Table C2-1: Individual Likelihood of Voting in 2014 Midterm Election	140
Table C2-2: Change in Likelihood of Voting from 2010 to 2012	142
Table C2-3: Individual Likelihood of Voting in 2012 Presidential Election	144
Table C2-4: Change in Likelihood of Voting from 2008 to 2012	146
Table C3-1: Poor Person Likelihood of Voting in 2014 Midterm Election	148
Table C3-2: Change in Poor Person Likelihood of Voting from 2010 to 2014	150
Table C3-3: Poor Person Likelihood of Voting in 2012 Presidential Election	152
Table C3-4: Change in Poor Person Likelihood of Voting from 2008 to 2012	153
Table C4-1: Individual Likelihood of Being Contacted by Campaign in 2010 and 2014	154
Table C4-2: Poor Person Likelihood of Being Contacted in 2010 and 2014	156
Table C4-3: Individual Likelihood of Being Contacted by Campaign in 2012	158
Table C4-4: Poor Person Likelihood of Being Contacted in 2012.	160
Table C5-1: Change in Individual Likelihood of Using Vote Method from 2008 to 2012	162
Table C5-2: Change in Individual Likelihood of Using Vote Method from 2010 to 2014	164
Table D2-1: Sample Treatment Effects of Early Voting on Individual Likelihood of Voting	171
Table D2-2: Sample Treatment Effects of Absentee/Mail Voting.	173
Table D2-3: Sample Treatment Effects of SDR Voting on Individual Likelihood of Voting	175
Table D2-4: Sample Treatment Effects of Early Voting on Individual Likelihood of Voting	177
Table D2-5: Sample Treatment Effects of Absentee/Mail Voting.	179
Table D2-6: Sample Treatment Effects of SDR Voting on Individual Likelihood of Voting	181

Table D3-1: Sample Treatment Effects of Early Voting on Poor Individual Turnout	
Table D3-2: Sample Treatment Effects of Absentee/Mail Voting	190
Table D3-3: Sample Treatment Effects of SDR Voting on Poor Individual Turnout	191
Table D3-4: Sample Treatment Effects of Early Voting on Poor Individual Turnout	192
Table D3-5: Sample Treatment Effects of Absentee/Mail Voting	193
Table D3-6: Sample Treatment Effects of SDR Voting on Poor Individual Turnout	194
Table D4-1: Early Voting Sample Treatment Effect on Campaign Contact in 2010 and 2014	198
Table D4-2: Early Voting Sample Treatment Effect on Campaign Contact in 2012	200
Table D4-3: Absentee/Mail Voting Sample Treatment Effect on Campaign Contact	
Table D4-4: Absentee/Mail Voting Sample Treatment Effect on Campaign Contact	
Table D4-5: SDR Sample Treatment Effect on Campaign Contact in 2010 and 2014	206
Table D4-6: SDR Sample Treatment Effect on Campaign Contact in 2012	
Table E5-1: Multinomial Analysis on Change in Individual Likelihood	210
Table E5-2: Multinomial Analysis on Change in Individual Likelihood	212

LIST OF FIGURES

Figure 1-1: Funnel of Convenience Voting Laws	11
Figure 1-2: Election Reform Laws by States	16
Figure 1-3: VAP-EPI Level and Number of Convenience Voting Laws by State	18
Figure 1-4: Model of Impact of State's Voting Laws	19
Figure 2-1: Variation in State Election Performance Index	28
Figure 2-2: Individual Likelihood of Voting in 2014 Election, varying SDR	45
Figure 2-3: Individual Likelihood of Voting in 2014 Election, varying State VAP-EPI	45
Figure 2-4: Probability of Converting from Non-Voter in 2010 to Voter in 2014	47
Figure 2-5: Probability of Converting from Non-Voter in 2010 to Voter in 2014	47
Figure 2-6: Probability of Converting from Non-Voter in 2010 to Voter in 2014	47
Figure 3-1: Turnout across Income Groups in 2012 Presidential Election	55
Figure 3-2: Turnout across Income Groups in 2014 Midterm Election	56
Figure 3-3: Percent in Poverty across American Counties, 2011-2015	57
Figure 3-4: Poor Individual Likelihood of Voting in 2014 Election, varying SDR	71
Figure 3-5: Probability of Poor Person Converting from Non-Voter in 2010 to Voter in 2014	73
Figure 3-6: Probability of Poor Person Converting from Non-Voter in 2010 to Voter in 2014	73
Figure 3-7: Poor Individual Likelihood of Voting in 2012 Election, varying SDR	75
Figure 3-8: Poor Individual Likelihood of Voting in 2012 Election, varying Absentee/Mail	75
Figure 3-9: Probability of Poor Individual Converting from Non-Voter in 2008 to Voter in 2012	77
Figure 3-10: Probability of Poor Individual Converting from Non-Voter in 2008 to Voter in 2012	77
Figure 4-1: Probability of Individual Being Contacted in 2010 and 2014	93
Figure 4-2: Probability of Individual Being Contacted in 2010 and 2014	93
Figure 4-3: Poor versus Non-Poor Likelihood of Being Contacted in 2010 and 2014	94
Figure 4-4: Probability of Individual Being Contacted in 2012	97

Figure 4-5: Probability of Individual Being Contacted in 2012	97
Figure 4-6: Poor versus Non-Poor Likelihood of Being Contacted in 2012	98
Figure 4-7: Probability of Non-Poor and Poor Individuals Being Contacted in 2012	98
Figure 4-8: Probability of Non-Poor and Poor Individuals Being Contacted in 2012	98
Figure 4-9: Probability of Non-Poor and Poor Individuals Being Contacted in 2012	99
Figure 4-10: Probability of Non-Poor and Poor Individuals Being Contacted in 2012	99
Figure 4-11: Poor Individual Probability of Being Contacted in 2012	101
Figure 4-12: Individual Probability of Voting in 2012 Election	106
Figure 4-13: Individual Probability of Voting in 2012 Election	106
Figure 5-1: Change in Probability of Using Vote Method from 2008 to 2012	121
Figure 5-2: Change in Probability of Casting Ballot via Two Methods from 2008 to 2012	122
Figure 5-3: Change in Likelihood of Casting Ballot In-Person Election Day from 2008 to 2012	123
Figure 5-4: Change in Probability of Using Vote Method from 2010 to 2014	125
Figure 5-5: Change in Probability of Casting Ballot via Two Methods from 2010 to 2014	126
Figure 5-6: Change in Likelihood of Casting Ballot In-Person Election Day from 2010 to 2014	127

Chapter 1

Accessible Voting: State Electoral Systems and Voter Turnout

Increasing voting rates through reform of election laws is a salient policy issue in American politics. In a landmark study comparing the United States to twenty other advanced industrial democracies, Powell (1986) found voter registration laws significantly inhibited turnout. Voter registration also explains why education and socio-economic status (S.E.S.) is so strongly associated with voting in the U.S but not in other democracies. In 2012, President Barack Obama's Presidential Commission on Election Administration was tasked with finding means "to promote the efficient administration of elections in order to ensure that all eligible voters have the opportunity to cast their ballots without undue delay, and to improve the experience of voters facing [. . .] obstacles in casting their ballots, such as members of the military, overseas volunteers, voters with disabilities, and voters with limited English proficiency" (Epstein 2013).

Aware that voter registration limit the participation of disadvantaged demographic groups based on income, race, ethnicity, age, language, and education, proponents contend changing voting and registration laws will boost political participation and decrease inequality in the electorate. The problem is that most published research to date has failed to show state election reform laws—early voting, noexcuse absentee or mail voting, and same day voter registration (SDR)—boost turnout. This study reexamines the effect of voting and registration reforms on turnout and political inequality across the American states.

Voting has been highly unequal in American history. While Anglos, the affluent, and the better educated have historically tended to vote at high rates, their demographic counterparts have encountered substantial institutional barriers to voting that have limited their participation in politics and elections. Inequality in political participation is a manifestation of America's history of economic inequality

(Bartels 2008), two-tiered pluralism (Hero 1992), and legacies of slavery and Jim Crow laws (Springer 2014). Hero (1992, 29) defines two-tiered pluralism as a societal phenomenon in which some groups occupy a higher "social and political arena or tier," while other groups are relegated to a lower tier, with this division being due to "historical, socioeconomic, or other factors." Applying this concept to voting means higher turnout groups have historically occupied a higher tier in politics, the economy, and society, while the lower turnout groups have occupied a second tier. It is well known that non-voters and the poor/working class are less likely to be represented by government policy (Griffin and Newman 2008; Bartels 2008). This two-tiered pattern of American voting has been reinforced by exclusionary voting laws and norms, including voter ID laws. Rogers Smith (1997, 1993) has referred to this as America's tradition of ascriptive hierarchy. This study applies the concepts of two-tiered pluralism to economic inequality and voting laws.

Although Hero's two-tiered pluralism is a racial politics theory, it is extended in this study to encompass economic classes and state voting systems (see Chapter 3). Similar to racial minorities, lower income citizens in many (but not all) states historically and today experience barriers to participation in politics (e.g., poll taxes and photo ID laws) that depress their turnout relative to the middle class and affluent (Keyssar 2009; Kousser 1974). There is considerable overlap in minority and poor populations. Racial minorities tend to be disproportionally poor: According to the 2015 American Community Survey, 25.4% of African Americans and 22.6% of Hispanics had incomes below the federal poverty rate, compared to just 12% of non-Hispanic Whites. These statistics illustrate that Hero's two-tiered pluralism can be plausibly extended to a discussion of disenfranchisement of the poor. Those in poverty also include at high rates single mothers (28%), the disabled (29%), adults without a high school diploma (31%), and children (20%) (U.S. Poverty Statistics 2017).

State experimentation in policy innovation has tried to address this problem. Over the span of twenty years, massive changes to state electoral systems represent a participatory transformation in American politics, or what is here defined as accessible electoral systems. To increase turnout and reduce participatory inequalities, some state governments adopted voting reform laws dating back to the 1970s –

including early voting, no-excuse absentee or mail voting, and SDR – to reduce barriers associated with the act of voting. The number of election reform laws (absentee, early, mail, and SDR voting) has expanded exponentially across the states, potentially leveling the electoral playing field. In 2000, only 26 states had at least one election reform law; by 2014, 40 states had at least one of these laws (Larocca and Klemanski 2011; National Conference of State Legislatures 2016a, 2016b). The sheer number of citizens using these laws has also expanded, according to the U.S. Census's Current Population Survey (CPS). Among eligible voters, only 9% of voters used one of these alternative methods to cast a ballot in the 2000 election, relative to 22% using one of these methods in 2012. Over this time period, in-person Election Day voting dropped from 46% to 37%. In 2016, according to the Cooperative Congressional Election Study (CCES), the gap narrowed further, with 35% members of voting age adults reporting they used an alternative method of casting a ballot, compared to 42% that voted in-person on Election Day. New research on the implications of voting reform laws is needed, given this transformation of how individuals cast ballots.

The goal of this study is to reassess the performance of these election reform laws on turnout by conceptualizing the laws as part of overall state electoral systems, defined by each state's set of election reform laws, election administration, and historical turnout rates. Unlike most of the previous research, the focus is not only on the effect of these laws on overall turnout, but on turnout of low-income citizens. *The new contributions of this study are to evaluate the effects of election reform laws by considering state electoral systems and measuring their effects on participation rates of low and high S.E.S. groups.*

Election reform laws are typically referred to by scholars working in the field by the nebulous term convenience voting laws. Convenience voting laws—specifically early voting (voting before election day), no-excuse absentee or mail voting (receiving and submitting a ballot via mail), and SDR (registering and casting a ballot on a single day before or on Election Day)—are intended to make voting easier (Berinsky 2005). Rooted within an individual-level incentives and a rational choice framework, convenience voting predicts that if the costs of voting are lowered sufficiently, the benefits will out-weigh the costs, and participation will increase (Downs 1957). Yet many studies of convenience voting laws

have found the new state laws have a minimal impact on voter turnout, and, if they do have an effect, tend to exacerbate existing demographic biases in the American electorate (Berinsky 2005; Fitzgerald 2005; Gronke et al. 2008; Karp and Banducci 2001; Neely and Richardson 2001; Stein 1998). However, by narrowly focusing on a cost-benefit analysis calculus, much of the previous research has neglected to take into account differences in state electoral systems in which the act of voting occurs (see Springer 2014 for a related criticism), including implementation and administration of the laws. Placing the emphasis on contextualizing the laws within states and over time, this study reframes convenience voting laws and election administration as components of the accessibility of a state's electoral system. State electoral systems, including election administration, are explicitly measured.

A distinguishing feature of American politics is not only the decentralized electoral system with significant variation in electoral laws across the American states, but wide gaps (up to thirty percentage points) in turnout rates between states. Only by considering overall state electoral systems can we understand if changes to the laws have the intended effect of boosting participation. Not accounting for these factors would be tantamount to studying the effect of a new weight loss regimen on pounds lost, without accounting for the overall weight of the individual. The existing research on convenience voting reforms has tended to miss the forest (state electoral systems) by focusing only on the trees (individual election reform laws). Convenience voting is useful in explaining individual-level decisions to participate in politics using a cost-and-benefit rational choice framework. By ignoring state electoral systems, though, convenience voting may not adequately describe the true effects of these laws.

The accessible voting framework developed in this research combines the individual-level focus of rational choice theory with a neo-institutional perspective by situating an individual's voting decision within state electoral systems. A state's election administration – consisting of vote counting procedures, election review laws, poll workers, and other characteristics – is one component of such electoral systems. Research by Gerken (2009) and Alvarez, Atkekson, and Hall (2013) suggests that election administration shapes individual turnout decisions above and beyond the effect of election reform laws. Additionally, Karp and Brockington (2005) find that individuals are more likely to claim they voted in countries with

higher turnout rates, suggesting that voting decisions are structured by the voting norms embedded in electoral systems (also see Green and Gerber 2015; Gerber, Green, and Larimer 2008). Building on this, accessible voting systems are measured empirically by a state's unique set of convenience voting laws, election administration, and history of turnout.

Accessible voting systems can be evaluated by how well they meet the needs of the most disadvantaged members of society. Disadvantaged citizens are represented in this research by citizens living at or below the federal poverty rate: the most economically disadvantaged members of society. Poor citizens are compared to non-poor citizens to capture the dynamics of two-tiered pluralism that define inequality in American politics. This research evaluates voting laws within state electoral systems, and their impact on low and high income groups. The inquiry is not only whether electoral laws increase overall turnout, but do the laws equalize voting between more and less advantaged voting groups.

This study makes five meaningful contributions that move beyond existing research. 1) It measures state electoral systems to understand how election reform laws and administration of these laws shapes individual turnout decisions. 2) The research is conducted using big data (Catalist and CCES), rarely used in prior research (but see Ashok, Feder, McGrath, and Hersh 2016), along with advanced statistical modeling to more accurately estimate the effects of state voting and registration laws on individual-level voting decisions. 3) Building on Burden et al. (2014), this project considers a combination of state laws to predict individual level modes of voting rather than studying the laws in isolation. The research also uses a more complete set of convenience laws – encompassing early voting, mail or absentee voting, and SDR – used in Burden et al. (2014) and other research. 4) Most of the published literature focuses on overall turnout rates, while this study emphasizes relative turnout for the poor versus the non-poor (see Rigby and Springer 2011), as well as overall turnout rates. It examines whether convenience voting laws reduce participatory inequality between low and high S.E.S. citizens. 5) The research focuses on the effects of accessible electoral systems on campaign mobilization, as well as voting, which is necessary for bringing new voters into the electorate.

Limitations of previous work: No control for election administration

Few convenience voting studies have controlled for state election administration, despite how important implementation is for the effectiveness of laws (Bardach 1977). Beyond and above the effects of election reform laws, variations in election administration across the fifty states may impact voter registration and turnout. According to Justice John Paul Stevens (2008), quoted from the majority opinion in *Crawford v. Marion County*, "public confidence in the integrity of the electoral process has independent significance, because it encourages citizen participation in the democratic process (cf. Lowenstein et al. 2008, 315-329). A state's electoral process is structured by its administration. Broadly, Alvarez, Atkekson, and Hall (2013, 31) describe a state's election administration as an electoral ecosystem, a holistic set of rules, procedures, technologies, and local election officials that shape individual-level registration and turnout in fifty states.

Election administration features have real impacts on how conveniently and confidently citizens can cast ballots within state electoral systems. Across states, for instance, there is considerable variation in the number of polling stations per precinct (density of polling places), the length of polling lines, and the existence of online informational sources citizens can use to find out where to vote in their precinct (Pew 2016; Stein and Vonnahme 2014). Such factors can directly influence voting decisions. Having more polling stations, shorter lines, and more readily available election information makes it easier for citizens to vote, independent of the effect of convenience voting laws. Other examples of administration include cross-state variations in voting machines that affect residual vote rates, or the difference between ballots cast and votes counted in an election (Ansolabehere and Stewart 2005; Stewart 2014); the existence of post-election audit laws that can catch problems and authenticate results (Stewart 2008; Alvarez et al. 2013, 25-26); the lenience of state provisional ballot policies allowing citizens to cast a preliminary ballot if they are not registered or do not show up in a precinct's voter database (Hanmer and Herrnson 2014); and the degree of professionalism and training among poll workers which affects if voter

ballots are processed (Alvarez et al. 2013, 29). Administration of election laws influences an individual's likelihood of voting.

Paul Gronke (2014, 261-268), using multivariate analysis in conjunction with Survey of the Performance of American Elections [SPAE] and CCES survey data on citizen confidence in election processes, finds that voters are more confident that their votes will be counted in states with post-election audits, more professional poll workers, and high quality vote machines. In a direct link to election reform law research, he finds that in-person Election Day voters, in-person early voters, and mail voters are more likely to report confidence that their ballots were counted when they trusted local election officials (Gronke 2014, 264). Atkeson and Saunders (2008, 27), in similar research, find that Colorado and New Mexico absentee and early voters were less confident that their ballots were accurately counted in an election because of how these modes of voting "disconnect voters from election day activities." This lower sense of efficacy – or belief that a ballot has been tallied in an election – likely affects an individual's inclination to use one of these vote methods, rather than in-person Election Day voting. The implication is that it is essential to control for a state's election administration to parse out the independent effects of election reform laws on turnout.

New measures have been developed to quantify state election administration. Heather Gerken (2009) first proposed and Stewart (2008) developed the election performance index [EPI] to assess and rank the performance of 50 state election administrations with the idea of shaming under-performing states into improving how they conduct elections. By making this information publicly available through the Pew Charitable Trust (2016), the intention was to spur improvements in registration and voting procedures used by state and local governments. As shown below, convenience voting laws and election administration are highly correlated, with the implication that it is necessary to control for both factors to understand their unique impacts on individual vote decisions. This study uses Pew's EPI measure to better identify the effects of the laws on individual turnout.

Studying the impact of state voting laws in isolation

The research design used in most convenience voting studies examines the effect of a single electoral law, such as early voting, on voter turnout rates without accounting for a state's other voting reform laws. That is, these studies neglect to control for the joint effect that electoral laws have on individual and aggregate-level turnout. Previous research relying on aggregate state-level data (Brians and Grofman 2001; Fitzgerald 2005; Gronke 2001; Highton 1997; Knack and White 2000; Southwell and Burchett 2000) or individual level data (Neiheisel and Burden 2012 and others) have examined one of these modes of voting in isolation of each other. Building on Burden et al. (2014) and other recent studies (Leighley and Nagler 2013; Springer 2014), this study considers controlling for the combination of voting laws in most states necessary in understanding micro-level voting decisions. After doing this, empirical results suggest state laws may be more beneficial than previously understood.

Ignoring variation across the fifty states

As discussed above, much of the published work on convenience voting using individual level data has done so without taking into consideration how state electoral systems or election administration influences how votes are cast in elections. Some studies move us closer to measuring state electoral systems, without directly doing so, by arguing that scholars need to control for state endogenous factors as well as state election reform laws to avoid biased conclusions. Michael Hanmer (2009), for example, convincingly illustrates that overall turnout boosts from SDR are more modest than previously thought, after controlling for factors (e.g., pro-voting state cultures proxied by state legislative records that he measures with case studies but not quantitatively) that may make certain states more likely than others to adopt SDR and motor voter laws in the first place. However, he finds SDR significantly advantages the turnout of the young and low-educated. Hanmer's (2009) work sets a new standard for studying the effects of voting laws on turnout by controlling for factors that makes some states more likely to adopt

convenience voting laws in the first place. Building on Hanmer, this study seeks to measure state electoral systems using quantitative data, and estimate how this factor shapes individual participation.

Focusing on overall turnout rates rather than turnout for disadvantaged group

Many of the empirical studies on convenience voting in political science have modeled overall voter turnout resulting from adoption of voting and registration laws, rather than voting rates for disadvantaged demographic citizens (but see Brians and Grofman 2001; Gronke 2001; Oliver 1996; Patterson and Caldeira 1985; Springer 2014; Rhine 1995; Southwell and Burchett 2000; Stein and Garcia-Monet 1997). Studying overall participation rates — or statewide averages — may mask important variation across demographic subgroups. The focus of this research is whether disadvantaged voters, such as the poor, are more likely to vote in states with more accessible voting systems. Previous research on poor people's movements (Piven and Cloward 1978) contend that only when the poor participate in mass protests can their voices be heard. In contrast, this study is interested in whether mundane election reform laws and their administration can directly increase the political voice of the poor.

Focus on voting and turnout, not political contact and mobilization

Finally, although much prior research on accessible voting has examined voting and turnout (see Berinsky 2005), there has not been much attention paid to how these laws and state electoral systems impact the likelihood of political campaigns and parties contacting and mobilizing citizens to vote in elections (see Rosenstone and Hansen 2003 for the landmark study on voter mobilization). Burden et al. (2014) suggest different mobilization strategies surround the laws, but do not directly measure mobilization or campaign contact. The authors also do not examine how these laws differentially impact the likelihood that low, medium, and high S.E.S. status individuals will be contacted by a campaign. In states with more accessible electoral systems, the expectation is that political campaigns and parties will work to ensure that more citizens are targeted to vote. Citizens from historically marginalized voting groups (e.g., low S.E.S.) will also be mobilized at higher rates. In this study, individuals are more likely to be contacted in states with certain voting reform laws, and more highly performing election administrations.

Unpacking Accessible Voting—A New Research Direction

An assumption in convenience voting literature is that the effects of these laws are uniform across the states. Recently, a few scholars (Hanmer 2009; Leighley and Nagler 2013; Springer 2014) have shown it is important to control for state contextual factors and over time effects to understand the true impact of election reform laws on political participation. In contrast to prior convenience voting studies, these authors find election reform laws can increase turnout and minimize participatory inequality; Leighley and Nagler (2013), for example, find that absentee and SDR voting have positive over time effects on aggregate turnout, and Springer (2014) demonstrates this same outcome with SDR.

Table A1-1 in the appendix categorizes the literature on convenience voting to locate this study's contributions to the election reform law literature. This study focuses on individual level decisions to vote, ballot casting methods (non-voting versus in-person Election Day voting or convenience voting), and campaign decisions to target potential voters while controlling for the accessibility of a state's voting system. Variation in overall participation rates matters, but also differential rates for high and low S.E.S. groups. The latter has received much less attention from scholars. State election administration also matters. This has also been largely unaddressed in the convenience voting literature.

Descriptive Patterns: Regional Variation in Convenience Voting Laws

Where an election reform law is adopted and implemented is an important determinant of how it shapes individual turnout (Hanmer 2009). Figure 1-1 shows that there is strong overlap between state political environments and the presence of election reform laws. The figure shows in which regions convenience voting laws (early, mail/absentee, and SDR voting) predominate; it follows a pyramid format with the most restrictive election reform laws at the top and the least restrictive at the bottom. The figure captures the notion that the fifty states vary in the restrictiveness of their voting laws—an important

component of the accessibility of a state's electoral system. The geographic areas of predominance are in parentheses.

Early voting gives individuals the convenience of being able to cast a ballot during a period before Election Day. However, this law is the most restrictive form of the voting reform laws because it still requires one to register to vote, and submission of ballots must be supervised and occur at the polls. As of 2014, 36 states had early voting. In the early-2010s, several Southern states (such as Florida and North Carolina) made their early voting provisions even more restrictive by lowering the number of days during which an individual can vote early (Herron and Smith 2014). This is in part because Southern states have adopted fewer convenience voting laws than other regions of the nation, likely reflecting a political history of slavery and Jim Crow laws that did not encourage voting by all members of society (Keyssar 2009)



Figure 1-1: Funnel of Convenience Voting Laws

Note: Current Population Survey (2012); National Conference of States Legislatures (2016a, 2016b)

Mail or no-excuse absentee voting laws, which are present in 30 states, are less restrictive because they allow an individual to vote early, and to do so from the convenience of their own home or

another location besides a polling place without direct government supervision. However, mail and absentee are still more restrictive than SDR because of their registration requirement; one must be registered to vote in to cast a ballot by these methods.

SDR minimizes the registration requirement by allowing individuals to vote and register on the same day. This law is of particular use to citizens who move frequently. For example, low income citizens tend to be highly mobile, which requires re-registering with every move.¹ Thus, the availability of SDR may continue to benefit the poor and more mobile citizens year after year, and not serve as a one-time benefit. To control for mobility, this study controls for a citizen's length of residence, as well as home ownership. As of 2014, 14 states had an operable SDR voting law. At the bottom of the pyramid is the no registration requirement, which is the least restrictive form of voting and present only in North Dakota.

Figure 1 also reflects how people cast ballots in different regions of the United States. Much has changed in how citizens vote since the early studies of convenience voting conducted on turnout in the United States (see Gronke et al. 2008 for summary). The predominance of in-person Election Day voting continued to erode in 2012, according to CPS (2012) sample consisting of 81,564 members of the electorate and weighted using poststratification data to reflect voting age population turnout levels in each state (McDonald 2016; Hur and Achen 2013). Regional patterns are particularly evident in Figure 1, which captures persistent variations in how ballots are cast across the United States. Relative to alternative methods of casting a ballot, only 34% of the electorate cast a ballot on Election Day in 2012, compared to 10% voting via mail or absentee ballot, and 8% voting early. Regional patterns were particularly evident. In-person Election Day voting was the lowest in the Western states (18%), followed by the South (30%) and Midwest (40%), and was the highest in the Northeast (47%). Comparing traditional Election Day voting in the West and East resulted in a nearly 30% difference. How Americans vote differs significantly across the states.

In the 2012 presidential election, 3% of the electorate registered and voted on the same day via SDR. Use of SDR was the highest in the Midwest with 7% of the electorate, and the lowest in the South, with just 1% registering to vote at the polls.

Rates of early voting were the highest in South, with 16% of the electorate voting early, dramatically higher than the 5% in the Midwest, 3% in the West, and just 1% in the Northeast. Even if the poor consist of a smaller portion of the overall electorate than the affluent, they are significantly more likely to engage in early voting in low turnout states such as the South. This is often overlooked in the current literature.

Mail/absentee voting has become the dominant form of voting in the West, with 27% casting a ballot via the mail or absentee in 2012. This compares to 7% in the Midwest, 5% voting via mail in the South, and only 3% in the Northeast. Again, this means that many poor people use mail/absentee voting who reside in Western states.

Finally, non-voting was most common in the West (50%), followed by the South (48%) and Northeast (46%), and lowest in the Midwest (40%). Less restrictive voting laws are most common in the Midwest, while states in the other regions are less likely to have them. Poor people are more likely to choose to vote, rather than not vote, in Midwestern states where individuals have a generally higher likelihood of voting.

Although lower turnout levels prevail in midterm elections, similar cross-region vote method choice patterns recur during midterm election years. These simple descriptive statistics illustrate that state context matters in shaping how votes are cast in contemporary elections.

Components of State Electoral Systems

A state's electoral system consists of convenience voting laws and election administration. In this study, election administration performance is quantified using an index measure that combines the Pew Charitable Trust's (2016) EPI with Michael McDonald's Voter Age Population [VAP] state-level turnout measure. The VAP is used because it takes account of variations in state electoral laws dictating which groups of individuals (such as felons and college students from out-of-state) are eligible or ineligible to vote. Statewide measures of VAP are estimated for every state by averaging across all its VAP values from 1980 to 2014. To give an impression of the variation in state election systems, Table 1-1 depicts the

fifty states, their EPI, lagged VAP, and election reforms laws. In 2014, 36 states had early voting, 30 had absentee/mail voting, and 14 had SDR voting. Average state turnout (both presidential and midterm elections) ranges from a low of 41.67% in Mississippi to a high of 62.67% in Minnesota. Election administration performance is lowest at 52 in Alabama and highest at 87 in North Dakota. The election administration variable used in this study – the VAP-EPI – encompasses values at one extreme of 49.1 (Alabama) to the other extreme of 73.34 (Minnesota). These is extensive variation in electoral systems across the fifty states.

	VAP	EPI (Floation			Mail / No-	
	State	Administration	VAP-	Early	Absentee	SDR
State	Turnout)	Performance)	EPI	Voting	Voting	Voting
Alabama	46.20	52	49.10			
Alaska	56.07	65	60.53	X	х	х
Arizona	40.12	67	53.56	Х	х	
Arkansas	44.76	61	52.88	х		
California	41.63	57	49.31	х	х	
Colorado	51.08	80	65.54	х	х	х
Connecticut	51.11	83	67.05			х
Delaware	47.06	84	65.53			
Florida	43.60	68	55.80	Х	х	
Georgia	38.53	70	54.26	х	х	
Hawaii	41.68	61	51.34	х	х	
Idaho	53.22	59	56.11	х	х	х
Illinois	47.01	75	61.01	Х	х	
Indiana	45.83	71	58.42	х		
Iowa	55.36	70	62.68	Х	х	х
Kansas	49.83	64	56.91	х	х	
Kentucky	43.11	61	52.06			
Louisiana	44.51	66	55.25	х		
Maine	60.49	73	66.74	Х	х	х
Maryland	45.90	79	62.45	Х	х	х
Massachusetts	51.52	70	60.76			
Michigan	51.56	77	64.28			
Minnesota	62.67	84	73.34	X	X	Х
Mississippi	41.67	63	52.33			
Missouri	50.95	82	66.48			

Table 1-1: Election Laws and Administration in the American States

Montana	58.70	76	67.35	X	х	Х
Nebraska	51.67	75	63.33	х	x	
Nevada	38.99	78	58.50	Х	х	
New						
Hampshire	50.80	66	58.40			X
New Jersey	43.88	65	54.44	Х	Х	
New Mexico	44.84	66	55.42	Х	x	
New York	41.29	65	53.14			
North Carolina	42.31	71	56.66	х	х	
North Dakota	56.07	87	71.53	х	х	х
Ohio	50.97	74	62.49	Х	Х	
Oklahoma	45.19	61	53.10	х	х	
Oregon	55.92	76	65.96	Х	Х	
Pennsylvania	46.73	73	59.86			
Rhode Island	49.21	67	58.10			х
South Carolina	39.88	78	58.94			
South Dakota	59.34	72	65.67	х	х	
Tennessee	41.83	69	55.41	х		
Texas	37.19	64	50.60	Х		
Utah	47.84	72	59.92	х	х	
Vermont	55.82	76	65.91	х	х	
Virginia	42.89	86	64.45			
Washington	50.34	73	61.67	х	Х	
West Virginia	40.98	71	55.99	X		
Wisconsin	55.87	81	68.43	X	X	Х
Wyoming	54.15	63	58.58	х	X	х

 Table 1-1: Continued

Data: State election reform laws data from National Conference of State Legislatures (2016a, 2016b) and Larocca and Klemanski (2011).

Note: Only states that implemented laws as of 2014 are included in this table. Alaska and Rhode Island have SDR in presidential but not midterm elections.

Figure 1-2 displays maps of the states having these reform laws in 2014. Early voting is the most common accessible voting law, and is located in every region of the country. There are a few states in the Northeast and the South without this law. No-excuse absentee or mail voting laws are present in all Western and most Midwestern states; only a few states in the Northeast and South have these laws. Lastly, SDR states tend to be in the Midwest or West, although a few Northeastern states have this law.

No Southern states had SDR in 2014. These maps demonstrate that there is considerable variation across the states in terms of the presence of these laws.



Note: Alaska and Rhode Island are SDR states during presidential election years.

To identify general patterns, Table 1-2 reports correlation coefficients to identify how these factors covary with each other. First, states with higher levels of EPI tend to have higher levels of voter turnout. This means that states with more accessible election administrations tend to have higher average turnout levels, and vice versa. Second, higher voter turnout is significantly correlated with a state having mail/no-excuse absentee voting, SDR, and a higher total number of election reform laws. Early voting's exception to this pattern is likely due to the greater prevalence of this law in the South, where there are generally lower levels of turnout, thus dampening the association of the law with turnout. Third, several combinations of laws are positively correlated with each other: early voting and mail/no-excuse absentee

voting; mail/no-excuse absentee and SDR voting; and all three laws' greater likelihood of being present when the total number of such laws is higher in a state. These findings indicate that statistical models need to control for election administration to understand the independent effects of the laws on turnout decisions.

	EPI	Lagged VAP	Early Voting	Mail / No- Excuse Absentee Voting	SDR Voting	Count of Voting Laws
EPI	1					
Lagged VAP	0.35**	1				
Early Voting	-0.08	0.14	1			
Mail / No- Excuse Absentee Voting	0.05	0.35**	0.76**	1		
SDR Voting	0.22	0.61**	0.09	0.23*	1	
Count of Voting Laws	0.085	0.48***	0.82***	0.89***	0.572***	1

Table 1-2: Pearson Correlations between State VAP, EPI, and Election Reform Laws

p*<0.1, *p*<0.05, ****p*<0.01

Figure 1-3 shows how related a state's election administration is with its set of election reform laws. On the x-axis is the number of convenience voting laws per state, ranging from zero to three; on the y-axis is the election administration variable (VAP-EPI), ranging from 49 to 73. Higher values on both axes are theoretically consistent with a more accessible voting system. The general pattern is that state's with more of these reform laws also have more accessible election administration. However, there are more than a few states that deviate from this trend. Several states with no election reform laws have high VAP-EPI; one state with a single law has high VAP-EPI; several with two election reform laws have low VAP-EPI; and a few states with three reform laws have low VAP-EPI. Given the correlation between a state's VAP-EPI and set of reform laws, these deviations demonstrate that the influence of these laws cannot be considered independently. Rather, to truly evaluate whether election reform laws increase turnout, reduce turnout inequality between the poor and non-poor, and incentivize campaigns to mobilize individuals from both groups, this research evaluates their performance while controlling for a state's election administration.



Figure 1-3: VAP-EPI Level and Number of Convenience Voting Laws by State, 2014

Accessible Voting Model

The components of a state's electoral system can be used to build an accessible voting framework. The framework assumes that state convenience voting laws, state election administration, histories of turnout shape voter turnout rates and mobilization patterns at the individual level, as well as differential turnout rates between the poor and non-poor. Figure 1-4 outlines a model of how the pieces of the study fit together.





States with higher VAP-EPI values and more convenience laws are expected to have higher rates of voter mobilization and turnout, and lower levels of turnout inequality. Returning to the theoretical model, the dashed lines connecting the state culture box to the reform law and electoral systems boxes are meant to signify that there is substantial variation across the states in terms of their electoral systems. States with more accessible voting systems are expected to be more positively related to VAP, EPI, and election reform laws.

From this new design, several research hypotheses are generated. State voting and registration reform laws, and highly performing election administration, are predicted to have 1) citizens who are more likely to vote; 2) poor people who are more likely to vote; 3) political parties that are more likely to recruit broader segments of the populace to vote, including low S.E.S. citizens; and 4) to have more

citizens who utilize alternative modes of voting (early, absentee/mail, or SDR voting) rather than vote inperson on Election Day or choose not to vote. Each of these hypotheses is evaluated in a separate chapter.

Chapter Outline

In the second chapter, the research question is whether a state's election administration and set of election reform laws impacts an individual's decision to vote. Specifically, do with certain convenience voting laws, and highly performing election administrations, have citizens who are more likely to vote? In this chapter, the policy feedback components of the accessible voting theoretical framework are also more fully developed. Two of the main datasets used in the dissertation (Catalist and the CCES) are described too. Empirically, this chapter examines how individual's decision to vote (or not vote) is impacted by early, mail or absentee, and SDR voting as well as a state's election administration in the presidential and midterm elections from 2008 to 2014. Data for this chapter comes from the 2016 Catalist and 2008-2014 CCES. The key dependent variable is an individual's decision to vote (or not). Since the dependent variable is dichotomous, the chapter utilizes a logistic regression model. This model permits the chapter to estimate an individual's probability of voting due to a state's convenience voting laws and election administration. This is relative to an individual's decision not to vote, which is the baseline category. Lagged panel and matching models are employed to test the robustness of these findings. Predicted probabilities are derived from this chapter's logistic regression models to determine the substantive effects of each of these state-level factors.

In Chapter 3, the question examined is whether convenience voting laws increase turnout among the poor, a historically marginalized voting group. Do highly performing state election administrations lead to this outcome too? Data for this chapter comes from the 2016 Catalist and the 2008-2014 CCES. The dataset consists of large presidential and midterm election year subsamples of poor citizens; this facilitates precise estimation of the impacts of election reformlaws and administration on turnout among the poor. The key dependent variable is turnout at the individual-level. Lagged panel and matching

models are used to evaluate the robustness of the effects. Predicted probabilities are derived to estimate the substantive effects of accessible electoral system variables on turnout among the poor.

In Chapter 4, key research questions include do political parties and candidate campaigns take advantage of convenience voting laws in the states to mobilize new voters, and do these laws make it more likely that political parties and campaigns will recruit low S.E.S. individuals to vote? This chapter first considers the impact of the accessible electoral system variables (election laws and administration) on an individual's likelihood of being contacted by a campaign. Next, subsamples of contacted and non-contacted respondents are modeled to estimate the effects of these variables on turnout after controlling for mobilization. This research design captures the mobilization and turnout effects associated a state's electoral system. Data for this chapter comes from the 2008, 2012, and 2014 CCES. There are two dependent variables: campaign contact, and turnout. Logistic regression and predicted probabilities are derived from these results to estimate how an individual's likelihood of being contacted and voting changes because of a state's convenience voting laws and election administration.

Chapter 5 examines whether a state's set of election reform laws impacts a low versus medium or high S.E.S. citizen's choice of voting method. Moreover, do convenience voting laws have a larger influence on increasing turnout and reducing turnout inequality in states with a highly performing election administration, or more of these laws offering more ways to vote to citizens? This chapter examines how poor versus non-poor citizen choices to vote via early, mail/absentee, SDR, or at the polls (rather than not vote) changed from the 2010 to 2014 midterm election, and from the 2008 to 2012 presidential election. Lagged panel data is employed from Catalist. The key dependent variable is an individual's choice of voting method. Because the outcome variable is categorical, this chapter employs a multinomial logistic regression model. This model allows the chapter to estimate an individual's likelihood of voting via in-person Election Day, early, absentee/mail, or SDR voting relative to non-voting. Predicted probabilities are derived from these multinomial logistic models to produce estimates of how poor and non-poor citizens choose to vote, varying state election administration and number of voting laws to control for the accessibility of a state's electoral system
In a concluding chapter, this project integrates the accessible voting framework with the findings of these various models to illustrate that convenience laws do create a more inclusive and equal voting system. States with more convenience voting laws and a highly performing election administration are likely to have higher voting rates in elections, more equal turnout between lower and higher S.E.S. status citizens, and have state actors use these laws as mobilization mechanisms to bring new voters into the electorate. Accessible electoral voting systems appear to make a difference in positively shaping turnout in the American states.

Chapter 2

Accessible Voting and Turnout across American State Electoral Contexts

Low voter turnout and inequality in voting rates across demographic groups are two significant problems in American democracy. Recent reforms of state voting and registration laws aim to address this problem. Low voter turnout remains a significant problem in the U.S. Only one in three (33.4%) individuals eligible to vote cast a ballot in the 2014 midterm election, while 58.6% and 58.1% did so in the 2012 and 2016 presidential elections—elections with the highest recorded turnout in the modern era besides 2008 (McDonald 2016a). This pales in comparison to voting rates in the most recent national elections in other democracies: 87.2% in Belgium, 85.8% in Sweden, 71.2% in France, and 61.1% in the United Kingdom (Desilver 2016). Voter turnout in the 2012 presidential election was over 10 percentage points higher for individuals earning over \$50,000 compared to those earning \$30-39,000 (Current Population Survey [CPS] 2016). Low turnout and unequal participation rates lead can have negative outcomes (Lijphart 1997; Brown, Jackson, and Wright 1999; Jackson, Brown, and Wright 1998), including the election of candidates that do not reflect the interests of all voter (Bartels 2008; Key 1949), policy outcomes skewed toward wealthy voters (Hill and Leighley 1992; Lijphart 1997), and lower legitimacy of the government (Keyssar 2009).

In response, states in the 1970s begin to adopt election laws to make their voting systems more accessible to their citizens, and thereby increase turnout (Gronke et al. 2008; Larocca and Klemanski 2011). These laws include early voting, no-excuse absentee or mail voting, and Same Day Registration [SDR], as discussed in the introduction. They are commonly referred to as convenience voting laws.

Convenience voting is changing the landscape of how people participate in politics in the 21st century. In the wake of the 2000 election and the Help America Vote Act, federal and state governments have been moving toward making election administration and procedures more accessible for citizens (Alvarez, Atkekson, and Hall 2013; Gerken 2009; Stewart 2008; Stewart 2006). Use of early voting (in-person and by mail) is skyrocketing, with more people casting an early ballot (46.3 million in total) in the

2016 than in 2012 election. In Florida, 75% of votes were cast before Election Day, compared to 50% in the 2012 election. Additionally, early voting among Latinos increased by 100% from 2012 to 2016 (Florida Secretary of State 2016a, 2016b; McDonald 2016b). But the 2012 and 2016 elections also experienced a backlash, where the time window to vote early was reduced and restricted in many states, including Florida and North Carolina. In these two states, this led to a significant decrease in minority turnout rates (Brennan Center for Justice 2016; Herron and Smith 2014). The legal landscape for voting and registration laws across the states continues to change.

With the rising number of Americans casting a ballot using these new laws, what are the effects on voter turnout? Turnout in the 2016 election was 58% of eligible voters with over 134 million ballots cast (from a total of 231.1 million eligible voters), down just modestly from the modern record of 62.2% turnout in 2008 (Obama vs. McCain), and 58.6% in 2012 (Obama vs. Romney) (United States Election Project 2016). The last three presidential elections have witnessed the highest voter turnout rate in modern times. On the verge of the 2016 election, Elliot Fullmer (2016) in the *USA Today* suggested that if more states adopted less restrictive voting laws, turnout would increase. On one level highly competitive national elections combined with state laws to reform voting and registration appear to be increasing participation rates.

But with the exception of research on same-day registration (SDR), most previous research has concluded that early, absentee, and mail voting have "perverse consequences" (Berkinsky 2005). This means that the laws have been found to have a minimal impact on turnout rates (Berinsky 2005; Gronke et al. 2008; Hanmer 2009; Karp and Banducci 2001, 2000; Springer 2014, 21-23, and others). Not only does the research find that overall turnout has not increased, but state election reform laws can exacerbate inequality in voting rates between high and low income groups. Do convenience voting laws contribute to the relative increase in turnout in the United States, or do they have minimal effects? Advances in data science and large sample surveys/population data have changed the type of research possible in political science. This study re-evaluates the effect of state election laws on voter turnout rates over time.

Do convenience voting laws have a positive impact on turnout? This study contributes to the debate between those who argue that election reform laws have minimal or less than desired effects, and those who argue that the laws positively shape participation (Leighley and Nagler 2014). Although several recent studies (Burden et al. 2014; Hanmer 2009; Springer 2014) have found SDR have positive effect on overall turnout rates, this study demonstrates that SDR is not the only state voting law to have beneficial effects. Previous research has not measured election administration, focusing exclusively on the effect of the state laws. Large sample population and survey data is used to examine the effect of the laws on turnout among the general populace for the period 2008-2014; previous research relied on much smaller sample sizes. Using panel data of state voter rolls, the research shows that some laws can actually play a pivotal role in converting non-voters into voters.

Building on recent studies on convenience laws in the American states, an accessible voting framework is developed. Accessible voting focuses on the combination of state voting laws and election administration measured by the Election Performance Index (EPI) to evaluate the impact of the laws on individual level turnout, as well as turnout of demographic groups defined by income. The findings and implications presented here are applicable to state lawmakers and policy makers, the media, and students of voting and elections.

Identifying the Effects of Convenience Voting Laws

Election reform laws are designed, in part, to lower the institutional costs associated with voting. The expected result is an increased likelihood an individual will decide to vote. The costs associated with voting are real. According to a subsample of 111,015 non-voters from the 1996-2014 U.S. Census's Voter and Registration Supplement (CPS 2016), 33% did not vote because they were too busy, 15% for personal or family medical reasons, and almost 12% because they were out of town. An additional 4.22% of these individuals cited registration issues. Given that these laws can reduce the time costs associated with voting, or essentially eliminate the registration requirement, a natural expectation is that they would increase turnout. Paradoxically, a number of researchers have found that all of these laws, except for

SDR, do not increase turnout, and do not bring new voters into the electorate (Berinsky 2005; Burden et al. 2014; Gronke et al. 2008; Hanmer 2009; Karp and Banducci 2001; Springer 2014; and others). These studies conclude the laws have lower utility than originally expected.

Most prior studies of convenience voting have shortcomings that hamper the evaluation of the impact of state laws on participation rates. First, many studies examine only a handful states or counties within a single state (Barreto et al. 2006; Gronke and Miller 2012; Hanmer 2009; Karp and Banducci 2001; Kousser and Mullin 2007; Neely and Richardson 2001; Southwell and Burchett 2000). Second, several studies rely on a single-year to analyze the impact of these laws (Highton and Wolfinger 1998; Huang and Shields 2000; Timpone 2002; Wolfinger and Rosenstone 1980) rather than measuring change in turnout over time; see Springer (2014) for a time series spanning nearly a century. Finally, several of the more cited articles on convenience voting laws rely only on descriptive or correlational statistics to formulate conclusions about their effects (Berinksy 2005; Gronke et. al 2008; Stein 1998).

Many of the more recent and statistically rigorous analyses (Burden et al. 2014; Hanmer 2009; Leighley and Nagler 2014; Springer 2014) have partly assuaged these concerns by relying upon large over time datasets (U.S. Census's Current Population Survey) with representative state samples. Their research designs include time-series cross-sectional (Leighley and Nagler 2014; Springer 2014), difference-in-differences (Hanmer 2009), randomized treatment-control group (Hanmer 2009; Burden et al 2014), statistical matching (Burden et al 2014), and models that control for multiple laws simultaneously (Burden et al 2014 and Spring 2014). These studies have made important inroads into our understanding of state election reform laws, especially the positive effect of SDR.

However, even these more recent contributions to have limitations. First, none of these studies simultaneously control for the accessibility of a state's electoral system – namely, the combination of convenience voting laws, the quality of state election administration (Burden and Stewart 2014; Gerken 2009; Stewart 2008), and state historical turnout. Election administration varies considerable across the states, with implications on the ability of individuals to successfully cast ballots. Examples of administrative differences include cross-state variations in voting machine quality that affect residual vote

rates, or the difference between ballots cast and votes counted in an election (Ansolabehere and Stewart 2005; Stewart 2014); the existence of post-election audit laws to catch problems and authenticate results (Stewart 2008; Alvarez et al. 2013, 25-26); the lenience of state provisional ballot policies allowing citizens to cast a preliminary ballot if they are not registered or do not show up in a precinct's voter database (Hanmer and Herrnson 2014); and the degree of professionalism and training among poll workers (Alvarez et al. 2013, 29). As discussed in Chapter 1, Gronke (2014; also see Gerken 2009) emphasizes how variation in election administrative quality (voting machine quality, poll worker training, and vote count accuracy) impacts voter efficacy in several modes of accessible voting, and has implications on citizen likelihood of using these methods of voting. For purposes of this research, the implication is the necessity of controlling for state variations in election administration quality to isolate the effects of convenience voting laws on turnout.

In this study, these features are proxied by a state's election performance index [EPI] and historical voting age population [VAP] turnout, the VAP-EPI measure, to capture the level of accessibility of its election administration and tradition of facilitating voting. Figure 2-1 displays the across state variation in state electoral systems. State SDR laws and historical voter turnout rates are positively and significantly correlated (r=0.48, p<0.01), whereas no-excuse absentee and mail voting (r=0.22, p>0.10) as well as early voting (r=0.17, p>0.1) are not significantly correlated related with a state's electoral system Consistent with prior literature, this suggests that SDR voting laws have been adopted to either increase turnout or to maintain a state's legacy of higher turnout (Hanmer 2009; Southwell and Burchett 2000). Comparatively, absentee, mail, and early voting laws have been implemented by states not to increase turnout but to make voting more convenient for high-propensity voting groups (Berinsky 2005). This evidence might be correlational, but has an important implication the study of convenience voting laws. That is, in order to determine if the laws have a causal effect independent of a state's electoral context, researchers need to control for state election administration and historical turnout in order to isolate the effect of voting laws on turnout. The accessible voting framework focuses on how state electoral systems shape turnout.



Figure 2-1: Variation in State Election Performance Index and Historical Turnout Rates (VAP-EPI)

Second, U.S. Census data used in most prior studies do not include measures of political interest, partisanship, campaign contact, and a number do not control for election competitiveness. Yet decades of research confirms that individuals who are interested in politics, partisan, and have been contacted are more likely to vote (Parry et al. 2008). These confounding factors are related to turnout decisions, and thus need included in statistical models estimating the effects of election reform laws.

An overreliance on U.S. Census data (Current Population Surveys) may lead to type II errors, or the failure to find a positive effect of the laws on turnout when it does exist under some conditions. While the sample sizes in the CPS are relatively large, none of the studies make use of population data that actually includes public records (voter rolls) of citizen registration and turnout (but see Heron and Smith 2014). Survey-based datasets can be vulnerable to sample bias. The CPS has a significantly smaller sample than state voter rolls.² The sampling frame may also lead to bias in terms of sampling the eligible voting population, since turnout propensities likely vary across state counties and demographic groups, which are not sampled equally in the CPS. Few of the previous studies are based on validated voting data unlike reliance on the voter rolls from the fifty states. Since not all self-reported votes are actual votes,

Note: Election performance index values and historical turnout rates and in 2014.

this leads to potential bias in their outcomes. Despite the advanced research designs used in many recent studies, advances in data quality and data science may be leveraged to retest the true effects of the laws on participation.

This study attempt to address these shortcomings, and makes several important contributions to the literature on election reform laws. First, it utilizes a policy feedback theoretical approach – accessible voting – that emphasizes how the accessibility of state electoral systems shape the impact of these laws on individual turnout. To accomplish this, an election administration variable alongside controls for multiple convenience voting laws are employed to better isolate the effects of each law on turnout. Second, panel data (voter rolls) and statistical matching models are used to construct causal inference designs to more precisely identify turnout effects. Third, the effects of the laws are evaluated using Catalist population turnout panel data (1% sample) of over 2 million Americans based on the voter rolls from all fifty states, merged with consumer data, census data, and other sources (Ansolabehere and Hersh 2014). Catalist is proprietary data and maintains a record of each registered voter in the country, and appends to the record all relevant information it can find about the voter (Hersh 2015). The very large sample helps mitigates the response and sample bias associated with survey datasets, and is even used to create the vote validated turnout measure commonly used Cooperative Congressional Election Studies (CCES). Fourth and finally, the statistical models include controls for political interest, partisanship, mobilization, as well as statelevel competitiveness. This parses out the influence of these confounding factors related to voting.

Models of Convenience Voting

Berinsky (2005), Burden et al (2014) and Neely and Richardson (2001) emphasize that convenience voting laws by themselves are not the main drivers of turnout. Rather, they note that political interest, competitive elections and campaigns environments, and mobilization are key factors that stimulate turnout and motivate individuals to make use of these laws (Bowler and Donovan 2008; Donovan 2008). There is empirical support for this argument. An estimated 26.74% of non-voters from 1996-2014 cited a lack of political interest and disconnect from campaigns as main reasons for not casting

ballots (U.S. Census CPS 2016). To more accurately estimate the effects of these laws, researchers must control for not only the state laws themselves, but also political interest, electoral competition, and mobilization factors that condition the effects of the laws on participation. Reliance on Census data means these factors are often omitted in previous research.

An additional limitation of some previous research on U.S. election reform is the lack of a comparative research design, where cases are selected for inclusion in the sample without significant variation in type of electoral system in use. By necessity, much of the existing research is also non-experimental, drawing on observational data and placing significant weight on the attitudes or behaviors of citizens residing in jurisdictions adopting convenience voting laws or with varying quality election administrations. This selection bias can lead to distorted results (Angrist and Pischke 2008). States that adopt laws making it easier to register and to vote may also have higher turnout rates in the first place (Hanmer 2009). This makes it difficult to isolate the effect of the laws on turnout.

Recent Research

To build on more recent literature that addresses these shortcomings, and to locate the contributions of this study, four highly cited recent studies deserve detailed explication. Melanie Springer (2014) builds an impressive time-series data set of aggregate state turnout rates over nearly a century (1920-2000) to study the impact of early voting, absentee voting, and SDR voting laws on voting over time, comparing the effect of the more recent laws to Jim Crow voting laws decades earlier. Springer examines the simultaneous effects of various election reform laws in her models to identify each law's unique impact. She finds that these laws have a non-constant impact across the states, with convenience voting laws typically having less of an effect in Southern states compared to non-southern states. Only SDR laws are found to have a significant impact in increasing turnout among the contemporary state election laws, and this beneficial effects pales in comparison to the negative effect of Jim Crow laws (literacy tests, polls taxes) used historically. Using a century long cross-sectional time series model, Springer (2014) is able to render more precise estimates on the effects of modern voting reforms.

While Springer's (2014) contributions to the literature are admirable, this study fills a few of the lacunae in her research. The data used in her study is more than fifteen years old, with the most recent data from 2000. Seismic changes in the number of states with absentee, early, and SDR laws have occurred since this time and the study's findings needs to be updated. In addition, Springer (2014) solely relies on aggregate turnout data from the fifty states that does not allow inferences about how citizen motivations are altered to vote because of these laws; it also does not permit one to test alternate hypotheses – partisanship or political interest – pertaining to turnout. These confounding factors, rather than election reform laws, might explain historical and contemporaneous turnout trends. This study updates Springer's results with population dataset drawn from all fifty states, and allows for the testing of these alternate individual-level voter turnout hypotheses.

Leighley and Nagler (2014, Chapter 4) also employ empirical models that simultaneously control for the presence of early, absentee, and SDR voting across the states. In their research they examine turnout outcomes using 1972-2008 CPS data with cross-sectional time-series and difference-indifferences methods. They find that SDR and no-excuse absentee voting are associated with higher turnout, but not early voting. One limitation of their study is the omission of confounding variable with CPS data as discussed above such as partisanship or interest. Another is the lack of a panel data that would allow the authors to take repeated measurements of an individual's probability of voting over time. Such overtime designs can be used to create stronger causal models than from cross-sectional datasets. Nevertheless, Leighley and Nagler, known for their very important contributions to research on voting and turnout, find more positive outcomes associated with state election reform laws than most previous research.

Another landmark contribution to our understanding of convenience voting laws is Michael Hanmer's (2009), who leverages causal inference designs to understand individual level voting. He uses a difference-in-differences approach drawing on CPS data to compare the probability of voting in early adopting SDR states (Maine, Minnesota, and Wisconsin) to later adopting ones (Idaho, New Hampshire, and Wyoming), and to non-SDR states comparing change over time. This design controls for state factors

that explain adoption of SDR in the first place. He finds that SDR has a much more minimal effect in increasingly turnout than previously found, but that SDR may especially boost turnout among low-educated and young voters.

Hanmer also explores (although more descriptively) whether government elites and party leaders create incentives for citizens to vote because of the law. An example he cites is the motivation among government elites in the first set of states to adopt SDR to enhance turnout through eased voting requirements, a motivating factor not present among the elites in the second set of states.³ These different elite motivations affected both state adoptions of the law, as well as a citizen behavior in response to the law. Hanmer (2009) finds SDR to have the highest impact in early adoption states.

While Hanmer's work significantly contributed to our understanding of state voting laws, it too has some shortcomings. The design depends on the quality of matches between SDR treatment and control states. For instance, his first comparison consists of Minnesota and Wisconsin as treatment states, and Iowa and South Dakota as control states. While these states are certainly contiguous with each other, they are substantially different in terms of population (5-6 million people in treatment states, versus under 1 million-3 million in control states). The author considers population to be one of his matching criteria, and if this difference in state populations affects the quality of his matches, his inferences may need further scrutiny. Additionally, Hanmer only studies a handful of states rather than turnout nationally, and, like much of the previous research, the data is now more than a decade old. Focusing on SDR, he does not control for the presence of early voting, mail voting, or absentee, like the Springer study. Exclusive reliance on Census CPS data means that important control variables such as partisanship and political interest are omitted; would inclusion of these factors change the findings?

This study uses similar casual inference designs but uniquely use panel data to measure change in voter turnout at the individual level over time. This allows for strong causal inferences than those reached by Hanmer (2009).

Finally, Barry Burden and colleagues (2017, 2014) make significant improvements in the study of convenience voting laws by controlling for combinations of early voting and SDR to account for the

simultaneous existence of these laws at the state-level. Drawing on large sample survey data (CPS), the researchers test the robustness of their findings with statistical matching and difference-in-differences to model individual and county-level turnout. Their research finds that more citizens vote in states with SDR (the combination of early voting and election day registration), but early voting alone reduces turnout. By controlling for the multiple laws on turnout, this study had a profound importance in the literature.

However, a number of improvements can be made on Burden et al.'s (2017, 2014) research. They rely exclusively on CPS data, and thus cannot control for partisanship, interest or voter mobilization. Moreover, they only examine presidential elections. Election reform laws have varying effects across different types of elections (see Tolbert et al. 2008), and excluding midterm elections may mask potential effects of these laws. State election reform laws may have their largest effect in lower information midterm elections when presidential campaigns are absent. This study utilizes a dataset not subject to these constraints, and also examines the effects of the laws in both presidential and midterm elections.

Accessible Voting and Voter Turnout

Considerable variation among the states in terms of the presence of convenience voting laws, as well as their election administrations, complicates the estimation of their effects. The adoption and administration of election laws is a constitutionally protected prerogative of the states (Article 1, Section 4 of Constitution), leading to fifty different sets of accessible state electoral systems that differentially shape turnout patterns among citizenries (Keyssar 2009; McDonald 2010). States not only have different combinations of voting reform laws (Burden et al. 2014), but also different sets of registration laws, polling location provisions, and historical legacies of promoting or hindering turnout that over time impact voting. These factors play an interactive role in shaping voting behavior.

Electoral institutions, such as convenience voting law, are created and altered by political actors to impact political behavior, and over time these laws give rise to new participatory cultures that prompts further additions or alternations to these laws. Citizen political behavior is impacted as a result of

historically-embedded configurations of political institutions; political participation in turn facilitates the design of future institutions. The study of electoral laws on political behavior draws from a neoinstitutional perspective, as defined by Orren and Skowronek (2004, 78; see also Steinmo, Thelen , and Longstreth 1992) that recognizes that institutions shape behavior, but that citizen behavior can reform political institutions. This theoretical school-of-thought combines history with the notion that "institutions participate actively in politics: they shape interests and motives, configure social and economic relationships, [and] promote as well as inhibit political change" (see Putnam 1993; Tocqueville 1835).

This argument about state voting laws is consistent with policy feedback. According to Mettler and SoRelle 2014, 168), "political actors are keenly aware of policy benefits' capacity to alter participatory dynamics [.... They] have the ability to exacerbate or mitigate existing inequalities by providing resources to some groups rather than others." By creating laws favorable to certain groups rather than others, state governments and parties signal to individuals within these groups whether or not their behaviors are endorsed by the state. Kreitzer et al. (2014) illustrates this policy feedback process on public opinion, highlighting the ability of governments to signal preferences to citizens. This signaling mechanism links the macro-level characteristics of state governments to individual-level citizen behavior. Over the past 15 years, a growing body of policy feedback literature has found that policy affects opinion and behavior in several areas, including the environment, health care, welfare reform, smoking bans, and same sex marriage (Gusmano, Schlesinger, and Thomas 2002; Hetling and McDermott; Johnson, Brace, and Arceneaux 2005; Kreitzer, Hamiltion, and Tolbert 2014; Pacheco 2013, 2012). Few studies have demonstrated a link between state election administrations, convenience voting laws, and citizen behavior, such as turnout.

An argument developed here is that a signaling link exists between election laws and citizen voting behavior. State electoral laws establish rules and procedures that impact who is able to vote, and which groups are targeted by political campaigns and parties for mobilization (Burden et al 2014). They affect the amount of resources (e.g., canvassing, advertising, direct mail) that campaigns devote to voter recruitment, and the symbolic importance that a state government attaches to the participation of

particular groups (Mettler and SoRelle 2014; Waldman 2016). Several scholars have documented a long history of state legislatures and political elites adopting or annulling voting laws in order to affect turnout in ways advantageous to political parties rather than state citizenries (Keyssar 2009; Keys 1949; Schattschneider 1942). Using voting laws, state governments signal to citizens whose participation is valued, and this affects who takes part in elections.

Similarly, Michael Hanmer (2009, Chapter 7) finds that SDR is used by the Democratic Party to mobilize college students who are unregistered to vote. He also finds that states with strong historical voting norms, such as Maine, Minnesota, and Wisconsin, also have party elites more likely to endorse adoption of laws that improve turnout. While some states advocate for laws to increase turnout, others actively legislate to reduce it. Herron and Smith (2014) reveal that Florida restrictions on early voting (reducing the number of days allowed for early voting, especially Sundays used in Souls to the Polls minority voting drives) depressed turnout levels of racial minorities and other Democratically-aligned population groups, which was to the distinct advantage of the Republican Party. Restrictive voting laws signal to these groups that they are symbolically less valued members of the electorate, depressing their participation, while expansive voting laws signal the opposite (Soss and Schram 2007).

Research Hypotheses

This study evaluates two causal linkages of the accessible voting model presented in Chapter 1; these are the links between (1) a state's set of voting reform laws, and individual-level turnout, and (2) a state's election administration, and the same outcome. Accordingly, the evaluated hypotheses here include:

H1: Convenience voting laws (early, no-excuse absentee or mail voting, and SDR voting) will have beneficial effects on turnout after controlling for other features of state electoral systems (the other voting reform laws, and a state's election administration).

H2: Convenience voting laws and state election administration will have their largest impact on turnout in midterm elections.

Regarding the first hypothesis, active campaigns and media coverage make it more likely that individuals will vote during presidential election, whether or not a state has any one of these election laws. Conversely, in low salience midterm elections, these laws are more critical in determining whether individuals feeling low motivation or political interest will cast a ballot. Several researchers (Tolbert and Smith 2005; Tolbert, Grummel, and Smith 2001; Tolbert, McNeal, and Smith 2003) have noted similar differential turnout impacts with ballot initiatives, with initiatives having a larger effect on turnout in lower information midterm elections. Election reform laws are expected to have a similar effect.

Regarding the second hypothesis, individuals are more likely to use an election reform law in states with (historically and contemporaneously) government elites who are more concerned with citizen turnout, and maintaining an election administration that reduces the difficulties associated with the voting process (Alvarez, Atkeson, and Hall 2013; Gerken 2009). Evaluating the laws in this context, this study re-evaluates their effects on turnout.

Research Design

This study's research design, summarized in Table 2-1, employs several techniques to reduce error in evaluating the effects of state election reform laws on voter turnout. First, the research design controls for the set of election reform laws present in each state: Early voting, no-excuse absentee or mail voting, and SDR voting. Three separate binary variables are used to indicate the presence or non-presence of the laws. The states are so heterogeneous in their sets of convenience voting laws that it is reasonable to assume that the impact of the laws is exogenous, "at least in terms of unobserved variables that are correlated with turnout" (Burden et al. 2014, 100).

Second, as certain states have stronger traditions of promoting turnout (Hanmer 2009; Elazar 1994, 1972), one must additionally control for the accessibility of state's electoral system in order to isolate the effect of these laws on participation. The risk of endogeneity is that state-level factors that lead to a state's adoption of an election reform law also motivate individuals to vote, independently of the

effect of the laws (Hanmer 2009). To proxy for the level of accessibility of a state's voting system, a state's past average voting age population [VAP] turnout is combined with its election performance index [EPI] for a given election year. This study utilizes the VAP as a component of this proxy measure because state eligibility and incarcerations laws vary across the states, and these variations are often related to a state's historical legacy of promoting or hindering turnout equality (Hanmer 2009; Keyssar 2009; Manza and Uggen 2008). The EPI captures the convenience, integrity, and accuracy of each state's voting system, using indicators such as how accessible polling places tend to be, how accurately votes are counted, and the percentage of a state's population that was able to register, among 14 other indicators (Gerken 2009). These phenomena affect the number of people that are able and willing to make use of voting reform laws in the American states; controlling for them is necessary to disentangle the impacts of these laws on turnout from other features of state's election administration.

Third, causal inference designs are used to isolate the impact of the voting reform laws on voting. Catalist population data includes a panel component with historical turnout rates. This allows statistical modeling of how state voting laws may be linked to changing voter turnout decisions at the individual level over time. Catalist offers sample sizes substantially larger than the CPS or CCES (a couple million versus thousands of respondents), giving greater precision to the findings derived from the dataset. This type of data has not yet been used to evaluate election laws, and this study is one of the first to do so.

As a robustness check for the Catalist data, CCES data is used with statistical matching to simulate treatment (existence of the laws) and control (absence of the laws) condition—coarsened exact matching [CEM]—to ensure that there is balance in terms of the demographic characteristics of survey respondents living in states with convenience voting laws and individuals living in states without such laws. This statistical matching involves three different treatment and control groups, with the treatment groups consisting of individuals in states with one of the three convenience voting laws, and the control groups consisting of individuals in states without these laws.⁴ Theoretically, this severs the connection between these individual-level covariates and the laws, simulating a random experiment (Blackwell et al.

2009; Burden et al 2014; Donovan et. al. 2016). Catalist panel data and statistical matching with the

CCES data allow the study to assess the robustness of the laws' impact on participation.

Additive Modeling Technique	 Baseline model: laws plus controls Add election administration and historical turnout Interact law and electoral administration variables with individual-level income
Separate models for midterm and	Catalist turnout in 2012 and 2014 elections
presidential elections	• CCES turnout in 2008 and 2012, and 2010 and
	2014 elections
Cross-sectional and panel Catalist models	• Lagged panel models of change in voting propensity (e.g., 2010 to 2014 midterm elections, and 2008 to 2012 presidential elections).
	 Cross-sectional models examine strength of association between individual voting and a state's election laws and system.
Coarsened Exact Matching [CEM] CCES	• Used to examine if laws have significant treatment
	effects on turnout compared to control state
	Compare CCES to Catalist

 Table 2-1: Study Research Design

Data and Methods

This study measures the impact of a state's set of convenience voting laws and election administration on individual-level turnout. The unit of analysis is individuals nested within states. Individual-level population data are from the 2016 Catalist, which has record of the turnout decisions of individuals in the 2012 and 2014 elections, and the 2008-2014 CCES, which has pooled time series observations. The Catalist data is a random 1% analytic sample drawn from approximately 300 million respondents (of the 320 million Americans). Catalist acquires individual voting data from county and state voting records, gleans select demographic data (such as age, race, and sex) from these records, and merges this information with commercial data available from other sources. Catalist predicts the measure of other variables, such as partisanship, home ownership, education, and employment, using algorithms based on information from other variables (Ansolabehere and Hersh 2014; Hersh 2015).⁵ This study's sample includes 2,321,638 individuals for the 2012 presidential election, and 2,218,389 individuals for the 2014 midterm election across the 50 states The Catalist data was cleaned to remove individuals who were too young to have voted, were deceased, were ineligible to vote, or lacked key demographic information.

The CCES is a survey dataset. The CCES is conducted in two-stages for every election. On the pre-election stage of each survey, information is acquired on respondents' demographics, partisanship, and vote intentions. On the post-election stage, information is provided on how respondents voted. For each CCES, half of the state samples are randomly selected, with the other half are matched to this randomly selected one to create representative state samples (CCES 2014, 12-19). In this study, the sample size includes approximately 105,000 individuals from the 2010 and 2014 midterm elections, and 85,000 individuals for the 2008 and 2012 presidential elections. Compared to the American National Election Studies' and CPS surveys, Catalist and CCES datasets are preferable because they include both representative state samples and party identification variables. These allow for more precise estimates of voting outcomes. To prepare the CCES for this study, validated vote data was used to establish the voting records of all survey respondents. While the CCES is employed to robustness check the Catalist models, the results derived from the Catalist models are considered to be of higher quality because the CCES is an internet-based survey that is overrepresentative of populations more likely to have broadband access.⁶

State-level data on VAP turnout comes from the United States Elections Project (McDonald 2016a). Depending on the years the dependent variable is measured, the past turnout measure is a state's average turnout from 1980 until two years before the observed vote measure. EPI data comes from the Pew Charitable Trusts (2016). The EPI is a 17-component summary index that takes accounts of various aspects of a state's election administration, including data completeness, disability or illness relation voting problems, mail ballots rejected, mail ballots unreturned, military and overseas ballots rejected, mail ballots rejected, registration availability, postelection audit requirements, provisional ballots cast, provisional ballots rejected, registration or absentee ballot problems, registrations rejected, residual vote rates, registration rates, turnout rates, voting information lookup tools, and voting

wait times. This combined VAP-EPI measure captures both the accessibility of a state's voting system, as well as a state's legacy of promoting or hindering turnout.

Data on the presence of election reform laws (early voting, no-excuse absentee, mail voting, or SDR voting) comes from the National Conference of State Legislatures (2016a, 2016b) and Larocca and Klemanski (2011). State-level margin of victory data comes from the Atlas of U.S. Presidential Elections (Leip 2015).

Outcome Variable

The key dependent variable is whether one voted or not in the 2008-2014 elections. These individual decisions are vote validated by checking individual claims of voting against official county and state voting records (Ansolabehere and Hersh 2014, 64; CCES 2014, 16; Hersh 2015). In the statistical models the outcome variable is dichotomous, with one indicating that an individual voted, and zero not. This variable is interpreted as the likelihood an individual voted in one of the elections.

This study also includes lagged panel models, where the dependent variable is dichotomous (1=voted and 0=non-voting) and includes a lagged term (independent variable) for voting in the previous election. The outcome of the panel models is interpreted as the change in the probability an individual will vote from one election to the next. The panel models provide an improvement in modeling turnout by predicting the change in the probability of voting.

Explanatory Variables

The key individual-level explanatory variable is an ordinal income measure.⁷ Income is the proxy for respondents' socioeconomic status, and a key covariate related to voting and use of convenience voting laws (Leighley and Nagler 2014; Wolfinger and Rosenstone 1980). For the Catalist models, this measure ranges from 0 (representing no reported income), to 15 (indicating wealth greater than \$141,000); for the CCES models, it ranges from 0 (no reported income), to 10 (greater than \$100,000). Employing this scaling allows for maximum variation of the income variable, enhancing the likelihood of

capturing any effects of income level on one's likelihood of voting. Since individuals with no reported income might bias the estimates of these coefficients, an additional binary variable is created indicating if an individual is missing a response on this measure (Cohen and Cohen 1985). Additionally, key state-level covariates are a state's set of voting reform laws (three binary variables indicating if a state has early, no-excuse absentee/mail, and SDR voting), and a state's VAP-EPI measure.

At the individual and state-levels, a number of control variables are included to mitigate any spurious relationships between election laws and turnout. At the state-level, an important control is the competitiveness of state-level elections, since more competitive elections are associated with more active campaigns and higher turnout (Rosenstone and Hansen 2003).⁸ This variable captures a candidate's margin of victory in presidential election years, and the margin in the closest statewide election in midterm years (gubernatorial, senatorial, or average across all House districts if neither of the other seats is subject to election). It represents the margin separating the election victor in a state from the loser. To make this variable's results more interpretable, the margin of victory is subtracted from 100 so that higher values indicate higher-levels of competition within a state.

At the individual-level, variables are incorporated that are drawn from the socio-economic status (Leighley and Nagley 2013; Schlozman et al. 2013; Verba et al. 1995; Verba and Nie 1972; Wolfinger and Rosenstone 1980) and election reform law (Burden et al. 2014; Hanmer 2009) models of voting. These covariates include a respondent's gender (male), race (African American, Hispanic, Asian, or Other Race⁹), and partisan status (Republican or Democrat). Information is also included about whether one owns a home and is employed. These are all binary variables. As for ordinal or continuous variables, the models include age, education, length of residence, and political interest. A list of these individual-level variable and their coding is included in this study's Appendix B section.

Results and Analysis

An additive modeling technique is employed to see how the effects of the laws change (or do not change) when incorporating the historical turnout and election performance index covariate into the

statistical analyses. Interactions between individual-level income, the VAP-EPI measure, and all three voting reform laws are also specified at other stages of the analyses. Tables 2-2 through 2-5 present the Catalist results, while Tables 2-6 through 2-11 present the CCES results. The first two tables examine one's likelihood of voting in the 2014 election, and change in likelihood of voting from the 2010 election to the 2014 election. The second two tables perform the same types analyses on the 2012 presidential election, and change in likelihood of voting in likelihood of voting from 2008 to 2012. The next six tables replicate the Catalist models with statistical matching models for each election law in both presidential and midterm elections. Key covariates are presented in the tables; the full tables are available in the Appendix C. Predicted probabilities are also derived for all significant key covariates to test for substantive significance.

Simple bivariate relationships comparing convenience voting and non-convenience voting law states indicate that higher turnout can – to some degree – be attributable to all of the laws. Because the Catalist dataset is so large, and is randomly drawn from Catalist's full sample of 260 million American respondents of voting age, these bivariate estimates are akin to treatment estimates of the laws' impacts on turnout. In the 2014 midterm election, turnout was 3% higher in early voting compared to non-early voting states, 5% higher in no-excuse absentee or mail than non-mail ballot states, and 13% higher in SDR relative to non-SDR states. In the 2012 election, turnout was 0.3% higher in early voting states, 4% higher in no-excuse absentee or mail voting states, and 9% higher in SDR states. These percentages are equivalent to thousand to hundreds-of-thousands more ballots cast in these elections due to voting reform laws.¹⁰ Difference of means tests indicate that all these differences are statistically significant.

Multivariate Analyses

Midterm Election (Catalist)

The multivariate analyses in Tables 2-2 through 2-5 test to see if these bivariate causal relationships withstand control for other factors related to turnout. Table 2-2 examines how strongly

associated state election administration and convenience voting laws are with turnout in midterm elections. Early voting has a significantly positive effect on turnout, but only after controlling for the accessibility of a state's election administration (columns two, three, and four). SDR has a consistently positive effect on turnout, independent of this factor (all columns). The significantly negative interaction between SDR and income in the fifth model indicates that lower S.E.S. citizens benefit more from this law than those of higher status. A state's election administration has a significantly positive effect on turnout (columns two and three), although the fourth and fifth models indicate that this advantage accrues to those of higher incomes. After controlling for a state's election administration, one finds that early voting and SDR have positive and robust effects on turnout.

Figures 2-2 and 2-3 display predicted probabilities from Table 2-2 to test the substantive impact of SDR (column one) and a highly performing state election administration (column two) on turnout in midterm elections. Comparing individual probability of voting in SDR and non-SDR states, Figure 2 indicates that individuals residing in states with this law have a 11% higher likelihood of voting. Figure 3, varying state VAP-EPI values from their greatest (e.g., Minnesota) to lowest values (e.g., Mississippi), shows that citizens in states with a high performing election administration are 10% more likely to vote. Both SDR and an accessible election administration are key factors in shaping individual-level turnout in midterm elections.

Systems (Catanst)					
	Baseline	Election	Income*	Income*	Full
		Administration	Voting Laws	Administration	Interaction
Early Voting Law	0.189	0.288^{*}	0.444^{**}	0.285^*	0.333
	(0.160)	(0.160)	(0.211)	(0.157)	(0.216)
Absentee/Mail	-0.035	-0.089	-0.142	-0.080	-0.098
Voting Law	(0.149)	(0.145)	(0.224)	(0.143)	(0.214)
SDR Law	0.449^{***}	0.281^*	0.307^{**}	0.286^{*}	0.528^{**}
	(0.136)	(0.144)	(0.152)	(0.148)	(0.162)
State Election		0.018^{**}	0.018^{**}	0.003	-0.004
Administration		(0.007)	(0.007)	(0.010)	(0.010)
(VAP-EPI)					
Household Income	0.001	0.002	0.010^{*}	-0.084**	-0.114***
	(0.005)	(0.005)	(0.006)	(0.035)	(0.029)
Income*Early			-0.016		-0.005
Voting			(0.010)		(0.009)
Income*Absentee/			0.006		0.002
Mail Voting			(0.012)		(0.010)
Income*SDR			-0.002		-0.024**
			(0.010)		(0.009)
Income*Election				0.002^{**}	0.002^{***}
Administration				(0.001)	(0.000)
Pseudo R^2	0.146	0.147	0.148	0.148	0.148
Pseudo LL	-1,307,307.6	-1,305,816.5	-1,305,522.4	-1,304,970.0	-1,304,460.0
BIC	2,614,893.75	2,611,926.11	2,611,381.89	2,610,247.83	2,609,271.77
Observations	2,321,638	2,321,638	2,321,638	2,321,638	2,321,638

Table 2-2: Individual Likelihood of Vot	ting in 2014 Midterm	Election,	varying State	Electoral
Systems (Catalist)				

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C. The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001



Table 2-3 displays panel results on how a state's election administration and set of convenience voting laws affects a person's change in likelihood of voting from 2010 to 2014. Early voting (columns one through four) and SDR (all five columns) consistently improve an individual's probability of voting from one election to the next. A more accessible state election administration is also responsible for enhancing an individual's likelihood of voting over this span of time (columns two and three). The positive interaction effects between the income and election administration variables suggest that higher income individuals accrue more of an advantage from a more highly performing election administration (columns four and five). Lastly, S.E.S. turnout biases disappear after controlling for a state's voting system. In fact, after parsing out the influence of state election law and administration on voting, the negative income coefficients in the fourth and fifth models suggest that lower income citizens are more likely to positively change their likelihood of voting behavior from one election to the next.

Figures 2-4, 2-5, and 2-6 converts the Table 2-3 (column one) panel results into predicted probabilities, and indicate how likely an individual is change from a non-voter in 2010 to a voter in 2014 varying convenience voting laws and election administration performance. Each of these graphs examines

a subsample of non-voters in 2010. Figure 2-4 shows that individuals in SDR states are 6% more likely to change from non-voters to voters than individuals in non-SDR states. Figure 2-5 illustrates that people in early voting states are 5% more likely to convert from non-voters to voters than those who do not reside in early voting states. Varying state VAP-EPI between its minimum and maximum values, Figure 2-6 demonstrates that citizens in a state with a high performing election administration are 9% more likely than those in comparatively inaccessible voting system state to make the transition from non-voters to voters. Convenience voting laws and a high performing election administration clearly make a positive difference on turnout in midterm elections.

	Baseline	Election	Income*	Income*	Full
		Administration	Voting Laws	Election	Interaction
			C	Administration	
Vote 2010	2.056^{***}	2.056^{***}	2.056***	2.055^{***}	2.054^{***}
	(0.072)	(0.069)	(0.069)	(0.070)	(0.070)
Early Voting Law	0.306^{**}	0.399**	0.542^{**}	0.396^{**}	0.445^{**}
	(0.136)	(0.139)	(0.187)	(0.136)	(0.185)
Absentee/Mail	-0.183	-0.233*	-0.273	-0.225*	-0.237
Voting Law	(0.129)	(0.123)	(0.178)	(0.120)	(0.174)
SDR Law	0.384^{**}	0.223^{*}	0.255^*	0.228^{*}	0.451^{**}
	(0.121)	(0.127)	(0.146)	(0.131)	(0.150)
State Election		0.018^{**}	0.017^{**}	0.004	-0.002
Administration		(0.006)	(0.006)	(0.007)	(0.007)
(VAP-EPI)					
Household Income	0.002	0.003	0.011^{**}	-0.072**	-0.099***
	(0.004)	(0.004)	(0.005)	(0.030)	(0.023)
Income*Early			-0.015*		-0.005
Voting			(0.008)		(0.008)
Income*Absentee/			0.005		0.002
Mail Voting State			(0.009)		(0.008)
Income*SDR			-0.003		-0.023**
			(0.009)		(0.009)
Income*Election				0.001^{**}	0.002^{***}
Administration				(0.001)	(0.000)
Pseudo R^2	0.267	0.268	0.268	0.268	0.269
Pseudo LL	-1,123,264.6	-1,121,223.0	-1,120,992.9	-1,120,685.4	-1,120,302.0
BIC	2,246,807.72	2,242,753.86	2,242,337.65	2,241,693.35	2,240,970.39
Ν	2,321,638	2,321,638	2,321,638	2,321,638	2,321,638

Table 2-3: Change in Likelihood of Voting from 2010 to 2014, varying State Electoral Systems (Catalist: Lagged Panel Models)

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C. The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001





Note: Figures 2-5 and 2-6 predicted probabilities derived from second model of Table 2-3, with 95% confidence intervals.

Presidential Election (Catalist)

Tables 2-4 examines how strongly associated a state's election administration and laws are with turnout in the 2012 presidential election. First, SDR is the only law that has a significantly positive effect turnout (all columns), even after controlling for a state's election administration. Second, income has a statistically significant impact on turnout in the first three models. Higher income citizens are more likely to cast ballots in presidential elections, all else held constant. Third, interactions in the third and fourth models show that early voting is more advantageous for low income citizens in presidential elections; conversely, SDR and a high performing election administration are more beneficial for high income citizens in these elections. While convenience voting laws and election administration shape turnout in presidential elections, they have a more identifiable impact on turnout in midterm elections.

Systems (Catalist)					
	Baseline	Election	Income*	Income*	Full
		Administration	Voting Laws	Election	Interaction
				Administration	
Early Voting Law	0.037	0.057	0.239	0.065	0.228
	(0.135)	(0.127)	(0.173)	(0.128)	(0.186)
Absentee/Mail	0.002	0.001	-0.102	-0.002	-0.113
Voting Law	(0.131)	(0.124)	(0.202)	(0.125)	(0.201)
SDR Law	0.373^{**}	0.318^{*}	0.111	0.313^{*}	0.176
	(0.179)	(0.173)	(0.237)	(0.172)	(0.252)
State Election		0.009	0.008	-0.004	-0.000
Administration		(0.009)	(0.009)	(0.014)	(0.014)
(VAP-EPI)					
Household Income	0.008^{*}	0.008^{*}	0.014^{**}	-0.070	-0.040
	(0.005)	(0.005)	(0.005)	(0.043)	(0.048)
Income*Early			-0.023**		-0.021
Voting			(0.012)		(0.013)
Income*Absentee/			0.014		0.015
Mail Voting			(0.013)		(0.013)
Income*SDR			0.025^{**}		0.017
			(0.012)		(0.012)
Income*Election				0.001^*	0.001
Administration				(0.001)	(0.001)
Pseudo R^2	0.142	0.142	0.142	0.142	0.143
Pseudo LL	-1,278,392.9	-1,278,043.4	-1,276,968.2	-1,277,381.2	-1,276,722.3
BIC	2,557,063.51	2,556,378.99	2,554,272.44	2,555,069.33	2,553,795.27
Observations	2,218,389	2,218,389	2,218,389	2,218,389	2,218,389

 Table 2-4: Individual Likelihood of Voting in 2012 Presidential Election, varying State Electoral Systems (Catalist)

Table 2-4: Continued

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C. The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, *** p < 0.05, **** p < 0.001

Table 2-5 estimates how an individual's likelihood of voting changed from 2008 to 2012. SDR is the only law to have an independent and positive effect in changing an individual's probability of voting across these two elections. In the first through third models, more affluent individuals are more likely see an increase in their likelihood of voting. This effect, however, disappears in the fourth and fifth models, suggesting that the higher propensity of voting among higher income citizens is less due to their demographic characteristics, and more to the accessibility of their state's voting system. The interaction variables indicate that early voting uniquely advantages lower income citizens, while SDR and accessible voting systems advantage those of higher income, from 2008 to 2012. Overall, the lower number of positive effects associated with convenience voting laws and election administration in presidential elections indicates these factors make more of a difference on individual-level turnout decisions in the lower salience midterm elections.

	Baseline	Election	Income*	Income*	Full
		Administration	Voting Laws	Election	Interaction
				Administration	
Vote 2008	1.883***	1.883***	1.882^{***}	1.882^{***}	1.882^{***}
	(0.070)	(0.069)	(0.070)	(0.070)	(0.070)
Early Voting Law	0.087	0.102	0.305^{*}	0.109	0.295
	(0.116)	(0.113)	(0.172)	(0.113)	(0.183)
Absentee/Mail	-0.032	-0.032	-0.154	-0.036	-0.164
Voting Law	(0.104)	(0.100)	(0.182)	(0.101)	(0.182)
SDR Law	0.349^{**}	0.310^{**}	0.152	0.306^{**}	0.208
	(0.127)	(0.125)	(0.176)	(0.124)	(0.191)
State Election		0.007	0.005	-0.004	-0.002
Administration (VAP-FPI)		(0.008)	(0.008)	(0.012)	(0.012)
Household Income	0.012^{**}	0.013**	0.020***	-0.055	-0.027
	(0.004)	(0.004)	(0.005)	(0.039)	(0.045)
Income*Early	` '		-0.026**	. ,	-0.024*
Voting			(0.012)		(0.014)

Table 2-5: Change in Likelihood of Voting from 2008 to 2012, varying State Electoral Systems (Catalist; Lagged Panel Models)

Table 2-5: Continued					
Income*Absentee/			0.016		0.017
Mail Voting			(0.013)		(0.013)
Income*SDR			0.019^{**}		0.012
			(0.009)		(0.010)
Income*Election				0.001^{*}	0.001
Administration				(0.001)	(0.001)
Pseudo R^2	0.242	0.247	0.248	0.248	0.248
Pseudo LL	-1,128,195.8	-1,120,848.2	-1,119,991.0	-1,120,434.6	-1,119,837.6
BIC	2,256,669.27	2,242,003.19	2,240,332.74	2,241,190.60	2,240,040.59
Observations	2,218,389	2,218,389	2,218,389	2,218,389	2,218,389

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C. The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, *** p < 0.05, **** p < 0.001

Robustness Check (CCES-CEM Models)

CEM models are used identify the sample average treatment effects for all three election laws. Six additional tables (located in Appendix D) with five models each are employed to replicate the Catalist models; Tables D2-1, D2-2, and D2-3 identify early, absentee, and SDR sample treatment effects for the 2014 midterm election, while Tables D2-4, D2-5, and D2-6 do the same for the 2012 presidential election. The treatment groups consist of individuals in states with one of the election laws, while control groups are individuals in states without these laws. Individuals are matched using income, education age, gender, and race variables. The multivariate imbalance measures, or L1 statistics, ranges from 0.37 to 0.45 across these models, indicating that the models are relatively well-balanced. Only individuals who are matched are included in each of the samples; this leads to a slight reduction in the sample sizes, but the number of observations is still large and allows for precise estimation. The pooled time series structure of the CCES data also allows for a test of the effects of the laws across multiple elections. Matching eliminates any confounding influence associated the performance of these laws. The control variables from the Catalist model are also incorporated into the matching models.

Tables D2-1 through D2-3 reports three models on the treatment effects of the voting laws in the 2010 and 2014 midterm elections. As in the Catalist models, Table D2-3 replicates the positive impact SDR has on turnout. However, unlike the Catalist results, Table D2-1 indicates that early voting has no

impact on turnout; rather, as shown in Table D2-2, absentee/mail voting has a positive effect on turnout in midterm elections. How does reconcile these seemingly disparate findings between absentee/mail and early voting in midterm elections? One explanation might be due to the differences between the Catalist and CCES datasets. Catalist is a larger dataset than the CCES, and allows for the construction of panel models and stronger research designs to identify the effects of these laws. Catalist is also less subject to the sampling biases that make the CCES overly representative of citizens who have access to the internet (e.g., higher socio-economic class citizens).¹¹ This rationale suggests that the Catalist early voting results are more robust. The midterm election the CEM results add strength to the claim that convenience voting laws (particularly SDR voting) has a significant impact on turnout in these elections.

Lastly, Tables D2-4 through D2-6 report the treatment effects of the three convenience voting laws on turnout in the 2008 and 2012 presidential elections. The only positive and significant effect is associated with SDR voting (Table D2-6), which is consistent with the Catalist outcomes. There are no significant treatment effects attributable to early voting (Table D2-4) or no-excuse absentee/mail voting (Table D2-5). These are consistent with the findings derived from the corresponding Catalist models. Overall, the CEM results confirm that convenience voting laws can have a positive impact on turnout, particularly in midterm elections.

Conclusion

The objective of this study was to reassess the impact of absentee/mail, early, and SDR voting alongside the performance of a state's election administration. Key election law findings are summarized in Table 2-6. Early and SDR voting enhance turnout levels, primarily in midterm elections. These two modes of voting also help non-voters into voters. States with a more highly performing election administration also have individuals who are more likely to vote in midterm elections, independent of the effects of the reform laws. These results also corroborate parts of the accessible voting model presented in Chapter 1, namely the roles of convenience voting laws and a highly performing state election administration in shaping turnout at the individual-level.

	Early Voting	Absentee/Mail Voting	SDR Voting		
2012 Presidential Election			✓ (+)		
2014 Midterm Election	✓ (+)	✓ (-)	✓ (+)		

 Table 2-6: Election Laws with Statistically Significant Effects on Turnout

These are new findings in the literature on accessible voting. Most studies have concluded that early, absentee, and mail voting have had a minimal effect on voting and worsen participatory inequality (see Berinsky 2005; Gronke et al. 2008). No study has shown the laws to change the composition of the electorate, that is, bring new people into the electorate and thereby enhance their representation. This study demonstrates that the negative effects of early voting, absentee, and mail voting laws are overstated, and that these laws can have improve political participation.

This study has several implications for future research. First, this study shows how a state's election administration is a central component in the assessment of voting reform laws (Alvarez, Atkeson, and Hall 2013; Gerken 2009). Second, since most states have combinations of voting reform laws, one needs to simultaneously control for these law in statistical models to identify their independent effects on turnout (Burden et. al. 2017, 2014; and Springer 2014). Third, the study illustrates that using sample population data (Catalist) offers advantages to using survey data (CCES or CPS) to evaluate the effects of these laws. This large dataset, with controls for confounding variables such as party identification and news interest, facilitates more precise estimates of the effects of convenience voting laws on turnout. This accessible voting empirical framework opens new doors for future research on voting reform laws.

Chapter 3

Poor Turnout and Accessible Voting

Forty years ago, Piven and Cloward in Poor People's Movement (1977) argued the American electoral system disadvantaged poor people's involvement in politics. E.E. Schattschneider (1960) in the landmark book The Semi-Sovereign People frames his study around a thought experiment imagining the political system if all people voted, including the poor and disadvantaged. He argued the political parties would respond by promoting policies that were more representative of the poor and working classes, not just the business class and affluent. Contemporary U.S. and global politics has experienced rapidly increasing economic inequality (Solt 2008, 2010). Larry Bartels in Unequal Democracy (2008) uses roll call voting to show that U.S. Senators from both political parties are responsive to middle and very responsive to the upper classes, but not to the lowest class (represented by the bottom third of the income distribution). The poor only benefit when their preferences align with the middle and affluent classes. Gilens (2012) finds a similar pattern with policy representation, demonstrating that when the policy interests of the affluent and less well-off diverge, individuals at the 90th income percentile have a significant influence on policy change, but none for 10th percentile income earners. Elected officials most value the input of those with property and capital (Keyssar 2009, 39-40; Hacker and Pierson 2010; Schattschneider 1960, 34-35). Building on these studies on inequality in American politics, this chapter explores whether voting and registration reforms in the U.S. states benefit economically disadvantaged citizens. While substantial literature has explored inequality and representation, few scholars have focused on poor citizens and political participation (see Brians and Grofman 2001; Rigby and Springer 2011 for exceptions).

Disparities in voter turnout rates based on wealth or income have been constant features of American politics. Figures 3-1 and 3-2 give a picture of turnout across income groups in two recent elections, drawing on the U.S. Census's Current Population Survey [CPS]. In the 2012 presidential election, 45% of those at or below the federal poverty line voted, compared to 64% turnout of those above

the poverty line. During the 2014 midterm election, just one in four (25%) of the poor voted, relative to 40% of the non-poor (CPS 2016). Another way to measure turnout inequality is the percentage of the electorate that falls into different income categories. In the controversial 2016 election, 12% of the voting age population consisted of individuals below the federal poverty rate. This compares to 25% of the voting age population that earned a household income of \$100,000 or more (U.S. Census 2017). Clearly, there continues to be disparities in voting between the well-off and less-well-off.

Chapter 2 found that that early and Same Day Registration [SDR] voting laws can have a positive impact on overall turnout, after controlling for the accessibility of a state's electoral system. These laws also were found not to be specifically biased against individuals from different economic strata. But do these laws increase turnout of one of the most marginalized voting groups in American political history – the poor? The true test of an accessible voting electoral system is if it benefits the most disadvantaged members of society. A more rigorous test of the theoretical framework focuses on turnout rates of poor people (a subsample) in relation to state election reform laws. By doing so, the work contributes to the growing literature on inequality and politics discussed above.

Poverty is a systemic feature across the American states. It is neither geographically limited to a specific region of the country, associated with a single demographic group, nor is it an issue of recent historic vintage. Figure 3-3 shows how widespread poverty in America, displaying the percentage of households in poverty across the nation's 3,000 plus counties. While the South has historically had the highest rates of overall poverty and children in poverty, the Southwest and the Northeast also have large poor populations. All states have some degree of poverty. Political inequality tends to map onto economic inequality.

A lack of civic skills, time, and money (political resources) are recognized as key factors in lower political participation rates among the poor (Schlozman et al. 2013; Verba et al. 1995). Low political efficacy is also linked to decreased turnout rates (Gaventa 1980). Historically, some state electoral systems have been designed to prevent the poor from voting through poll taxes, literacy tests, and residency requirements (Keyssar 2009; Springer 2014). Powell (1986, 31) notes that what distinguishes

the U.S. electoral system from other developed democratic countries is the more pronounced impact of individual-level characteristics such as education and income on turnout. Most other established Western democracies have either automatic voter registration, compulsory voting, or both, which place less importance on these individual-level factors in effecting whether one votes. In the United States, where neither automatic voter registration (except Oregon, and California as of 2017) nor compulsory voting are law, individual determinants such as education and income are key predictors of turnout. In the absence of election reform laws, the poor – who are also more likely to have lower levels of education, and be a racial minority – are thus particularly disadvantaged politically in the U.S.

Depressed political participation by the lower and working classes has detrimental consequences for their policy representation, as discussed above. Lower turnout among the poor has limited their representation in Congress (Bartels 2008, Gilens 2012), state legislatures (Rigby and Wright 2013), and policy adoption in areas such as taxes and welfare (Erickson 2015; Franko, Kelly, and Witko 2016; Lijphart 1997). Key (1949, 319) summarizes the electoral fate suffered by the poor when he notes that "the blunt truth is that politicians and officials are under no compulsion to pay much heed to classes and groups of citizens that do not vote." Low turnout among the poor is a systemic problem with far-ranging consequences in the United States



Note: Gray shaded lines are incomes at or below the federal poverty rate for a family of four (U.S. Dept. Health and Human Services 2016).



Note: Gray shaded lines are incomes at or below the federal poverty rate for a family of four (U.S. Dept. Health and Human Services 2016).

Poverty also effects other demographic groups, such as women and racial and ethnic minorities. Historically, poverty is woven together with race and gender in explaining disadvantage in American state political systems. Schlozman, Verba, and Brady (2012, 36) use multivariate analysis to control for many covariates related to voting and find that race and gender-based participatory inequalities have their origins in economic inequality. Although race and gender play a role in policy design, lower incomes among racial minorities and females (compared to non-Hispanic White males) has further disadvantaged them in state electoral systems. Rodney Hero's (1992) paradigm of two-tiered pluralism illustrates that minorities and the poor experience a lower tier of American politics, encountering substantial barriers to voting, including recently enacted voter ID laws to vote (Barreto, Nuno, and Sanchez 2009).



Figure 3-3: Percent in Poverty across American Counties, 2011-2015

Data: American Community Survey, 2011-2015

Accessible Voting Systems and the Poor

Do convenience voting laws – absentee/mail, early, and SDR voting – counter these historical trends of depressed turnout among the economically marginalized? This is an active area of debate within election reform law research; interestingly, though, it is rarely empirically studied. One perspective holds that, except for SDR, absentee, early, and mail voting tend to retain active members of electorate rather than stimulating turnout among less active members of the electorate (Berinsky 2005; Brians and Grofman 2001; Fitzgerald 2005; Gronke et al. 2008a; Karp and Banducci 2001). That is, these laws mainly benefit the affluent, rather than the economically marginalized. Turnout among the poor, according to this viewpoint, does not increase.

Conversely, a second perspective holds that the effects of all these laws are structured by a host of factors, such as election administration (Stewart 2008), party mobilization, state political culture, and the existence of other reform laws (Burden et al. 2014; Donovan 2008; Hanmer 2009; Leighley and Nagler 2014). The previous chapter drew from this literature, and demonstrated that early and SDR voting have more beneficial impacts on turnout than previously known. None of these studies, however, has directly
examined the effects of these laws on turnout of poor citizens, while controlling for the accessibility of a state's electoral system.

This study makes several critical contributions. Large samples of individuals living at or below the federal poverty line are used from Catalist and the Cooperative Congressional Election Study [CCES], together amounting to nearly 400,000 observations for the 2008, 2010, 2012, and 2014 federal elections. No previous study has examined samples of poor citizens this large, and this factor facilitates more precise estimates of the effect of these laws on their turnout. Since subsampling is comparable to executing interactions between the poor and state electoral system variables, this design can identify unique effects of state voting laws on participation rates. While comparative politics regularly measures electoral systems, this concept is not often measured in studies of voting behavior in the U.S. Covariates estimating the impact of multiple convenience voting laws, state election administration (EPI), and historical turnout are included in statistical models, allowing for a more complete measure of *state electoral systems*. Panel data and statistical matching are utilized to add causal leverage in calculating how state electoral systems relate to poor participation. Measures of electoral competition are analyzed alongside the electoral system variables, capturing state variations in competitive campaign environments that are related to voter mobilization and affect usage of voting reform laws.

The statistical models include individual-level partisanship and political interest variables, not readily available in Census data used by most previous scholars. Finally, both presidential and midterm elections are analyzed, enabling the study to determine if poor use of these laws are more prevalent in higher turnout presidential elections (Hill and Leighley 1994), or during low stimulus midterm elections. Many previous studies have focused on presidential elections, omitting midterm elections.

The results suggest that convenience voting laws (absentee/mail, early, and SDR voting) are more beneficial to the economically marginalized that previously understood. Convenience voting laws might be used to re-shape the electorate to benefit the economically disadvantaged as envisioned by proponents of full voter turnout like E.E. Schattschneider.

Preliminary data from the U.S. government hints at the beneficial nature of the state election reform laws. Recent descriptive data indicates that the poor and non-poor utilize state voting and registration laws at similar rates. The U.S. Census CPS reports that in the 2014 midterm election 63% percent of poor citizens voted in-person on Election Day, 10% percent voted early, 20% percent voted absentee or by mail, and 7% percent registered to vote and cast a ballot on the same day (SDR). The comparative rates for the non-poor for each mode of voting are 65% percent, 10%, 19%, and 7%. If one compares the frequency with which poor and non-poor Americans use alternative modes of voting, there is little difference. Of course, multiple causes of voting are not analyzed by the descriptive turnout data.

The Case: Poor Participation

What does the literature say about poor participation, and why would we expect these laws to have an impact on their turnout? Why do the destitute have lower propensities to vote than the better-off? As discussed above, the civic voluntarism theoretical model here is a useful heuristic. This framework, developed in two seminal works (Schlozman, Verba, and Brady's 2012; Verba, Schlozman, and Brady 1995), explains how socio-economic inequalities are translated into participatory biases. Using survey results with information on respondent demographic characteristics as well as engagement in multiple forms of political participation (e.g., voting, contacting politicians, making donations, writing a letter, etc.), these researchers identify a socio-economic gradient undergirding all these forms of participation. On this gradient, lower socio-economic class citizens are less likely to have the wealth that is needed to make donations; to have the education that is highly correlated with the political interest and knowledge factors that motivate citizens to go to the polls; and to be active members of organizations that nurture the development of civic skills (e.g., letter writing, public speaking, and planning) germane to public engagement. Similarly, Leighley and Nagler (2014) as well as Wolfinger and Rosenstone (1980) examine this phenomenon using CPS data and multivariate regression, and find the socio-economic gradient to be present in voting – affluent individuals are significantly more likely to participate than the less well-off. Without the aid of election reform laws, the poor lack the resources needed to be more active voters.

However, Schattschneider (1960, 34-35) points out that lower turnout among the poor is an outcome of a political system that largely excludes their policy interests: "The flaw in the pluralist heaven [the competition between the interest of the non-poor and poor in society and government] is that the heavenly chorus sings with a strong upper-class accent. Probably about 90 percent of the people cannot get into the pressure system." Compared to the poor, the affluent have greater levels of financial resources to command the attention of political elites. They also tend to vote at higher rates, and can disproportionately dictate the terms of discourse in politics, to the exclusion of the poor. Schattschneider's point is that neither major political party offers policy platforms reflecting interests of the poor. With no policy representation, the poor are given limited incentive to vote; however, because of this low participation, politicians have limited reason to be responsive to their interests

The electorally disadvantaged, however, can find recourse in laws that enhance their participation. Schattschneider (1960, 70, 96-97) notes that political power is mainly exercised through procedures, including "institutions" such as election laws and political parties. If election procedures are altered, he implies, changes in the political system can be wrought to benefit marginalized voting groups. He argues that if election procedures were altered to bring more excluded voting groups into the fold and increase turnout, there would be significant changes in public policy. In a reciprocal relationship, higher turnout among the poor would lead to greater government elite support of social welfare and New Dealtype policies, while greater government support of these issues would reinforce higher turnout among the poor.

Although this study only addresses how alterations in election procedures affect turnout among the poor, there are two important implications to draw from Schattschneider's research. One, election procedures can be and are altered to bring new voters into the fold; and, two, more poor people would vote if the government gives attention to their policy concerns. Government policies like election reform laws can shape turnout.

There is well-documented evidence that poor engagement in politics is driven by the policy environment. Reduced turnout among the poor is not surprising, given that Bartels (2008) finds that U.S.

Senators are more responsive to the rich, Gilens (2012) finds that most policy change is influenced by those in the 90th income percentile, and Rigby and Wright (2013) find that the policy positions taken by state parties are nearly exclusively influenced by those with the highest incomes. Government and party elites who are unresponsive to policy interests among the poor are unlikely to encourage higher turnout among this demographic. Second, Leighley and Nagler (2014, Chapter 5) examine how a lack of meaningful choices directly affects poor turnout. Using the 1972-2008 American National Election Studies [ANES], the authors measure how voters of the 1st through 5th income quintiles view the policy positions of two competing candidates, and to what degree this perception of difference predicts turnout. They find that low income voters are far less likely than those of high income to detect a difference. If the poorest (1st quintile) perceived as much of a difference between the two candidates as the affluent (5th quintile), they predict turnout among the poorest would increase by 3.5 percentage points (Leighley and Nagler 2014, 139). When the poor do not feel they have a meaningful say in politics, they will not choose to vote.

Third, policy experiences of the poor and related groups (e.g., racial minorities) can affect incentives to participate. Soss and Schram (2011) as well as Soss (2000) find that certain welfare systems foster higher political efficacy and participation habits among the poor. Similarly, Hersh (2015, 59-60) notes that political campaigns and candidates increasingly draw on data science and U.S. Census data to identify neighborhoods for canvassing based on their socio-economic status, which may increase participation by the poor.¹² If some campaigns see a reason to target individuals in areas that hold disproportionately high levels of impoverished citizens, they will mobilize them to vote. Although any given individual targeted in such an area is not necessarily poor (i.e., ecological fallacy), parties and campaigns do make voter recruitment plans using this information. If these plans result in a poor person being targeted, this might motivate them to go to the polls.

In another example of policy mobilizing the indigent, Piven and Cloward (1977) use case studies to examine patterns of poor participation in several different policy arenas (unemployment, union rights, civil rights, and welfare) over the course of the twentieth century. These are issue areas in which the poor

have had a high stake, and have been motivated to vigorously engage in many forms of political participation (e.g., voting, protests, strikes) to impel government and corporate leaders to yield to their demands.¹³ These researchers find that the status quo of low participation by the poor can be broken during times of economic disruption and deprivation for the poor, which prompts them to engage in these forms of participation. Political elites, seeking to placate the interests of the poor, recognize and enact into law some of their policy goals. The key point here is that policy – social welfare, data collection, campaign recruitment, and so forth – shapes participation among the poor.

If welfare, campaign, and other policies can shape poor turnout, then election reform laws and election administration may also shape turnout of this demographic group. But why should one care about turnout among the poor? Because it has direct implications on policy outcomes. Many researchers (Hill, Leighley, and Hinton-Andersson 1994; Franko, Kelly, and Witko 2016; Lijphart 1997; Pacek and Radcliff 1995) find that when there is higher turnout among the least wealthy, or when there are lower turnout disparities between the lowest and highest income groups, government policy creation and support becomes more aligned with the interests of the poor. Franko, Kelly, and Witko (2016), for instance, find that less class bias in turnout is associated with more liberal state governments and economic policies, political outcomes favoring the poor. As illustrated in this study, a state's election reform laws and administration meaningfully changes turnout among the poor.

Poor Participation and Convenience Voting Laws

Almost no scholarly research has specifically focused on turnout of the poor defined by the federal poverty rate. Several scholars emphasize how state election laws effect the turnout of different income groups using an ordinal income measure, income quintiles, income quartiles in combination with education, neighborhood poverty, and state per capita income as measures of socio-economic status (Brians and Grofman 2001; Dyck and Gimpel 2005; Gronke, Galanes Rosenbaum, and Miller 2008b; Karp and Banducci 2001; Karp and Banducci 2000; Monroe and Sylvester 2011; Richey 2008). Previous

studies have not been designed to analyze a subsample of poor turnout due to data limitations, smaller sample sizes, or because they had a different research focus.

Much of the election reform research offers few reasons to expect turnout among low income citizens to be improved by accessible laws. Examining the full range of reform laws, the existing literature tends to find that income has a limited effect on turnout, or that increased wealth is positively related to turnout (Leighley and Nagler 1992).¹⁴ But previous research has not explored the potential interactive effects of state electoral systems on different income groups using interaction models (or subsamples) to test if convenience voting laws and election administration performance advantage or disadvantage the poor. Neither do they control for a state's election administration, potentially masking the unique effects of the laws on voting. Bowler and Donovan (2008), Donovan (2008), Burden et al. (2014), Berinsky (2005) argue that citizens will take advantage of these voting laws if they are mobilized to do so, but measures of electoral competition often are omitted. Several studies (Karp and Banducci 2000; Gronke, Galanes-Rosenbaum, and Miller 2008b; Richey 2008) use state-level aggregate analyses, making it difficult to control for individual-level motivational factors associated with the use of convenience voting laws. Additionally, most of these studies are limited to single states or counties (Karp and Banducci 2000; Dyck and Gimpel 2005; Monroe and Sylvester 2011; Richey 2008), are focused on only one reform law (Brians and Grofman 2001; Monroe and Sylvester 2011; Richey 2008), or are limited to presidential elections (Brians and Grofman 2001; Richey 2008; Burden et al. 2014). Most of the research was conducted more than a decade ago, when the expansion of state voting and registration laws was not as widespread.

An exception is the work of Rigby and Wright (2011), who use aggregate 1988-2000 CPS data to examine how early, absentee, SDR, and other election reform measures shape turnout ratios between the rich (family incomes four times the federal poverty threshold) and the working class (two times this threshold). Among these laws, they only find that early voting has an effect, and this effect takes the form of exacerbating turnout inequalities between the rich and the working class. Exploring aggregate turnout from 1920 to 2000 using cross-sectional time-series models, Springer (2014) finds more affluent states

with higher per capita income have higher turnout in presidential elections. However, Rigby and Wright's (2011) and Springer's (2014) use of aggregate state level measures does not allow them to understand the mechanism for voting decisions, especially among the poor. The Rigby and Wright (2011) and Springer (2014) data records also end in 2000, before many states adopted absentee/mail, early, and SDR voting. Changes in the accessibility of state electoral systems over the past decade-and-a-half merits an update of their results.

More recent research using causal inference and geographic generalizability improves the study of election reform. As discussed in Chapter 2, Burden et al. (2014) uses individual and county-level data from all fifty states with multinomial statistical models to show that higher income citizens are more likely to cast a ballot using absentee and early voting in presidential elections than citizens with lower income. As discussed in the previous chapter, Hanmer (2009, Chapters 3 and 6) applies difference-indifferences models to compare turnout by income quartiles in two SDR and closely matched non-SDR states. He finds that SDR increases turnout among the young and low educated. Although his study does not show an increase in turnout among the poor, his findings suggests that SDR may hold promise for the poor as well.

Other encouraging research indicates that SDR increases turnout among those of lower income in a broader range of states. Leighley and Nagler (2014, Chapter 4), as an example, use temporal state adoptions as a treatment effect to study voter turnout by different demographic groups, including income quintiles. They find that first wave (Maine, Minnesota, and Wisconsin) and third (Iowa, Montana, and North Carolina) wave SDR state adopters have the largest effect in boosting turnout among those in the second lowest income quintile (almost 6% for wave 1, and 2% for wave 3). This is the working poor, just above the federal poverty rate. However, the most affluent voters (5th quintile) benefit the most among the second wave SDR states. But their multivariate analyses do not provide any evidence that early or absentee/mail increase turnout of the poor. The extant research provides mixed evidence about the potential of convenience voting laws to increase turnout of the poor. Although these scholars offer more comprehensive analyses, they still do not measure how a state's set of convenience voting laws, election administration, and historical turnout levels affects poor turnout. A state's election administration and historical turnout are strongly correlated with voting reform laws (see Chapter 2) and need to be included to parse out the independent effects of the laws on turnout. Given the increased presence of these laws in the states over this period, the findings of previous research need to be updated. Most importantly, the existing research does not directly measure turnout decisions among poor citizens, missing opportunities to identify unique effects associated with various income groups.

Poor Participation and Election Administration

Another gap in the literature on poor turnout and election reform laws is the dearth of controls for a state's election administration framework. As demonstrated in Chapter 2, variations in election administration across the fifty states are equally important in shaping voter registration and turnout propensities. Voting decisions among the poor are likely shaped by this factor. Poor citizens are more likely to participate in elections if voting machines are easier to use (Ansolabehere and Stewart 2005; Stewart 2014); if a state has flexible provisional voting laws that do not penalize citizens for casting ballots in the wrong precinct (Hanmer and Herrnson 2014); and if poll workers provide any assistance needed by poor citizens to vote (Alvarez et al. 2013, 29). As discussed in Chapter 1, Gronke (2009) also notes that citizens are more confident in early voting and mail voting is poll workers are well-trained, providing direct evidence on how a state's election administration shapes individual-level turnout.

Regarding this chapter, there are two important implications to draw pertaining to a state's election administration and the effect of convenience voting laws on poor turnout. One, it is essential to control for a state's election administration to parse out the independent effects of convenience voting laws on turnout among the poor. Two, the poor are more likely to cast ballots using these laws if they are confident that they can register if they want to, can vote if they choose, and be confident that their vote will be counted (Alvaerz, Atkeson, and Hall 2013; Gerken 2009) In a unique contribution to the literature

on poor turnout and election reform laws, this study estimates the effects of a state's election administration alongside these laws.

Research Hypotheses

This study tests four causal linkages from the accessible voting model delineated in Chapter 1. These include the links between (1) a state's set of election reform laws as well as (2) administration on individual-level turnout among the poor, and (3 and 4) the relationship between these factors and the level of turnout inequality in a state. Regarding the second link, states are presumed to have less turnout inequality at the individual-level if poor citizens exhibit a greater likelihood of voting because of these features of a state's electoral system. Four key hypotheses are derived from this framework: All else held constant,

H1: Poor individuals will more likely to vote in states with a more highly performing election administration.

H2: Poor individuals will be more likely to vote in states with early voting

H3: Poor individuals will be more likely to vote in states with no-excuse absentee or mail voting

H4: Poor individuals will be more likely to vote in states with SDR.

Data and Methods

In this study, logistic regression models – comparing turnout to non-turnout – are used to test if convenience voting laws and election administration positively shape poor citizen turnout decisions. Panel and statistical matching models are then employed to test the robustness of the test results resulting from these models. Predicted probabilities are also derived to make the statistical results directly interpretable as percentages.

The chapter uses the Catalist and CCES datasets as in Chapter 2, but limits analysis to two large subsamples of poor citizens. The subsamples of poor citizens consist of those below the federal poverty

threshold (U.S. Department of Health and Human Services 2016). The federal and state governments use this statistic to determine citizen eligibility for various government programs, such as welfare, Medicaid, and food stamps. For a family of four, this threshold ranged from \$21,200 in 2008 to \$23,850 in 2014 (U.S. Department of Health and Human Services 2016).¹⁵ Due to the ordinal structure of the income variable in the original datasets, individuals with family incomes at or below \$25,000 were counted as the poor in the Catalist models. The CCES has a \$20,000-\$29,999 family income category, so the supplementary models use this threshold to designate poor individuals. Both these thresholds were chosen to be consistent with the Department of Health and Human Services (2016) designation of poverty. The Catalist and CCES subsamples are useful because a pool of disadvantaged citizens of this size has never been employed in the convenience voting literature; the size of the samples facilitates more precise estimates of the effects of state voting reform laws and election administration on participation among the poor. Catalist subsamples include 353,200 individuals for the 2012 presidential election, and 369,517 individuals for the 2014 midterm election across the 50 states. The CCES subsamples includes approximately 22,000 respondents who identified themselves as poor in 2010 and 2014, and approximately 18,000 for the 2008 and 2012 presidential elections. Compared to the Catalist data, the CCES may underrepresent the poor given barriers to technology access (see Mossberger, Tolbert, and Franko 2012). Employing datasets, though, gives this study the ability to robustness check and triangulate the effects of a state's electoral system on poor turnout.

The same modeling strategy employed in Chapter 2 is also used here, with a similar set of explanatory variables. The Catalist and CCES subsamples of poor citizens are merged with state aggregate variables measuring the presence of convenience voting laws and election administration to measure the accessibility of state electoral systems. To measure electoral competition across the states and different years, this study includes a variable representing the margin of victory in the 2012 presidential election, and the closest senatorial, gubernatorial, or average of House races at the state-level in 2014.

As in Chapter 2, the key independent variable are the convenience voting laws (absentee/mail, early, and SDR voting) and election administration in an individual's state. The same set of control variables from Chapter 2 are also used here to control for confounding factors related to turnout. These include income, male, age, education, African American, Hispanic, Asian, other race, non-Hispanic white (reference group), strong partisan, political interest, length of residence, employment, and home ownership. Finally, year dummy variables are used in the CCES models to control for potential temporal heterogeneity. (See Appendix B for coding and descriptions of variables.)

Results and Analysis

Before engaging in multivariate analyses, the analyses explore bivariate relationships between a state's electoral system and individual-level turnout patterns. Chapter 2 already demonstrated that there is a high correlation between a state's VAP-EPI measure and the presence of convenience voting laws. This means that one must control for a state's VAP-EPI to precisely identify the independent effects of the laws on voting decisions. Following the bivariate estimations, multivariate analyses are employed to see how the effects of the laws change (or do not change) when incorporating the VAP-EPI covariate into the models.

Do Accessible Voting Systems Increase turnout of the Poor? (Catalist)

Bivariate regressions

As with Chapter 2, simple bivariate relationships comparing accessible voting and non-accessible states are executed to estimate what degree of turnout change is attributable to the laws, before introducing control variables. Because the Catalist dataset is so large, and is randomly drawn from a full population of 260 million American respondents of voting age, these bivariate results are baseline treatment estimates of the laws' effects on turnout. Among poor citizens in the 2014 election, turnout was 4 % higher in early voting compared to non-early voting states, 6% higher in mail-in ballot versus non-

mail-in ballots states, and 9% higher in SDR relative to non-SDR states. For the 2012 presidential elections, turnout was 2% higher in early compared to non-early voting states, 6% higher in mail-in versus non-mail-in-ballot states, and 10% higher in SDR relative to non-SDR states. These percentages are equivalent to tens of thousands more ballots cast in these elections due to voting reform laws.¹⁶ Difference of means tests indicate that all these differences are statistically significant. Importantly, these findings indicate that all these laws can positively shape turnout among the poor, and that the largest effects of early voting on the poor may be in lower information midterm elections (Cain, Donovan and Tolbert 2008).

Midterm Election (multivariate regression)

Multivariate analyses in Tables 3-1 through 3-4 test to see if these causal relationships remain significant when evaluated alongside controls for other factors related to turnout using the Catalist data. The first two tables model a poor individual's likelihood of voting in the 2014 election, and change in their likelihood of voting from the 2010 to 2014 elections using a lagged panel design. The second two table perform the same analyses on the 2008 and 2012 presidential elections. Key covariates are presented in the tables; the full tables are available in Appendix C. Predicted probabilities are also derived for all significant key covariates to test their substantive significance.

Table 3-1 estimates a poor individual's likelihood of voting in the 2014 election. SDR has a consistently positive and significant impact on turnout in both models (columns one and two). Poor individuals residing in states with SDR are significantly more likely to vote in midterm elections, even after controlling for state election administration, other election laws, and history of voter turnout. The other election reform laws do not appear to have an effect.

	Baseline	Election
		Administration
	0.075	0.000
Early Voting Law	0.075	0.090
	(0.128)	(0.142)
Absentee/Mail	0.115	0.105
Voting Law	(0.125)	(0.130)
SDR Law	0.323^{**}	0.294^{*}
	(0.153)	(0.167)
State Election		0.003
Administration		(0.007)
(VAP-EPI)		
Pseudo R^2	0.119	0.119
Pseudo LL	-198,997.685	-198,990.955
BIC	398,213.308	398,212.668
Observations	369,517	369,517

Table 3-1: Poor Person Likelihood of Voting in 2014
Midterm Election, varying State Electoral Systems
(Catalist)

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C. The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001

Figure 3-4 showcases the substantive effect of SDR on turnout decisions among the poor in the 2014 midterm election. To produce this estimate, predicted probabilities are derived by estimating how likely a person is to vote in states with and without SDR, holding all other variables constant at their mean values. The probabilities indicate SDR is associated with a positive impact, with individuals in SDR states 6% more likely to have voted than individuals in non-SDR states. The law, thus, positively structures turnout decisions among the poor in these elections.



Table 3-2 uses Catalist panel models to test a poor citizen's change in likelihood of voting from 2010 to 2014. Among the laws, SDR has a significantly positive effect on turnout in both models. Early voting also has a significantly positive effect on poor turnout across both models, with the poor more likely to choose to vote in 2014 than in 2010. These are unique findings. Burden et al. (2017, 2014) find that combinations of early voting and SDR lead to higher turnout, but they did not demonstrate that each of these laws increased the likelihood of turnout among poor Americans.

	Baseline Election	
		Administration
Vote 2010	1.999***	1.999***
	(0.064)	(0.064)
Early Voting Law	0.215^{*}	0.232^{*}
	(0.117)	(0.128)
Absentee/Mail	-0.053	-0.065
Voting Law	(0.109)	(0.113)
SDR Law	0.278^{**}	0.245^{*}
	(0.131)	(0.146)
State Election		0.004
Administration		(0.006)
(VAP-EPI)		
Pseudo R^2	0.237	0.237
Pseudo LL	-172,363.427	-172,356.248
BIC	344,957.614	344,956.076
Observations	369,517	369,517

Table 3-2: Change in Poor Person Likelihood of Voting from 2010 to 2014, varying State Electoral Systems (Catalist; Lagged Panel Models)

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C. The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001

Figures 3-5 and 3-6 graph the substantive impacts of early and SDR voting on changing an individual's likelihood of voting over time. Predicted probabilities are calculated on a subsample of non-voters in 2010 to estimate how likely they are to change into voters in 2014 if they reside in states with either of these laws, holding all other variables at their mean values. Both graphs suggest that the laws have a positive effect on this outcome. Figure 5 indicates that a poor individual in a SDR state was 3% more likely to convert from a non-voter in 2010 to a voter in 2014, relative to a poor individual in a non-SDR state. Similarly, Figure 6 illustrates that a poor person was also 3% more likely to convert from a non-voter to a voter in a state with early voting, compared to such a person in a state without the law. Across these midterm elections, both these laws make a substantive difference in changing a poor non-voter into a voter.



Note: Figures 3-5 and 3-6 predicted probabilities derived from first model of Table 3-2, with 95% confidence intervals.

Presidential Election

Tables 3 and 4 repeat the analyses shown above for the 2012 presidential election. Both these tables advance the idea that the poor particularly benefit from convenience voting laws during high stimulus presidential elections. Table 3-3 shows how poor voting is associated with a state's voting reform laws and election administration. First, no-excuse absentee or mail voting have a significantly positive effect on poor turnout, an effect that is robust to controlling for a state's election administration (columns one and two). Additionally, SDR voting has a significantly positive effect on poor voting, even after controlling for state election administration. Conversely, early voting has consistently negative effect on poor participation. These results are revealing. Most absentee/mail voting studies (e.g., Karp and Banducci 2001) conclude these laws mainly benefit high S.E.S. Table 3 demonstrates, though, that absentee/mail as well as SDR can positively shape participation among the poor.

	Baseline	Election		
		Administration		
Early Voting Law	-0.161*	-0.175*		
	(0.093)	(0.093)		
Absentee/Mail	0.278^{**}	0.281^{***}		
Voting Law	(0.085)	(0.084)		
SDR Law	0.327^{**}	0.358^{**}		
	(0.137)	(0.152)		
State Election		-0.006		
Administration		(0.008)		
(VAP-EPI)				
Pseudo R^2	0.076	0.077		
Pseudo LL	-223591.737	-223567.266		
BIC	447400.645	447364.479		
Observations	353,200	353,200		
Note: All control variables listed in methods section are				

Table 3-3: Poor Person Likelihood of Voting in2012 Presidential Election, varying State ElectoralSystems (Catalist)

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C. The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001

Figures 3-7 and 3-8 present predicted probabilities corresponding to the absentee and SDR law results from Table 3-3. The probabilities are estimated by evaluating how likely individuals are to vote in states with either of these laws, all other variable held at their mean values. The first of these figures indicates that poor citizens are 9% more likely to vote in SDR states than in non-SDR states. The second demonstrates that impoverished individuals are 7% more likely to vote if they reside in an absentee/mail voting state. Although prior research on convenience voting laws has found these two modes of voting to be responsible for higher turnout (Hanmer 2009; Fitzgerald 2005; Leighley and Nagler 2014), no research has found these laws to be distinctly advantageous for impoverished Americans. The findings here, tellingly, show that these two laws make a large difference in drawing the indigent to the polls



In Table 3-4, panel models test changes in the probability of voting from 2008 to 2012 associated with the election reform laws. These models provide a robust test of the effect of the laws on poor turnout. Both absentee and SDR voting have significant impact in increasing a poor person's propensity of voting across these two elections (columns one and two). These effects are larger in magnitude after controlling for a state's overall electoral system. In presidential elections, absentee/mail and SDR increases the propensity to vote among poor citizens, indicating that these are important laws for bringing those from less likely voting groups into the ballot casting electorate.

	Baseline	Electoral
		System
Vote 2008	1.643***	1.645***
	(0.050)	(0.050)
Early Voting Law	-0.102	-0.122
	(0.090)	(0.082)
Absentee/Mail	0.231***	0.236***
Voting Law	(0.065)	(0.059)
SDR Law	0.339***	0.384^{***}
	(0.083)	(0.102)
State Electoral		-0.008
System (VAP-EPI)		(0.007)
Pseudo R^2	0.168	0.168
Pseudo LL	-201,514.769	-201,467.584
BIC	403,259.484	403,177.888
Observations	353,200	353,200

Table 3-4: Change in Poor Person Likelihood of Voting from 2008 to 2012, varying State Electoral Systems (Catalist; Lagged Panel Models)

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C. The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001

The probability simulations show the laws make a meaningful difference in changing poor nonvoters into voters. Subsamples of non-voters in 2008 are evaluated to see how their probability of voting in 2014 changes if they live in states with either of these laws; all other variables are held at their mean average. As pictured in Figure 3-9, these individuals are 9% more likely to convert from non-voters in 2008 to voters in 2012 in SDR states. Figure 3-10 shows that they are 5% more likely to make this same conversion in no-excuse absentee or mail voting states. During presidential elections, these laws help make poor non-voters into voters.



Robustness Check (CCES Data)

As in Chapter 2, coarsened exact matching samples [CES] are used to identify the sample average treatment effects for all three election laws. The same matching strategy is employed as in Chapter 2. (Tables reporting these results are in Appendix D.) Tables D3-1 through D3-3 examine the sample treatment effects of early, absentee/mail, and SDR on poor turnout in midterm elections, while Tables D3-4 through D3-6 test the same laws in presidential elections. The CEM results, generally, replicate the findings present in the Catalist models. To summarize the CEM results, absentee/mail and SDR voting are significantly associated with voting among the poor. The magnitude of the SDR effects, however, are attenuated because of the smaller samples drawn from SDR states. As in the Catalist models, there is also no direct effect of early voting on turnout among the poor. The CEM models buttress the inference that convenience voting laws advantage the poor.

Conclusion

The purpose of this study was to evaluate the impact of the accessibility of a state's electoral system (set of convenience voting laws, and election administration) on turnout among the poor. Key election laws results are summarized in Table 3-5. Using a uniquely large subsample of poor citizens from Catalist with statistical models, the findings corroborate the causal linkages of the accessible voting framework tested in this study; specifically, the linkages between a state's set of reform laws and election administration, and turnout among the poor. Referring to the four hypotheses, reducing institutional barriers to the voting process enhances poor individuals' likelihood of participating in elections. This is particularly the case with no-excuse absentee/mail and SDR voting. Additionally, the positive effects of absentee/mail and SDR voting laws are particularly evident in presidential elections, when the mobilizing influences of campaigns and media are at their peaks. This is consistent with the research done by Burden et al. (2017, 2014). There is still evidence, though, that these laws improve turnout of the poor in midterm elections. Lastly, states with more accessible voting systems, specifically with absentee/mail or SDR voting, help convert inactive, non-participating poor citizens in one election to active, participating citizens in the next election. Accessible voting systems have the power, in a sense, to bring poor people to the polls.

		8	
	Early Voting	Absentee/Mail Voting	SDR Voting
2012 Presidential Election	✓ (-)	✓ (+)	✓ (+)
2014 Midterm Election	✓ (+)		✓ (+)

Table 3-5: Election Laws with Statistically Significant Effects on Turnout among Poor

These findings point at a need to re-evaluate prior accessible voting research (Berinsky 2005; Burden et al. 2014; Gronke et al. 2008a) holding that absentee/mail and early voting disadvantage lower S.E.S. relative to higher S.E.S. citizens. This prior research did not take account of a state's election administration and set of voting reform laws that structure the isolated effects of these laws. Such factors include the overall accessibility of state's election administration (Alvarez et al. 2013; Gerken 2009), a state's history of promoting or hindering turnout (Keyssar 2009; Hanmer 2009), and the competitiveness of a state's elections (Bowler and Donovan 2008). To parse out the independent effect of convenience voting laws, researchers must control for these antecedent factors related to an individual's choice to vote. By doing so, convenience voting laws are shown to have a beneficial effect on turnout among the impoverished.

The final implication is practical. Absentee/mail and SDR voting enhance the turnout prospects of poor citizens. Local and state election administrators, government elites, and voting activists desirous of bettering turnout among marginalized voting groups should consult this research in making policy decisions. The results have cross-group relevance. Schlozman et al. (2012, 138-139) note that racial and gender-based inequalities in turnout have their origins in socio-economic inequalities. As the outcomes of this study demonstrate, convenience voting laws can serve an important role in enhancing turnout among and bringing new poor voters into the electorate.

Chapter 4

Accessible Voting and Campaign Mobilization

In their often-cited work *Voice and Equality: Civic Voluntarism in American Politics*, Verba, Schlozman, and Brady (1995, 430) argue that people do not vote because "they can't; they don't want to; or because nobody asked." Chapters 2 and 3 illustrated how reduced legal barriers to voter registration lowered the number of citizens saying they could not or did not want to vote, even among economically disadvantaged voters. Were citizens in these states more motivated to vote leading to higher turnout? A notable gap in the literature on convenience voting is whether and how new voting and registration laws in the states structure candidate or campaign mobilization of voters. As noted in previous chapters, many scholars (Berinksy 2005; Burden et al. 2014; Donovan 2008; Karp and Banducci 2001, 2000; Neeley and Richardson 2001) emphasize how political interest, electoral competition, and mobilization are key factors conditioning the effects of these laws. Yet none of these studies directly measures campaign mobilization.

The mobilization literature generally assumes that parties and campaigns are strategic and will do everything they can to win elections (Aldrich 1993). They tend to mobilize individuals who are already likely to vote in an election (Finkel 1993; Holbrook and McClurg 2005; Kramer 1973; Lazarsfeld, Berelson, and Gaudet 1944) such as partisans over independents. Campaigns and parties view this as a safe and efficient way of using their electioneering resources. High socioeconomic status (SES) individuals are common recruiting targets because they tend to be consistent voters from one election to the next (Rosenstone and Hansen 2001). What makes them likely voters and campaign targets is an abundance of politically relevant resources (time, resources, and civic skills) that relate positively to participation. Individuals with more money can donate more to candidates, parties, and political action committees; individuals with more time have more latitude to volunteer for a campaign, or become better informed about an election; and individuals with more political interest are more likely to vote (Schlozman, Verba, and Brady 2013; Verba, Brady, and Schlozman 1995; also see Rosenstone and

Hansen 2001, 7). Rosenstone and Hansen (2003, 164-165, 287-290) evaluate how widespread these mobilization tendencies are across the United States. To test which demographic groups are more likely to be mobilized by campaigns, they employ data from the 1956-1988 American National Election Studies [ANES] using multivariate regression to control for other factors associated with turnout. Their findings confirm that higher SES citizens are more likely to be contacted by campaigns.

The election reform literature generally assumes there is limited reason to believe that campaigns use these laws to bring new voters into the electorate. Convenience voting literature (Berinsky 2005; Gronke et al. 2009; and others) find that these laws have a minimal effect on turnout, or advantage already-likely voting groups if they do have an effect. This perhaps explains the limited attention given to voter mobilization in convenience voting literature. However, with the proliferation of convenience voting laws over the past twenty years, the relationship between demographic groups and mobilization needs to be re-evaluated. Since the 1990s and even early 2000s, use use convenenice voting reforms in the U.S. has become very widespread, especially in swing states, such as Florida. More recent mobilization research demonstrates the efficacy of certain modes of mobilization, and leaves an opening for new research on election reform laws to identify their effects on mobilization and turnout among different demographic groups.

In a unique contribution to the convenience voting and mobilization literatures, Burden et al. (2014) examine how early voting, absentee voting, and SDR (SDR) impact voter mobilization. They find that states with combinations of these laws are related to higher turnout, while states with single laws (e.g., early voting by itself) depress turnout. The researchers posit that early voting and SDR in combination is associated with longer voter recruitment periods in states, motivating political actors (parties, candidate, etc.) to campaign more actively. However, Burden et al. (2014) do not directly measure campaign contact, and only theorize that campaigns are more active in targeting voters because of these laws. A causal story is missing from this part of the literature.

Previous studies of convenience voting have several other limitations, some that have been discussed before. They also do not consistently examine both presidential and midterm elections, even

though turnout and mobilization patterns vary by type of election. They rely primarily on data (Census's Current Population Survey (CPS)) that either does not account for political interest and partisanship factors, although partisanship has been found to be the most important predictor of party contacting (Hersh 2015). They also do not account for potentially disparate effects of voting reform laws on mobilization of poor versus non-poor citizens. While these scholars have made admirable contributions to the field, and have aptly noted that mobilization is a key factor behind accessible voting law use, none have empirically demonstrated this to be the case.

This study makes several contributions to the growing literature on election reform. First, it directly models the relationship between state convenience voting laws and campaign contact, using the 2010, 2012, and 2014 CCES asking if citizens were contacted face-to-face, by phone call, via electronic message, or through the mail by a political candidate or campaign.¹⁷ The CCES collects representative state and congressional district samples, and includes political interest and partisanship questions, permitting analysis of how the laws affect mobilization in all fifty states. Catalist data as used in the previous chapters do not include a question on campaign contacting. Building on the research design from Schlozman, Verba, and Brady (2013) a secondary analysis is conducting use subsample of those contacted and not-contacted by political campaigns to predict voter turnout. This strategy identifies how variation in campaign contact effects voter turnout associated with convenience voting laws. Third, it compares how the laws structure mobilization of an unlikely voting group (the poor) compared to a likely voting (the non-poor) group, assessing whether convenience voting laws equalize voter recruitment between these demographics using a dummy variable for the poor. Consistent with previous chapters, the statistical controls for a state's election administration and history of promoting or encouraging turnout to measure state accessible voting structures and their effect on mobilization and turnout. Finally, variation in mobilization are examined in midterm and presidential elections, accounting for increased campaign mobilization in president elections (Hershey 2015). The accessible voting theoretical framework accounting for a state's election reform laws and administration, is coupled with a large survey data and

causal inference methods (statistical matching) to examine if the election reform laws increase voter mobilization, and benefit poor people.

Direct Mobilization

Recent literature on campaign contact and turnout demonstrates that the impact of mobilization depends on the type of recruitment. Impersonal campaign mobilization techniques, such as robocalls, have been found to have no effect on turnout (Green and Gerber 2008); likewise, television and radio advertisements, as well as blanket modes of campaigning across large geographic areas, have likewise minimal effects (Parry et al. 2008). Conversely, direct campaign contact – in the form of in-person, phone call, mail, or electronic message voter recruitment – has been theorized to increase turnout through information and social pressure mechanisms (Green and Gerber 2008; Mossberger, Tolbert, and McNeal 2008, Chapter 4; Parry et al. 2008; Sinclair 2012). For example, reminding citizens that their neighbors voted in previous elections has been to increase turnout. Individuals who are contacted directly by campaigns become more informed when these agents+ tell them about policies, candidates, and elections. Additionally, candidate and party campaigns increasingly inform potential voters of state registration and election, prompting them to mail in absentee ballots for example, This helps citizens unfamiliar with the process of registering and voting to more easily navigate a state's election administration and cast a ballot.

Beyond direct mobilization, individuals can be psychologically coerced into voting by targeted campaign messages emphasizing their vote history is state record, implying that a non-vote will be a blemish against their turnout histories. Campaigns can also send mail with information on the turnout of a potential voter's neighbors, suggesting they would be anomalies in their communities should they choose not to participate. Targeted messages also communicate that casting a ballot is a civic duty, indicating that non-civically engaged individuals are not ideal citizens (Green and Gerber 2008; Hershey 2015; Sinclair 2012). But does research support the relationship between these modes and mechanisms of direct

mobilization and turnout? These social pressure mechanisms have been shown to be effective in increasing voter turnout.

A long history of research demonstrates the efficacy of party contact. Gosnell (1927) used field experiments to demonstrate that campaign letters (the treatment effect) increased turnout by one percent in the 1924 presidential election, and nine percent in a 1925 municipal election, among Chicagoans.¹⁸ Eldersveld (1956), also employing a campaign experiment, showed that personalized campaign messages increased turnout in Ann Arbor, MI. Cutright and Ross (1958), examining campaign effects in a medium-sized Midwestern city, and testing their hypotheses using multivariate regression, found that Democrat Party turnout was increased by almost 2 percent when party activists contacted 21 or more potential voters per day, while this effect was nearly 7 percent for Republican turnout. Employing 1952-1996 ANES data coupled with regression analysis, (Weilhouwer 2000) finds a statistically significant and positive relationship between campaigns and parties who contact individuals via phone or in-person and voter turnout. Niven (2000, 2004) uses panel data to show face-to-face party recruitment is significantly related to turnout in Florida municipal and state elections. Calderia et al. (1990) also find a positive relationship between party contact and mobilization in Ohio state elections.

Several key pieces of research corroborate these earlier findings Green and Gerber (2008) and Sinclair (2012) use mail or door-to-door canvassing experiments, along with local, state, and nationallevel datasets coupled with multivariate regression, to show that individuals are pressured to vote at higher rates when the recruiter is also a local resident, or if the campaign message reminds citizens of their or their neighbors' voting habits (see also Green, Gerber, and Larimer 2008). Mossberger et al. (2008) use ANES data and multivariate regression to showcase the e-mobilization effects of the Internet, namely a positive turnout impact associated with emails sent from campaigns to citizens. Campaigns provide relevant election information via such messages, spurring greater participation.

These modes of direct mobilization are not insignificant tools in the modern campaign's toolbox (Issenberg 2012). Much the opposite. With discoveries (e.g., Gosnell 1927) and re-discoveries (e.g., Green and Gerber 2008; Sinclair 2012) regarding the efficacy of direct voter recruitment, campaigns and parties

recently have invested more time and resources into targeted voter mobilization (Issenberg 2012; Darr and Levendusky 2009; Masket 2009; also see 2012 Obama Campaign Legacy Report). The 2008 and 2012 Obama campaign, compiled a dataset consisting of the whole country's voting age population to construct voter targeting plans [this later became the Catalist data used in previous chapter]. This dataset includes information on individual voter histories, demographic characteristics (either based on public record, or imputed), and other factors associated with turnout (e.g., imputed likelihood of subscribing to a news publication as a proxy for political interest) (Hersh 2015). The Democratic Party, tailoring their direct mobilization strategies using this wealth of information, could efficiently target Obama supporters and individuals who might be persuaded to support him. Today, both the Democratic and Republican Parties have national voter databases they use to fuel these direct campaigning efforts (Hersh 2015, 67-68).

Direct Mobilization and Widening Participation

But do these direct mobilization techniques help recruit lower likelihood voting groups, such as the poor, into the active electorate? Some scholars say yes. Parry et al. (2008) examine how in-person, mail, phone, and television and radio advertisement mobilization relates to turnout in the 2002 Senate elections in Missouri and Arkansas. Using voter history data (panel), they split their sample of 1,001 respondents into consistent, intermittent, and seldom voter groups. Consistent voters cast ballots in all elections, intermittent every two years, and seldom rarely if at all. The first group is mostly populated by highly likely voting groups (e.g., high SES), the second by those of medium likelihood (e.g., medium SES), and the third by those of the lowest probability (e.g., low SES). Interestingly, they find that direct campaign contact (in-person, mail, or phone) significantly increases turnout among the seldom voter group, while this variable is only marginally significant among intermittent voters, and has no effect on consistent voters. The researchers conclude that consistent and intermittent voters would likely cast ballots, even if not contact by campaigns. However, seldom voters are those most in need of campaign cues to vote, which is why the effect is most pronounced among them. Similar findings are also present in

Niven's (2004) work. Mobilization makes the greater difference in converting habitual non-voters into voters, all else held constant.

Election Reform Laws and Party Campaign Strategy

If parties are interested in contacting citizens to vote, do they also push for the adoption data collection laws that would make contacting easier, such as computerized voter rolls? This is, in fact, what Hersh (2015), uncovers in his research. When designing voter recruitment plans, political parties construct "perceived voter models" or likely voter models based on the data available to them. Campaigns need more demographic information about individuals, as they cannot perfectly target their supporters or potentially persuadable voters. To do this, political parties lobby state governments to create data collection policies to help identify possible supporters.¹⁹ Examples of such policies include state voter registration forms providing information on an individual's race and party affiliation, as well as state voting records that help parties identify regular, or consistent, voters.²⁰ Additionally, analytic firms like Catalist combine state records with other information available on individuals (e.g., home ownership, media consumption, and recreational hobbies) highly correlated with voter preferences to more precisely identify supporters among the electorate. Using Catalist and CCES datasets with millions of observations, Hersh (2015) finds that state parties and campaigns that have more complete information are better able to target allies in the electorate and mobilize them to vote. The key point here is that parties and campaigns use laws to promote their election efforts, and to aid in mobilizing and drawing people to the polls.

Convenience voting laws are no different. Early voting, no-excuse absentee and mail voting, and SDR are election mechanisms that parties use to mobilize voters. Campaigns have re-drawn their mobilization strategies to take advantage of them. According to Hershey (2015, 162),

The traditional plan of building a campaign toward a big finish on Election Day doesn't work very well if large numbers of voters cast their ballots in October. To take advantage of early and no-excuse absentee voting, party organizations must be prepared to explain these options to their likely supporters and to mobilize early voters. The traditional GOTV [Get Out the Vote] drive, which used to take place during the weekend before Election Day, has now become at least six weeks long. On the other hand, candidates then have the benefit of access to 'running lists' telling

who has requested absentee ballots and who has submitted them or voted early--though not, of course, how each individual voted.

To maximize their electoral success, political parties utilize early voting and no-excuse absentee or mail voting to mobilize supporters or persuadable voters over a longer period time. SDR likely keeps parties engaged in mobilization efforts until Election Day or the end of an early voting period.²¹ Longer periods of mobilization likely equate to higher levels of turnout attributable to campaign activities. Additionally, research (Ashok et al. 2016) has shown that highly likely voting groups (e.g., more partisan, older, and higher SES) are more likely to cast ballots near the beginning of an early voting period, while less likely voting groups (e.g., less partisan, younger, and lower SES) are more likely to wait until the end of this period to do so. Therefore, in states with extensive mobilization periods, parties are likely to mobilize both likely and unlikely voting groups. These election laws structure mobilization and there is a reasonable expectation that the poor are an attractive mobilization target.

The adoption of convenience voting laws in the American states over the past three decades is an attempt to widen the American electorate to include a broader segment of the citizenry, namely less likely voting groups such as the poor. State electoral systems have always been important determinants of which demographic groups are targets of party mobilization efforts, with political parties doing the heavy lifting. Hershey (2015) and Aldrich (2009) emphasize that campaigns and parties are endogenous to their political environments. This means that parties shape, and are shaped by, election laws. Schattschneider (1942), for example, writes the "whole history of suffrage [expansion. . . is] intimately associated with parties." Parties promote suffrage expansions when doing so advantages them, and disadvantages their opponents. In the late-1700s, the Jeffersonian-Republicans removed the property requirements associated with voting to appeal to less affluent citizens, giving them a new constituency and a strategic asset relative to the Federalist Party. A century later, Republicans hoped to win the African American vote with the passage of the 15th Amendment in 1865. The Democratic Party, during the Lyndon Johnson administration, tried to do the same with the 1965 Voting Rights Act [VRA], facilitating the demise of literacy tests and poll taxes that barred racial minorities and impoverished citizens from access to the

ballot (Springer 2014). The National Voter Registration Act in 1993, passed during the Bill Clinton administration, and blocked by his predecessor, George H.W. Bush, can be considered a law adopted to advantage population groups tending to support the Democratic Party (the same expected to be advantaged by the VRA) (Keyssar 2009). With the proliferation of convenience voting laws over the past twenty years, one can consider the expansion of convenience voting laws to be an attempt by political parties to widen their mobilization strategies, and to bring more citizens to the polls. Since the poor undervote, and parties can gain a strategic advantage by winning them to their side, a natural expectation is that these reform laws are used to mobilize this demographic.

Research Hypotheses

This study considers how the accessibility of a state's electoral system structures the direct mobilization targeting strategies employed by candidates and campaigns, and how this subsequently impacts poor versus non-poor voter recruitment and turnout. Regarding the accessing voting model outlined in Chapter 1, the evaluated causal linkages are those between a state's electoral system (election administration, and set of convenience voting laws), and mobilization and turnout at the individual-level. Several testable hypotheses are derived from the accessible voting framework when applied to the subject of mobilization:

H1: Individual residing in states with convenience voting laws (early voting, no-excuse absentee or mail voting, and SDR) and improved election administration are more likely to be contacted by parties and candidate campaigns.

H2: Individuals contacted by campaigns are more likely to vote, compared to individuals who are not contacted.

H3: Poor individuals living in states with early voting, no-excuse absentee voting, or SDR voting and improved election administration are more likely to be contacted.

H4: Individual residing in states with convenience voting laws (early voting, no-excuse absentee or mail voting, and SDR) are more likely to be contacted by parties and candidate campaigns in presidential elections, rather than midterm elections. The effects will be more pronounced in presidential elections as the party seeks to win the White House.

H5: Poor individual residing in states with convenience voting laws (early voting, no-excuse absentee or mail voting, and SDR) and improved election administration are more likely to be contacted by parties and candidate campaigns in presidential elections, rather than midterm elections.

Data and Methods

This study employs logistic regression models with state-level clustered errors. Campaign and turnout models are divided into two stages, similar to Schlozman, Verba, and Brady's (2013) design to examine mobilization and voting. The first stage consists of the full sample, and examines which factors influence an individual's likelihood of being contacted by a campaign. The second stage subsamples respondents into contacted (or not) categories, and utilizes the same factors from the previous model to determine if campaign mobilization, convenience voting laws, and a state's election administration increase the propensity of individuals to vote in elections.

This research employ pooled time-series data. Individuals are thus the unit of analysis. Although the results hold when estimating using multilevel modeling, more simplified logistic regression models are presented here. The total survey sample includes 165,602 respondents drawn from the 2010, 2012, and 2014 CCES [The 2008 CCES is excluded because it does not include a variable measuring campaign contact]. Two separate datasets are created; one for the midterm election years with a sample of 111,176, and one for the presidential election with a sample of 54,426. Subsamples of poor respondents are also put together for midterm (n=22,781) and presidential (n=12,262) years. Respondents in the CCES surveys were asked, "Did a candidate or political campaign organization contact you during the [insert election year] election?" Based on responses, 55.48% of individuals were contacted in the 2012 presidential

election, and 50.94% in the 2010 and 2014 midterm elections. The first dependent variable is whether a respondent was contacted by a campaign in these elections. Individuals reporting being contacted are coded one, zero if not. The second dependent variable, whether a respondent voted, is also dichotomous coded one for voting, and zero for non-voting, as discussed and used in Chapters 2 and 3.

The same modeling strategy used in chapters 2 and 3 is used here, with a similar set of explanatory variables. The CCES survey data is merged with state aggregate variables measuring the presence of state convenience voting laws and election administration performance to proxy for the accessibility of state electoral systems. To measure electoral competition across the states and different years, this study includes a variable representing the margin of victory in the 2012 presidential election, and the closest senatorial, gubernatorial, or average of House races at the state-level in 2010 and 2014.

As used in Chapter 3, the primary independent variable of interest is whether a respondent is at or below the federal poverty threshold in 2010, 2012, or 2014. The same set of control variables from previous chapters are used in these models. These include income, male, age, education, African American, Hispanic, Asian, other race, non-Hispanic white (reference group), strong partisan, political interest, length of residence, employment, and home ownership. Finally, a year dummy variable to control for potential temporal heterogeneity. (See Appendix B for coding and descriptions of variables.)

Results and Analysis

An additive modeling technique is employed below to see how the effects of electoral reform laws change (or do not change) when incorporating election administration covariates into the statistical analyses, as well as interaction models. Tables 1 and 2 examine the impact of campaign contact in the 2010 and 2014 elections. In Table 1, the first model provides a baseline estimate of each law's effect on campaign contact, and the second model does this while incorporating the election administration variable (VAP-EPI). The next three models examine the influence of the voting reform law and election administration variables on a poor person's likelihood of being contacted; the first model includes poor and law interaction variables, the next poor and an election administration interaction variable, and the

last all these interaction variables. Since these Table 1 models on poor campaign contact use the full sample, Table 2 uses a poor subsample to provide clarification on the effects of the voting reform law and election administration variables on political campaign targeting of the poor. Tables 3 and 4 follow the same analytic framework to examine campaign contact during the 2012 presidential election.

After having examined the impacts of these variables on mobilization, Table 5 (midterm elections) and Table 6 (presidential) elections use subsamples of non-contacted and contacted respondents to identify the turnout implications associated with mobilization. Table 5 has four models. The first model tests how likely individuals are to vote if they have been contacted, but does not include the voting reform law, election administration, or vote margins (i.e., political competition) variables. This helps show who is likely or unlikely to vote without mobilization. The second model includes these accessible voting system variables to see if they have a direct effect on turnout in the absence of mobilization. The third and fourth models repeated these tests for individuals who were contacted by a campaign. This helps identify if the election reform law and administration variables have a direct effect on turnout, even after mobilization. Table 6 repeats these same analyses on respondents in the 2012 presidential election.

Key covariates are presented in the tables; the full tables are available in Appendix C. Statistical matching is then used to robustness check the campaign contact findings present in Appendix D. Predicted probabilities are created for covariates to evaluate their substantive significance.

Do Accessible Voting Systems Increase Campaign Contact?

Table 4-1 reports an individual's likelihood of being contacted by a campaign in the 2010 and 2014 midterm elections. The baseline and electoral administration models support the first hypothesis, as reported in columns 1 and 2. Individuals residing in states with either SDR voting, or no-excuse absentee or mail voting, are significantly more likely to be contacted. No-excuse absentee/mail voting only becomes significant after controlling for a state's VAP-EPI level, indicating that the performance of a state's election administration (VAP-EPI) makes a difference in structuring the impact of this law. If scholars failed to control for election administration, they would not be able to determine that

absentee/mail voting has a beneficial effect on turnout. Most research in this literature does not control for election administration. Neither early voting nor a state's VAP-EPI value, however, has a significant independent effect on campaign contact. These findings are important, as they show that SDR and absentee/mail voting have beneficial effects on voter mobilization in lower turnout congressional elections.

Figures 4-1 and 4-2 report the substantive effects of absentee/mail voting (Table 1, second column) and SDR (Table 2, first column) on campaign contact in the 2010 and 2014 midterm elections. They compare an individual's probability of being contacted by a campaign in states without and with these two election reform laws, all other variables held at mean values. In absentee/mail voting states, an individual has a 53% probability of being contacted, compared to a 48% for an individual in a state without this law, a 5% difference attributed to the law alone. Similarly, in SDR states, an individual has a 54% likelihood of being contacted, relative to 50% likelihood in non-SDR states, a 4% difference. Individuals are more likely to be contacted when their state has either of these laws.

	Baseline	Election	Poor \times	Poor \times	Full
		Administration	Voting Laws	Election	Interaction
			-	Administration	
Household Income	0.066***	0.066^{***}			
	(0.005)	(0.005)			
Poor (<=Federal			-0.319***	-0.157	-0.282
Poverty Rate)			(0.051)	(0.335)	(0.371)
Early Voting Law	-0.151	-0.149	-0.141	-0.153	-0.140
	(0.112)	(0.113)	(0.114)	(0.112)	(0.114)
Poor*Early Voting			-0.049		-0.050
- <u>-</u>			(0.092)		(0.098)
Absentee/Mail	0.176	0.178^{*}	0.152	0.182^{*}	0.152
Voting Law	(0.109)	(0.107)	(0.108)	(0.106)	(0.108)
Poor*Absentee/			0.121		0.121
Mail Voting			(0.093)		(0.093)
SDR Law	0.135**	0.122^{*}	0.151^{*}	0.122^{*}	0.149^{*}
	(0.064)	(0.073)	(0.081)	(0.074)	(0.084)
Poor*SDR			-0.112		-0.107
			(0.070)		(0.078)
State Election		0.002	0.001	0.001	0.001
Administration		(0.005)	(0.005)	(0.005)	(0.005)
(VAP-EPI)					

 Table 4-1: Individual Likelihood of Being Contacted by Campaign in 2010 and 2014 Midterm

 Elections, varying State Electoral Systems (CCES)

Table 4-1: Continue	d				
Poor*Election				-0.003	-0.001
Administration				(0.006)	(0.006)
Pseudo R^2	0.173	0.173	0.172	0.172	0.172
Pseudo LL	-63802.678	-63801.847	-63905.456	-63910.416	-63905.427
BIC	127837.734	127847.690	128089.764	128076.447	128101.325
Observations	111,176	111,176	111,176	111,176	111,176

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C. The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. Fixed effect for 2014 include in models. p < 0.10, ** p < 0.05, *** p < 0.001



Figures 4-1 and 4-2: Probability of Individual Being Contacted in 2010 and 2014 Elections in States without and with

The latter three models of Table 4-1 replace the variable for income with a variable for poor people to model interaction effects of the election reform laws. Although the poor are statistically less likely to be contacted than the non-poor, as expected, living in a state with SDR increases the probability of campaign contact for non-poor relative to the poor (see column 3). Predicted probabilities were derived from this estimate to see the substantive different in poor versus non-poor citizens' probability of being contact, with all other variables held constant at their central tendencies. As presented in Figure 4-3, the non-poor have a 52% probability of being contact, and the poor at 45% probability, a difference of 5%.

Note: Predicted probabilities for SDR from first model of Table 4-1, and those for absentee/mail voting from second model of same table.
When adding not only interactions for the poor with the election reform laws, but also a state's electoral system features (laws and VAP-EPI), residing in states with SDR continues to increase campaign contact for everyone but the very poor, as shown by the positive covariate for poor.



A subsample of poor citizens is reported in Table 4-2 to better understand how election reform laws and administration relate to their likelihood of being contacted by a campaign. No-excuse absentee/mail voting makes campaigns more likely to recruit poor voters during midterm elections. No other study of election reform laws has uncovered this finding. None of the other laws or state election administration depresses the likelihood that poor individuals will be contacted. For poor citizens, being in an absentee/mail voting states makes one more likely to be viewed as a voting target by campaigns and parties.

(CCES)				
	Poor			
	Subsample			
Early Voting Law	-0.177			
	(0.136)			
Absentee/Mail	0.245^{*}			
Voting Law	(0.131)			
SDR Law	0.049			
	(0.079)			
State Election	-0.001			
Administration	(0.007)			
(VAP-EPI)				
Pseudo R^2	0.154			
Pseudo LL	-15924.974			
BIC	32040.589			
Observations	22,781			
Note: All control variabl	es listed in methods			
section are incorporated	into these models;			
to conserve on space, onl	y the key covariates			
are reported here, but the	full tables are listed			
in Appendix C. The estimates are logistic				
regression coefficients. Standard errors are				
clustered by state in parentheses. Fixed effect				
for 2014 include in models.				
p < 0.10, p < 0.05, m	p < 0.001			

Table 4-2: Poor Person Likelihood of being Contacted in 2010 and 2014 Midterm Elections (CCES)

Table 4-3 examines the effects of voting reform laws and election administration on mobilization in the 2012 presidential election. Both absentee/mail and SDR have significantly positive effects on campaign contact (see model 1), whereas early voting has a significantly negative effect. Thus, two of the three major election reform laws not only boost voter mobilization in midterm elections, but they do so in higher turnout presidential elections. This is a new finding in the literature. Mobilization actors are more likely to use the first two laws to reach out to more voters. While Burden et al. (2014) hypothesizes that SDR in combination with early voting may increase mobilization, that is not the finding here. But this finding is consistent with Burden et al. (2014), who posit that early voting – by itself –weakens campaign resolve to recruit voters. While election administration does not appear to directly affect campaign contact, the election reform laws are found to have a beneficial effect.

	Baseline	Election	Poor x	Poor x	Full
		Administration	Voting Laws	Election	Interaction
			C	Administration	
Household Income	0.067^{***}	0.068^{***}			
	(0.007)	(0.007)			
Poor (<=Federal	. ,	. ,	-0.374***	-0.430	-0.704**
Poverty Rate)			(0.076)	(0.460)	(0.356)
Early Voting Law	-0.253*	-0.220^{*}	-0.319**	-0.225*	-0.322***
	(0.133)	(0.117)	(0.129)	(0.119)	(0.132)
Poor*Early Voting			0.358***		0.370***
			(0.088)		(0.091)
Absentee/Mail	0.252^{**}	0.241**	0.332^{**}	0.247^{**}	0.333**
Voting Law	(0.128)	(0.117)	(0.126)	(0.118)	(0.127)
Poor*Absentee/			-0.324***		-0.330***
Mail Voting			(0.067)		(0.071)
SDR Law	0.212^{**}	0.107	0.090	0.104	0.101
	(0.095)	(0.104)	(0.108)	(0.105)	(0.110)
Poor*SDR			0.056		0.015
			(0.094)		(0.104)
State Election		0.017	0.016	0.016	0.015
Administration		(0.010)	(0.011)	(0.012)	(0.011)
(VAP-EPI)					
Poor*Election				0.002	0.006
Administration				(0.008)	(0.006)
Pseudo R^2	0.161	0.162	0.161	0.161	0.161
Pseudo LL	-31359.066	-31326.787	-31375.235	-31390.311	-31374.406
BIC	62925.319	62871.666	63001.275	63009.619	63010.523
Observations	54,426	54,426	54,426	54,426	54,426

Table 4-3: Individual Likelihood of Being Contact by Campaign in 2012 Presidential Election, varying State Electoral Systems (CCES)

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C. The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. Fixed effect for 2014 include in models. * p < 0.10, ** p < 0.05, *** p < 0.001

Figures 4-4 displays an individual's probabilities of being contacted in states with and without absentee/mail voting (first column), while Figure 4-5 does the same for SDR (first column), with other variables at mean values. In absentee/mail voting states, individuals had a 59% probability of being contacted, compared to 53% in states without an absentee/mail voting law. SDR state residents had 61% likelihood of being contacted, relative to 56% for individuals in non-SDR states. Both these laws are instrumental in increasing mobilization actors' likelihood of recruiting voters.



The latter three models in Table 4-3 introduce interaction terms between the laws and election administration variables with the poor people variable. Although early voting has a negative direct effect (third column), the interaction effect indicates that the poor are significantly more likely than the non-poor to be contacted because of this law. Having a longer time available for individuals to vote, as is the case in early voting states, appears to make campaigns more likely to reach out to individuals from this disadvantaged voting group. But the poor are not always advantaged by a state's electoral system. The poor are significantly less likely to be contacted than the non-poor in presidential elections, as reported in the third model. According to Figure 4-6, the non-poor have a 58% likelihood of being recruited to vote, while the poor have a 51% likelihood with other variables held at mean values, a gap of 7%. Additionally, while absentee/mail continues to have a significantly positive effect on contact, it has a negative interaction effect on the poor relative to the non-poor. Lastly, SDR does not have a significant direct effect on mobilization, and neither does a state's VAP-EPI. The fact that early voting leads more campaigns to target potential poor voters, however, is an important and unprecedented finding in the election reform law literature.



Figures 4-7 through 4-10 depict the predicted probabilities for the interactive effects of early voting (Figures 4-7 and 4-8) and absentee/mail voting (Figures 4-9 and 4-10) on campaign contact directed at the poor versus non-poor. These probabilities are produced by comparing poor and non-poor citizens' probabilities of being recruited by campaigns, all other variables held at mean values.



In states without early voting (Figure 4-7), the non-poor have a 63% probability of being recruited by a campaign, while this value is 50% for the poor, a difference of 13%. In contrast, when a state has early voting (Figure 4-8) the non-poor have a 56% probability of being contacted, while the poor have a probability of 51%, a gap of only 5%. Relative to the non-poor, the poor become more likely to be mobilized by campaigns in early voting states during presidential elections.

In contrast, no-excuse absentee or mail voting leads to campaign contact strategies that are more beneficial to the non-poor than the poor. Figure 4-9 shows that in states without absentee/mail voting the non-poor have a 54% likelihood of being contacted, while the poor have a 51% probability of being contacted. By comparison, Figure 4-10 shows that in absentee/mail voting states the non-poor have a 62% probability of being mobilized by campaigns, while this probability is only 51% for the poor. Whereas the poor are only 3% less likely to be contacted in states without absentee/mail voting, they are 11% less likely to be contacted in states with these laws. This indicates that absentee/mail voting law tend to depress the probability of poor citizens becoming political campaign targets.



Figures 4-9 and 4-10: Probability of Non-Poor and Poor Individuals

A subsample of poor voters is tested in Table 4-4 to see how voting reform laws and election administration structured campaign mobilization of this demographic group during the 2012 presidential election. States with a higher performing election administration are significantly related to higher mobilization among the poorest Americans. Predicted probabilities are calculated to understand the substantive impact of this variable on this outcome, varying VAP-EPI variable between the most (e.g., Minnesota and North Dakota) and least accessible election administration states (e.g, Mississippi). As illustrated in Figure 4-11, poor individuals in states with a more highly performing election administration (e.g., Minnesota and North Dakota) have a 49% probability of being targeted by campaigns, whereas those in states with the lowest EPI values (e.g., Mississippi) have a 33% probability. This means that poor individuals in states with the most accessible election administration are 16% more likely to be asked by campaigns to vote. If election reform law researchers did not control for a state's election administration, they would have disregarded this important factor. A more accessible election administration leads parties to reach out and ask more poor citizens to become involved in politics.

Likelihood of being Contacted in 2012 Presidential Election (CCES)				
	Poor			
	Subsample			
Early Voting Law	0.052			
	(0.101)			
Absentee/Mail	-0.012			
Voting Law	(0.101)			
SDR Law	0.116			
	(0.123)			
State Election	0.020^{**}			
Administration	(0.010)			
(VAP-EPI)				
Pseudo R^2	0.135			
Pseudo LL	-8065.206			
BIC	16299.869			
Observations	12262			
Note: All control variables listed in method				
section are incorporated into these models;				

Table 4-4: Poor Person

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C. The estimates are logistic

Table 4-4: Continued

regression coefficients. Standard errors are clustered by state in parentheses. Fixed effect for 2014 include in models. * p < 0.10, *** p < 0.05, **** p < 0.001



Turnout

Table 4-5 and 4-6 evaluate hypothesis two, the proposition that contacted individuals are more likely to vote relative to those who were not contacted. Table 4-5 examines the 2010 and 2014 midterm elections, while Table 4-6 examines the 2012 presidential election. In Table 4-5, the first two models present the turnout propensities of those who were not contacted, while the latter two do so for those who were contacted. Each pair of models includes a baseline column including only individual-level covariates, followed by an electoral system column that includes state-level covariates (convenience laws, election administration, and vote margin). Baseline columns show if any individual-level covariate is associated with voting with or without mobilization, while the electoral system columns see if the electoral system variables (election laws, and VAP-EPI) have any direct effects on turnout after mobilization.

	Subsample No	Subsample No	Subsample	Subsample
	Party Contact	Party Contact	Party Contact	Party Contact
Household Income	-0.006	-0.008	0.030**	0.030***
	(0.007)	(0.007)	(0.010)	(0.009)
Early Voting Law		0.014		0.072
<i>, </i>		(0.113)		(0.125)
Absentee/Mail		0.141		0.142
Voting Law		(0.104)		(0.099)
SDR Law		0.047		0.087
		(0.087)		(0.082)
State Election		-0.005		-0.003
Administration		(0.006)		(0.006)
(VAP-EPI)		()		()
Political		0.007^{**}		0.011^{**}
Competition		(0.003)		(0.004)
Missing Income	-0.200****	-0.208***	0.021	0.014
8	(0.059)	(0.056)	(0.082)	(0.080)
Male	0.071**	0.067^{**}	0.176***	0.177***
	(0.031)	(0.031)	(0.028)	(0.028)
Age	0.022^{***}	0.022^{***}	0.022^{***}	0.022^{***}
0	(0.001)	(0.001)	(0.001)	(0.001)
Education	0.165***	0.164***	0.110^{**}	0.110***
	(0.013)	(0.012)	(0.014)	(0.014)
Black	-0.477***	-0.485***	-0.435***	-0.438***
	(0.072)	(0.070)	(0.063)	(0.058)
Hispanic	-0.482***	-0.512***	-0.287***	-0.318***
1	(0.058)	(0.067)	(0.089)	(0.082)
Asian	-0.826***	-0.849***	-0.417***	-0.440***
	(0.110)	(0.102)	(0.093)	(0.103)
Other Race	-0.102	-0.112	-0.212***	-0.222****
	(0.091)	(0.097)	(0.058)	(0.056)
Strong Partisan	0.356***	0.355***	0.306***	0.301***
8	(0.036)	(0.036)	(0.029)	(0.029)
Political Interest	0.450^{***}	0.451***	0.518***	0.518***
	(0.015)	(0.015)	(0.021)	(0.021)
Length of	0.120^{***}	0.121***	0.159^{***}	0.164***
Residence	(0.017)	(0.017)	(0.016)	(0.016)
Employed	0.207***	0.209***	0.062**	0.065**
	(0.050)	(0.049)	(0.030)	(0.030)
Home Ownership	0.103*	0.109**	0.066	0.074^{**}
*	(0.054)	(0.050)	(0.042)	(0.037)
Constant	-4.125***	-4.599****	-3.061***	-4.023***
	(0.115)	(0.356)	(0.111)	(0.390)
Pseudo R^2	0.141	0.143	0.106	0.110
Pseudo LL	-28480.901	-28416.905	-31430.495	-31293.162
BIC	57135.305	57061.532	63037.012	62817.353
Observations	51220	51220	59956	59956

 Table 4-5: Probability of Voting for Respondents who were and were not Contacted

 by Campaign in 2010 and 2014 Elections, varying State Electoral Systems (CCES)

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C.

Table 4-5: Continued

The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001

In midterm elections, none of the voting reform law or election administration variables have a direct effect on turnout. During the elections, this shows that election reform laws may work through mobilization, rather than directly on turnout. This is a new finding in the voting reform law literature. Additionally, citizens of higher income were significantly more likely to vote if they were contacted, but not if they were not contacted. The null effects associated with the income variable in the first two models indicates that both affluent and less affluent citizens are equally likely to be non-voters if a candidate, campaign, or party does not reach out to them. For most of these other individual-level covariates, having been contacted or not contacted by a campaign does not alter the statistical likelihood of an individual voting. Males (relative to females), older individuals, more educated citizens, non-Hispanic Whites (relative to racial minorities), strong partisans, those with higher political interest, those who have resided at a home longer, and those who own a home are significantly more likely to vote in a midterm election, regardless if they were targeted by campaigns or not. For citizens with no reported income, however, campaign contact enhances their likelihood of voting, compared to those with reported income. Finally, competitive elections lead to higher turnout in midterm elections, as expected.

Table 4-6 examines how likely individuals are to vote, based on if they were or were not contacted by a campaign during the 2012 election season. The same analytical strategy is employed here as in Table 4-5.

	Subsample No	Subsample No	Subsample	Subsample
	Party Contact	Party Contact	Party Contact	Party Contact
Household Income	0.001	0.000	0.006	0.009
	(0.010)	(0.009)	(0.008)	(0.008)
Early Voting Law		-0.008		0.317^{***}
		(0.098)		(0.069)
Absentee/Mail		-0.039		-0.157**
Voting Law		(0.090)		(0.068)
SDR Law		-0.203**		-0.120
		(0.097)		(0.087)
State Election		-0.005		0.015^{**}
Administration		(0.007)		(0.005)
(VAP-EPI)				
Political		-0.001		0.001
Competition	**	(0.003)	***	(0.002)
Missing Income	-0.256**	-0.262**	-0.280	-0.268**
	(0.105)	(0.104)	(0.085)	(0.083)
Male	-0.156	-0.156	-0.052	-0.052
	(0.045)	(0.045)	(0.043)	(0.043)
Age	0.013	0.013	0.012	0.012
	(0.002)	(0.002)	(0.002)	(0.002)
Education	0.159	0.160	0.187	0.188
	(0.018)	(0.018)	(0.021)	(0.021)
Black	-0.951	-0.968	-0.035	-0.011
TT ·	(0.077)	(0.078)	(0.094)	(0.099)
Hispanic	-0.823	-0.857	-0.178	-0.180
	(0.066)	(0.063)	(0.108)	(0.110)
Asian	-0.444	-0.467	-0.529	-0.488
Other Dees	(0.144)	(0.143)	(0.175)	(0.1/8)
Other Race	-0.414	-0.429	-0.142	-0.145
Stuan a Dautiaan	(0.179)	(0.1/7)	(0.102)	(0.105)
Strong Partisan	(0.277)	(0.274)	(0.403)	(0.403)
Dolitical Interact	(0.046) 0.174***	(0.047) 0.174***	(0.037)	(0.037) 0.205***
r onnicar interest	(0.027)	(0.174)	(0.230)	(0.293)
Length of	0.027)	(0.027) 0.086***	(0.020)	0.050**
Residence	(0.000)	(0.030)	(0.043)	(0.030)
Employed	0.082	0.086	-0.061	-0.070
Linployed	(0.052)	(0.056)	(0.061)	(0.062)
Home Ownership	0.058	0.062	0.178***	0.165**
Home Ownership	(0.050)	(0.052)	(0.052)	(0.054)
Constant	-1 550***	-1 158**	-0 589***	-1 686***
Constant	(0.130)	(0.398)	(0.118)	(0.267)
Pseudo R^2	0.070	0.072	0.053	0.055
Pseudo L L	-15435 099	-15417 070	-13428 463	-13399 388
BIC	31020 696	31034 804	27012 365	27006 029
Observations	22 770	22,770	31.656	31 656

 Table 4-6: Campaign Effect on Voting in 2012 Presidential Election, varying State

 Electoral Systems (CCES)

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C.

Table 4-6: Continued

The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001

Importantly, three election laws make a difference in motivating individuals go to the polls, even after accounting for their impacts of mobilization. Individuals living in early voting states become significantly more likely to vote if they have been recruited to vote by a campaign. This suggests that early voting has a positive impact on turnout after citizens have been mobilized. A state's election administration also has a positive impact on turnout among those who were contacted. Combining an individual's living in highly accessible electoral system state with having been contacted by a campaign is an important factor behind turnout in presidential elections. Conversely, residing in an absentee/mail voting state is negatively related to turnout if one was contacted. Individuals probably are not stimulated to send in a ballot in the same way they are mobilized to go to the polls. For example, GOTV campaigns focus on getting people to the polls, not prompting them to mail in completed ballots. But early voting and a highly accessible election administration encourage campaigns to reach out to more voters, a unique finding in research on election reform laws. Whereas election reform laws have an indirect effect on turnout through mobilization in midterm elections, they directly effect on turnout in presidential elections.

Compared to midterm elections, having been contacted by a campaign makes no difference whether a person votes, at least based on their income. However, having been contacted by a campaign does make a difference in who decides to vote in several other demographic categories. This includes females, African Americans, Hispanics, those of other races (all racial categories relative to non-Hispanic Whites), and home owners. For the other demographic categories, having been contacted does not change the statistical likelihood of an individual voting. In support of the second hypothesis, though, having been contacted does make a difference in motivating individuals to go to the polls.

To assess the substantive impact of early voting and a state's election administration, predicted probabilities are derived and presented in Figures 4-12 and 4-13. The first of these figures reports how likely individuals are to vote if they have been contacted, and if they live in states with or without early

voting; the second reports how likely individuals are to vote if they have been contacted, and varying the election administration performance variable from its minimum to maximum values.



According to Figure 4-12, comparing individuals who have been contacted, those in early voting states are 5% more likely to vote. Early voting has a large direct effect on turnout in presidential elections. Figure 4-13 shows that an individual in the state with the highest VAP-EPI (Minnesota and North Dakota) is approximately 6% more likely to vote than an individual in the state with the lowest VAP-EPI (Mississippi). When coupled with direct mobilization, early voting and a highly performing election administration positively shape turnout at the individual-level in presidential elections.

Robustness Check (CCES-CEM Models)

As in Chapters 2 and 3, coarsened exact matching samples [CES] are used to identify the sample average treatment effects for all three election laws; the same matching strategy is used in this chapter. Here, for both the presidential and midterm statistical models, the campaign contact variable is tested as a treatment variable. Tables D4-1 through D4-3 examine the sample treatment effects of early voting, absentee/mail voting, and SDR voting on campaign contacted in midterm elections, while Tables D4-4 through D4-6 do the same for campaign contact in presidential elections. The CEM results, largely, corroborate the prior findings (The tables reporting these results are in Appendix D.)

Most of the voting law variables have significant treatment effect as found in the earlier models. No-excuse absentee/mail voting (midterm elections) and SDR (both types of elections) are significantly related to a higher likelihood of being contacted by a campaign. Early voting and absentee/mail voting do not have significant treatment effects for presidential elections, compared to the prior models. But both these CEM models show that states with higher VAP-EPI are significantly related to contact. In general, the CEM models support the inference that states with more accessible voting systems (voting reform laws, and a high performing election administration) have campaigns that are more active in recruiting voters. Overall, the CEM findings strengthen the inferences reached in prior voter contact models. A state's set of convenience voting laws plays an important role in structuring the voter recruitment tendencies of campaigns.

Conclusion

The purpose of this study is to assess how state accessible voting systems structure campaign mobilization targeting strategies, and how this influences turnout. New evidence is provided demonstrating that convenience voting laws and a state's election administration structure campaigns' decisions to recruit more citizens to become voters. This is especially the case in presidential elections, when campaigns become more active in using the voting reform laws to recruit potential voters. Each of the election laws structure campaign contact, resulting in individuals in several demographic categories – including those of various income levels, racial minorities, and females – becoming more likely to vote. Early voting also has a unique campaign mobilization on the poor. In addition, mobilization is the mediating factor structuring the positive turnout effect attributed to early voting in presidential elections. Table 4-7 provides a summary of election reform laws with statistically significant effects on mobilization. This evidence is a response to prior election reform law research holding that these laws

must be paired with mobilization strategies to have an effect on turnout (see Berinsky 2005; Gronke et al. 2008; Karp and Banducci 2001). In sum, states with more accessible electoral systems motivate campaigns to recruit potential voters, and, in some cases, increase their likelihood of voting.

Table 4-7: Election Laws with Statistically Significant Effects on Mobilization

	Early Voting	Absentee/Mail Voting	SDR Voting
2012 Presidential Election	✓ (+ / -)	✓ (+)	✓ (+)
2010 and 2014 Midterm Elections		✓ (+)	✓ (+)

This study's results have a several implications. One, when considering the full impact of these laws, it is necessary to determine how these laws shape the mobilization strategies of political campaigns. These laws do not only have a direct impact on turnout, but also have an indirect effect on turnout through the mechanism of campaign mobilization. Two, research on election reform laws needs to control for the electoral context of a state to precisely estimate the impacts of these laws on mobilization and turnout. Three, distinguishing the influence of these laws in midterm and presidential elections is important since campaigns, parties, and other voter recruitment organizations invest more resources in mobilization during these high salience elections.

Chapter 5

Accessible Voting and Modes of Voting

Bringing together the political participation literature with studies of election reform laws, this study emphasizes the differential impact of voting reform laws on modes of voting across socioeconomic groups and across state electoral systems. Why would these laws increase turnout? Resources are needed to participate in politics (Verba, Brady, and Schlozman 1995). Convenience voting laws provide flexible scheduling for voting around busy work, school and family schedules. The November 2012 Current Population Survey reports that the number one reason for non-voting (19% of non-voters) is "too busy, conflicting schedules," with a health disability as the second most common response. Convenience voting laws can also reduce transportation time and overall information costs as well as address health barriers to voting (Pacheco and Fletcher 2014). These factors should be particularly advantageous to lower socioeconomic status and minority voters. Mobilization also matters, and candidates, parties, and interest groups use convenience voting laws for mobilization, especially early voting (see Burden et al 2014; Chapter 4).

Do economically disadvantaged citizens take advantage of absentee/mail, early, or SDR voting? Or is it the affluent, educated and those with higher socio-economic status that benefit from these voting reform laws? Although Chapters 2 through 4 demonstrated that the election laws in states are associated with higher turnout, they did not clearly link vote method choices with turnout. It is possible that having more convenience voting laws in state, and improved election administration makes individuals more likely to vote in a traditional manner (in-person Election Day), rather than casting ballots via one of the accessible voting methods.

An important evaluation the accessible voting framework is if the poor are more likely to use these laws to vote. Recent research by Burden et al. (2014) uses multinomial analysis to predict which individuals are more likely to not vote, engage in early voting, or cast a ballot via absentee voting relative to in-person Election Day voting. The author find linkages, between partisans, higher socio-economic

status citizens and the use of absentee and early voting. Like Berinsky (2005) and others, they infer from this evidence that having more voting options provides alternative ways to vote for regular voters. But it does not provide a new path to turnout for low-propensity voters. But their study does not include Sameday voting/registration as a voting option, a law most likely to benefit disadvantaged voters. Nor do they account for election administration in a state, nor data with large samples of poor citizens. It is worthwhile to revisit this issue.

In contrast to much of the public literature, chapters 2 through 4 demonstrated state election reform laws were associated with increased turnout and mobilization. These results showed that after controlling for overlapping election laws and election administration, there was indeed a positive effect of the laws on the probability of voting or voter mobilization. Even among subsamples of poor citizens, living below the poverty rate, the beneficial effects of the laws were apparent. But how exactly do voters cast their ballot, and do we find evidence of the poor casting a ballot using these alternative methods at greater rates.

Aside from Burden et al.(2014), the research designs used in the majority of previous studies do not control for the simultaneous existence of multiple voter reform laws in many states (but see Springer 2014). Much previous research has only studied one mode of voting, whether using aggregate state-level data (Brians and Grofman 2001; Highton 1997; Knack and White 2000; Southwell and Burchett 2000) or individual level data (Hanmer 2009; Neiheisel and Burden 2012 and others). Most published work on convenience voting using individual level data has not take into consideration how a state's election administration influences how votes are cast in elections. The research does not generally explore how poor versus non-poor citizens choose to cast their ballots. By using big data (Catalist) and advance panel models, this research shows how likely to poor are relative to the non-poor to cast a ballot via each of the convenience voting laws. Uniquely, this study shows that having more voting options in state increases the likelihood that an individual will cast a ballot using an accessible voting method, and reduce the likelihood that the poor will be less likely to vote than the non-poor.

State Election Administration and Methods of Casting Ballots

A state's electoral administration is related to the implementation of convenience voting laws, their performance, and individual decisions to vote. Charles Mann (2014, 117-119, 126), for example, uses Election Assistance Commission data to evaluate state absentee voting systems. He finds that the lack of uniform, cross-state standards for accepting or rejecting absentee ballots because of signature problems leads to some states having noticeably higher absentee ballot rejection rates than others in the 2008, 2010, and 2012 elections. Similarly, Hasen (2012, 167-169) case study on election laws shows electronic voting machines and poor ballot design were likely responsible for undercounted early voting ballots – a higher residual voting rate stemming from early vote ballots – in a 2006 Florida House of Representatives election. Lastly, Stein and Vonnahme (2014) study how the number of voting centers per precinct impacts voter experiences when casting ballots via early voting, on Election Day, or SDR. Using 2008 Survey of the Performance of American Elections data, they find that precincts with more polling stations have, on average, shorter voting lines and individuals who more highly rate polling place operations. The main reason individuals do not vote, they find, is because of long polling place lines. These findings hold for individuals who cast their ballots via Election Day, early, and SDR voting. These studies demonstrate that state variations in state election administration performance impact the performance of accessible voting methods, and individual propensities to use them.

As demonstrated throughout this study, a state's election administration and history of turnout (the VAP-EPI measure) can shape how convenience voting laws structure individual-level voting behavior. Variations in accessible voting systems may also influence how individuals cast their ballots, the central question of this chapter. The availability of the laws is likely linked to how individuals cast their ballot.

How do state variations in election administration performance relate to individual choices of vote methods? To give a descriptive portrayal of this variation, the states are categorized by whether they fell below or above the mean VAP-EPI (i.e., the election administration variable) value in 2012. In states

scoring high on the EPI election administration index, 45% of individuals cast ballots on Election Day, 12% by no-excuse absentee or mail, 4% by in-person early voting, and 0.75% via SDR. Conversely, in states scoring low on the EPI index only 38% voted on Election Day, and 0.1% with SDR. Interestingly, a slightly higher percentage of individuals in the least accessible states reported using absentee/mail (14%) and early voting (8%). But non-voting is more common in the least accessible states (41%), relative to the most accessible ones (38%). The takeaway here is that a state's election administration appears to be a factor structuring how people choose to cast their ballot.

What We Know

Absentee, Early, and Mail Voting

As discussed in Chapters 2 and 3, the prior literature on absentee, early, and mail argues these laws are more likely to be utilized by citizens with the high political interest and knowledge positively (Gronke 2013; Neeley and Richardson 2001; Stein 1998). These characteristics lead them to make their voting decisions earlier(Ashok et al. 2016; Burden et al. 2014). As has been found repeatedly in election reform law research, these individuals tend to be older, more partisan, of higher education, and more affluent.

There is inconsistent evidence of a relationship between mail voting and turnout (Kousser and Mullin 2007; Southwell and Burchett 2000), but most studies conclude that when there is an effect the law increase turnout among affluent, more educated, and older citizens (Karp and Banducci 2000). Early research on mail voting in Oregon using aggregate data suggests that all-mail elections increases voting rates significantly (Southwell and Burchett 2000). However, Kousser and Mullin (2007, 428) use a natural experiment in Californians and find "voters who are assigned to vote by mail turnout at lower rates than those who are sent to the polling place" (Kousser and Mullin 2007, 428). This suggests that individuals more often to choose to vote in-person at a polling place (via early or in-person Election Day

voting), rather than mail voting. Others find that mail voting is used by higher S.E.S. and older citizens (e.g, Alvarez, Levin, and Sinclair 2012).

Similar findings have been found with who uses absentee laws. Patterson and Caldeira (1985, 766) find that absentee voting has the greater impact on turnout in California and Iowa districts "where partisan candidates are likely to harvest absentee votes in the very localities where their party is otherwise strong." This suggests that absentee voting advantages partisan rather than non-partisan voters. Oliver (1996), similarly, finds overall turnout grows with absentee voting, and this effect is evident only when no-excuse absentee voter eligibility is combined with party mobilization efforts. The law itself, though, has a limited relationship to turnout. Considering these findings, Karp and Banducci (2001, 191) use individual-level American National Election Studies [ANES] data to find that "self-selection plays a greater role in determining who votes absentee than does party mobilization," with partisans, those active in politics, and those of higher socio-economic status being significantly more likely to engage in absentee voting. More recent research finds that absentee voting exacerbates existing biases in the electorate between those of lower and higher socio-economic status (Ashok et al. 2016; Barreto, Streb, and Guerra 2006; Gronke, Galanes-Rosenbaum, Miller, and Toffey 2008). However, Leighley and Nagler (2013) find that no-excuse absentee is associated with higher turnout. But they provide no evidence that it benefits specific demographic groups. Re-examining the linkage between citizens of varying S.E.S. and absentee/mail voting is needed.

Early voting is becoming increasingly common way to cast a ballot, especially in many Southern states. But many scholars find a limited effect of the laws on turnout (Springer 2014). Leighley and Nagler (2013) argue early voting has a minimal effect on turnout, a finding echoed in other studies (Gronke et al. 2008, 20;). When it is shown to have an effect, early voting has been associated with exacerbated turnout differences benefiting the old over the young and the affluent over the poor (Gimpel, Dyck, and Shaw 2008; Knopf 2012; Neeley and Richardson 2001; Stein 1998).

However, some research examining Southern states suggests that early voting may mitigate this socioeconomic bias in who votes. Herron and Smith (2014) find that early voting restrictions in Florida

and Georgia significant depressed turnout among Democratically-aligned groups, such as racial minorities. This suggests that marginalized voting groups benefit from the law. Stein and Garcia-Monet (1997) examine 1992 presidential election turnout in Texas counties and find that not only do counties with higher total participation have higher proportions of votes cast early, but that Bill Clinton's vote was higher in counties "where the proportion of votes cast early and the percentage change in new voter registration were high[er]" (668). This suggests that Democratic Party uses early voting to mobilize individuals from low propensity voting groups (e.g., racial minorities) that also tend to support the party. But, because of the ecological fallacy, the study cannot use aggregate turnout data to confirm that these individuals are casting ballots via early voting.

Ashok et al. (2016) use 2012 Catalist population/voter file data to study the types of people who cast their ballots early in states with at least a two-week early-voting window. Catalist provides information on how individuals cast their ballots. The authors consider early voters to encompass those who use absentee voting, in-person early voting, and mail-in ballot provisions. Rather than categorizing voters by socio-economic status, they examine individuals by age (old versus young), and partisanship (partisan versus independent). Using descriptive analyses, they find that early voters tend to be disproportionately older and more partisan than in-person Election Day voters, who are younger and more independent. This study supports the arguments that early voting laws retain larger proportions of already likely voting groups in the electorate, rather than stimulating new turnout (Berinsky 2005).

The Ashok et al.'s (2016) study yields valuable insights, but the authors only examine one presidential election, and, as demonstrated earlier chapters much of the action surrounding election reform takes place in midterms [although this study finds stronger effects of the laws in presidential election]. The authors do not use multivariate analyses, so their study cannot evaluate questions of how other individual factors – education, income, mobility, and other factors associated with election reform law usage – affect decisions to use the laws for casting a ballot. The authors do not account for turnout biases associated with income cleavages, even though income is one of the most important correlates associated with voting (Leighley and Nagler 2014; Wolfinger and Rosenstone 1980). Using individual-

level Catalist data drawn from all fifty states, this study updates these findings with comprehensive models to identify if poor versus non-poor citizens are more or less likely to vote via one of these methods.

Same Day Registration

Compared to these other voting methods, SDR has been found to benefit lower SES voters as it removes the need for voters to complete two separate actions: register before an election, and then casting a ballot on a later day (Burden et al. 2014, 96; Hanmer 2009; Springer 2014; Wolfinger, Highton, and Mullin 2005, 3; Wolfinger and Rosenstone 1980). A lower S.E.S. citizen is not penalized for neglecting or forgetting to register. He or she merely needs to be aware of the date of the election, and the location of the polling place. SDR may also reduce the informational threshold needed to understand how to register to vote. This lower information costs suggests that SDR might be a preferred voting option for the poor. It is not surprising that Hanmer (2009) finds that young and less educated citizens are most likely to benefit from SDR.

SDR may draw voters to the polls because it lets people vote when their interest in political campaigns "has reached its peak" (Wolfinger and Rosenstone 1980, 61). Individuals from less likely voting groups, such as the poor, are more likely to become interested in a campaign closer to Election Day (Ashok et al. 2016). This unique stimulation effect of SDR is suggested by research showing that face-to-face interactions on Election Day produce social capital and bring potential voters to polling locations (Arceneaux, Kousser, and Mullin 20 12; Fortier 2006; Funk 2010; Kropf, Swindell, and Wemlinger 2009; Thompson 2004). Field experiments illustrate that voting is positively affected by community festivals marking the election, and when citizen voting histories are made widely known in one's neighborhoods by campaigns and parties (Gerber, Green, and Larimer 2008; Panagopoulos 2010; Sinclair 2012). Additionally, other researchers show that get-out-the-vote [GOTV] efforts have their most pronounced effect on turnout for those who vote at their polling place on Election Day, rather than by the less visible processes of absentee or mail voting (Arceneaux, Kousser, and Mullin 2012). Studying

potential voters' social networks, Rolfe (2012) also finds that individuals' behavior is conditional on the vote cues of their acquaintances, friends, and family members. If these other network members vote nearer Election Day, an individual is more likely to vote, and possibly use the same voting method. These results are consistent with research showing that individuals from less likely voting groups are more likely to turnout on Election Day.

Because of these low information and simulation mechanisms, many studies have found that SDR does lead to increased turnout (Brians and Grofman 2001; Burden, Canon, Mayer, and Moynihan 2014; Fenster 1994; Fitzgerald 2005; Hanmer 2009; Knack 2001; Neiheisel and Burden 2012; Rigby and Springer 2011; Springer 2014; Tolbert et al 2008). However, there are few studies of whether low S.E.S. citizens directly benefit from SDR. Two studies provide suggestive. Burden and Neiheisel (2012) use a natural experiment of Wisconsin counties to measure turnout before and after the adoption of SDR in the state in 1976. While they find SDR increases turnout by 3 percentage points, they also note that the share of county turnout comprised of Democrats decreases by nearly 6 percentage points. They conclude that SDR positively shapes turnout among individual from likely voting groups (e.g., higher S.E.S.) who tend also to be Republican. Similarly, Highton (1997) uses 1980 and 1992 CPS data to compare the turnout of individuals in SDR and non-SDR states. His findings indicate that higher income citizens are more likely to report voting in SDR states. The early studies before widespread use of SDR or single state case studies (Burden and Neiheisel 2012), limits the generalizability of the findings.

Burden, Canon, Mayer, and Moynihan (2014), as discussed earlier, make several key contributions to the study of convenience voting. To address the question of how individuals choose to cast their ballot, they examine how likely individuals are to not vote, vote early or vote absentee rather than vote in-person on Election Day. Based on their results of 2008 and 2012 CPS they find that more affluent citizens are more likely to use convenience voting laws. However, when they measure what mode of voting individuals are likely to choose, they do not include SDR as a category. While their study makes a needed contribution to this area of research, these limitations need to be addressed to strengthen research on how individuals cast ballots.

Research Hypotheses

With a few exceptions, most previous research generally finds convenience voting laws typically benefit the most advantaged voters defined by higher household incomes and formal education, with SDR being – in some cases – the exception to this rule. A key limitation of all these studies, however, is that they do not measure the accessibility of state electoral systems – the set of convenience voting laws and election administration. By ignoring these contextual feature of the states, past studies may be conflating low S.E.S. citizens' lower propensities to vote and use of the laws with state characteristics such as poor election administration of traditional voting laws. Another added advantage of this research is the availability of very large population sample data from Catalist, with numerous observations of usage of each of these modes of voting in both midterm and presidential elections.

This study develops a number of testable hypotheses:

H1: Poor individuals will be more likely than non-poor individuals to cast a ballot using SDR, as SDR minimizes the information and time needed to vote.

H2: Casting a ballot with early, mail or absentee voting, or SDR may be different in states with high or low accessible voting systems.

Convenience voting laws may have the greatest effects in low accessibility states where the ceiling is lower, or in high accessibility states that already encourage participation in politics.

Data and Methods

This study employs multinomial logistic regression models to evaluate vote method choice among poor versus non-poor individuals. This uses Catalist voter roll population data to predict turnout in the 2014 and 2012 elections, controlling for voting in the 2010 and 2008 elections, respectively. Repeated measures of voting for the same individuals over time controls for other factors that may shape individual-level using a panel survey design. The sample includes approximately 2 million respondents for both years. Individuals are denoted by whether they voted via absentee, early, mail, or in-person Election Day. An SDR voters was defined as an individual who resided in a SDR state, registered and voted within a month of an election, and did not vote via in-person Election, early, or absentee/mail. Based on this data, a multiple category dependent variable was constructed. Coding for this variable is 0 for non-voters, 1 for in-person Election Day voters, 2 for early voters, 3 for no-excuse absentee or mail voters, and 4 for SDR voters. Except for the SDR category, this is the measurement used by Burden et al. (2014) in their examination of vote method choices at the individual-level. In the 2014 midterm election, Catalist descriptive statistics for this measure show that 64.61% of individuals were non-voters, 23.78% in-person Election Day voters, 2.9% early voters, 8.51% absentee/mail voters, and 0.21% SDR voters; in the 2012 presidential election, 41.99% were non-voters, 38.9% in-person Election Day voters, 6.12% early voters, 12.64% absentee/mail voters, and 0.35% SDR voters.

To check the validity of this measure, Table 5-1 compares the Catalist and Cooperative Congressional Election Study accessible voting usage measures for 2012 and 2014.

			2014 Midterm		
2014 CCES			(Catalist)		
	Percent	Ν		Percent	Ν
Non-voter	53.14%	29,794	Non-voter	62.86%	1,459,366
In-person Election					
Day	26.91%	15,088	In-person Election Day	24.96%	579,396
Early Voting	7.27%	4,078	Early Voting	3.04%	70,649
Absentee/Mail Voting	12.10%	6,786	Absentee/Mail Voting	8.92%	207,140
SDR	0.58%	325	SDR	0.22%	5,087
		56,071			2,321,638
2012 CCES			2012 Presidential (Catalist)		
	Percent	Ν		Percent	Ν
Non-voter	36.45%	19,838	Non-voter	39.58%	878,043
In-person Election					
Day	35.21%	19,165	In-person Election Day	40.55%	899,572
Early Voting	12.04%	6,551	Early Voting	6.38%	141,437
Absentee/Mail Voting	15.48%	8,423	Absentee/Mail Voting	13.13%	219,286
SDR	0.82%	449	SDR	0.36%	8,051
		54,426			2,146,389

 Table 5-1: Comparing Catalist and CCES Measures of the Proportion of Americans who used several Modes of Voting in 2012 and 2014 (Catalist and CCES)

These measures indicate that the Catalist and CCES measure are to some degree similar. The SDR variable appears to have high convergence validity, as both the datasets show that less than 1% of the electorate cast a ballot using this method in 2012 and 2014. Differences, though, include a higher percentage of non-voters in the Catalist dataset, and a higher percentage of in-person Election Day (in 2014), early, and absentee/mail voters in the CCES dataset. Due to the overreported biases known to be present with CCES data, the Catalist results likely are closer to the actual usages rates of these laws. This comparison shows that one can have confidence in the Catalist measures of how individuals cast ballots in the 2012 and 2014 elections.

The sample population Catalist data from Chapters 2 and 3 is merged with data on state convenience voting laws and election administration performance (VAP-EPI). Electoral competition is measured using the margin of victory variable present in this study's other chapters.

The primary explanatory variable is the poor variable used in Chapter 2. Key variables also include a state's election administration and count of voting reform laws. The count variable controls for the various set of voting options that exist across the American states. All the other control variables from Chapters 2 and 3 are also used in this chapter.. These include income, male, age, education, African American, Hispanic, Asian, other race, non-Hispanic whites (reference group), partisan, political interest, length of residence, employment, and home ownership.

Results

Table 5-2 shows how an individual's likelihood of casting a ballot using one of four methods (inperson Election Day, early, absentee/mail, and SDR voting) changed from 2008 to 2012, relative to nonvoting. Because of its importance in explaining individual voter behavior, this model includes the election administration variable from the preceding chapters; a baseline model (Table E5-1) without this variable is included in Appendix E, and lists similar results. There are several key findings. First, the null poor coefficients for early voting and SDR indicates that the negative relationship between being poor and voting disappears when these voting options are available in a state. The poor are not significantly less likely than the non-poor to cast ballots via one of these methods. Conversely, the poor are significantly less likely than the non-poor to become in-person Election Day voters or absentee/mail voters. Importantly, this table demonstrates that the poor are not less likely to vote in states where early or SDR voting laws exist

,	0		, , , , , , , , , , , , , , , , , , , ,	,
	In-Person Election	Early Voting	Absentee/Mail	SDR Voting
	Day Voting		Voting	
Poor	-0.122**	-0.090	-0.183**	-0.034
	(0.042)	(0.072)	(0.059)	(0.084)
Vote 2008	1.927^{***}	1.823***	1.827***	0.345^{*}
	(0.065)	(0.085)	(0.100)	(0.202)
Count of	-0.138**	0.438	0.649**	0.948**
Election	(0.062)	(0.302)	(0.233)	(0.320)
Reform Laws				
State Election	0.025^{**}	-0.088	-0.021	0.444^{***}
Administration	(0.012)	(0.062)	(0.046)	(0.099)
(VAP-EPI)				
Pseudo R^2	0.189	0.189	0.189	0.189
Pseudo LL	-2150171.443	-2150171.443	-2150171.443	-2150171.443
BIC	4301058.888	4301058.888	4301058.888	4301058.888
Observations	2,218,389	2,218,389	2,218,389	2,218,389

 Table 5-2: Change in Individual Likelihood of Using Voting Method relative to Non-Voting from

 2008 to 2012, while Controlling for State Election Administration (Catalist; Lagged Panel Model)

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix C. The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, *** p < 0.05, **** p < 0.001

Relative to remaining a non-voter in 2012, Figure 5-1 simulates a poor versus non-poor person's probability of changing from a non-voter in 2008 to a voter via one of these methods. For this graph, predicted probabilities are calculated on a subsample of non-voters in 2008 to examine how likely poor versus non-poor individuals are to cast (or not) a ballot in 2012 via one of the voting methods, with all other variables held at mean values. While the non-poor have slightly higher probabilities of becoming absentee/mail voters (7%) compared to the poor (6%), both the poor and non-poor are equally likely to convert from being a non-voter into an early voter (3%). Consistent with the statistical findings, both the

poor and non-poor have a very low substantive probability (both under 1%) of changing into a SDR voter. If given the option, poor and non-poor citizens appear more likely to become early or absentee/mail voters, rather than SDR voters.

Despite the growing popularity of accessible voting methods, Figure 5-1 also shows the persistence of in-person Election Day voting. Compared to the other voting methods, Election Day voting has the largest substantive effect in changing the poor (23%) and non-poor (24%) from non-voters into voters. There is also a high level of persistence among non-voters, especially among the poor. If a poor citizen did not vote in 2008, they were highly likely (68%) to remain non-voters in 2012; non-poor citizens who did not cast ballots in 2008 were nearly as likely to stay disengaged (66%) in 2012. Even with the high persistence of Election Day voting and non-voting, this evidence shows early voting and absentee/mail voting increase the likelihood that the poor and non-poor will convert into voters across these presidential elections. Also, none of the convenience voting laws disproportionately benefits individuals for either economic class.



Note: Predicted probabilities derived from Table 5-2. Non-voters include in this tabulation.

Revisiting Table 5-2, the count of election reform laws per state makes a significant difference in individual vote method choices. Relative to non-voting, individuals are significantly more likely to become absentee/mail or SDR voters in states with more convenience voting laws, while they are less

likely to become in-person Election Day voters. This means that when a state has more vote method options, individuals are more likely to cast their ballots using these alternative methods. The positive but insignificant coefficient for early voting also suggests that individuals are more likely to become early voters, rather than remain non-voters, in states with higher numbers of reform laws.

In Figure 5-2, the predicted probability of converting from a non-voter in 2008 to an in-person Election Day voter in 2012 is compared to the probability of converting from a non-voter to absentee/mail voter, varying the total number of convenience voting laws by state and holding all other variable values at their mean values. Consistent with the statistical interpretation, when a state has more than one election reform law, individuals become less likely to cast their ballots via in-person Election Day voting. Conversely, they become much more likely to become absentee/mail voters. At the minimum number of convenience voting laws (1), individuals have a 26% probability of changing from non-voters in 2008 to in-person Election Day voters in 2012, while they have only a 5% chance of converting into an absentee/mail voter. However, at the maximum number of convenience voting laws (3), individuals have a 17% likelihood of become absentee/mail voters, identical to their likelihood of being in-person Election Day voters (17%). Given more vote method options, individuals are more likely to use an alternative mode of voting.



Lastly, a state's election administration is an important influence on how individuals choose to cast their ballots. Compared to non-voting, a person is significantly more likely to become an in-person Election Day or SDR voter when their state has a highly performing election administration. The negative direction but insignificant early voting and absentee/mail voting coefficients suggest that individuals become less likely to cast their ballots via these methods when their state has a more accessible election administration. Figure 5-4 displays how an individual's probability of changing from a non-voter in 2008 to an in-person Election Day voter in 2012, varying the election administration performance variable between its minimum and maximum values. In the least accessible state (Mississippi), an individual has a 16% probability of changing into an in-person Election Day voter, while this probability is 25% in the most accessible states (Minnesota and North Dakota). The figure shows that the likelihood of converting into an in-person Election Day voter peaks at the VAP-EPI value of 68 (e.g., Wisconsin), and then tapers off slightly in the higher VAP-EPI states. This suggests individuals in states with a more accessible election administration are more likely to choose to vote via an alternative voting method, rather than use in-person Election Day voting



Modes of Voting in 2014 – Multinomial Regression

Table 5-3 depicts how an individual's likelihood of casting a ballot using one of four methods (inperson Election Day, early, absentee/mail, and SDR voting) changed from 2010 to 2014, relative to nonvoting. The election administration variable is also incorporated into this model; a model without this variable is included in Appendix E (Table E5-2), and achieves similar results. According to the results, the poor and non-poor are equally likely to choose cast a ballot (as opposed to not voting) in states with early and SDR voting. This strengthens the inference that states with these voting options help equalize turnout between poor and non-poor citizens. In contrast, poor individuals are significantly less likely than the non-poor to have a positive change in their likelihood of being in-person Election Day or absentee/mail voters. Even so, two modes of alternative voting (early and SDR) are shown to temper turnout disparities between S.E.S. classes.

2010 to 2014, wh	2010 to 2014, while Controlling for State Election Administration (Catalist, Eagged 1 and Wodel)						
	In-Person Election	Early Voting	Absentee/Mail	SDR Voting			
	Day Voting		Voting				
Poor	-0.127***	-0.126	-0.124**	0.043			
	(0.035)	(0.078)	(0.049)	(0.127)			
Vote 2010	2.043***	2.040^{***}	2.070^{***}	1.240***			
	(0.063)	(0.114)	(0.118)	(0.166)			
Count of	-0.123**	0.289	0.993**	3.799**			
Election	(0.062)	(0.316)	(0.324)	(1.574)			
Reform Laws							
State Election	0.036**	-0.113	-0.037	0.143*			
Administration	(0.012)	(0.071)	(0.039)	(0.086)			
(VAP-EPI)							
Pseudo R^2	0.227	0.227	0.227	0.227			
Pseudo LL	-1746371.840	-1746371.840	-1746371.840	-1746371.840			
BIC	3493461.912	3493461.912	3493461.912	3493461.912			
Observations	2321638	2321638	2321638	2321638			

Table 5-3: Change in Individual Likelihood of Using Voting Method relative to Non-Voting from2010 to 2014, while Controlling for State Election Administration (Catalist; Lagged Panel Model)

Note: All control variables listed in methods section are incorporated into these models; to conserve on space, only the key covariates are reported here, but the full tables are listed in Appendix A. The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses.

p < 0.10, p < 0.05, p < 0.001

To make these coefficients interpretable, Figure 5-4 reports the predicted probabilities of poor and non-poor individuals' probabilities of changing (or not) from a non-voter in 2010 to a voter in 2014 through one of these vote methods, holding all other variables at their central tendencies. Of the alternative voting methods, absentee/mail voting makes the largest difference, as the poor (2%) and the non-poor (3%) both are substantively more likely to cast their ballots via this method, rather than not vote. Early voting also makes a substantive difference for the poor and non-poor (both 1%). Substantively, these two convenience voting laws appear to similarly benefit the poor and the non-poor. Comparatively, SDR voting makes a very slight difference (less than 1%) in changing non-poor and poor individuals who did not vote in 2010 into voters in 2014. This small difference, however, is likely because most SDR states have more than one accessible voting law, and individuals in these states might be more likely to cast their ballot via one of these alternative methods, or in-person on Election Day. Inperson Election Day voting is still the most popular mode of vote choice among both the poor (11%) and non-poor (12%). Finally, as in the presidential results, there is a high persistence of non-voting. Poor (86%) and non-poor (84%) individuals who did not vote in 2010 are highly likely to remain non-voters in 2014. Even so, Figure 5-4 demonstrates that two alternative modes of voting (absentee/mail and early voting) make positive substantive differences in increasing turnout among the poor and non-poor.



Note: Predicted probabilities derived from Table 5-2. Non-voters included in this tabulation.

Returning to Table 5-3, having more convenience voting laws in a state increases an individual's likelihood of engaging in several modes of voting, relative to non-voting. Higher number of state voting reform laws is positively and significantly related to individuals casting ballots using absentee/mail or SDR laws. The positive but insignificant early voting coefficient suggests that early voting is also more likely in midterm elections when these are more vote method choices in a state. Comparatively, when the number of these laws increase, individuals become significantly less likely to be in-person Election Day voters.

Figure 5-5 examines how likely an individual is to convert from a non-voter in 2010 into an inperson Election Day or absentee/mail voter in 2014, varying the number of convenience voting laws per state and keeping other variables at mean values. In states with only one accessible voting law, individuals are much more likely to become in-person Election Day voters (13%) than absentee/mail voters (2%). However, when there are three convenience voting laws in state, an individual is more likely to be an absentee/mail voter (12%) than an in-person Election Day voter (9%). Consistent with accessible voting expectations, when a state has more voting options, individuals are more likely to take advantage of alternative modes of voting.



Finally, Table 5-2 also shows that the accessibility of a state's election administration is also a key factor structuring individual vote method choices. Individuals are significantly more likely to cast their ballots using in-person Election Day or SDR methods when their state has a highly performing election administration. The negative but insignificant coefficients for absentee/mail and early voting suggest that casting ballots via these method is less likely in identical circumstances.

Figure 5-6 reports the probability of an individual converting from a non-voter in 2010 to an inperson Election Day voter in 2014, varying the election administration variable from its minimum to maximum values and holding other variables at their means. Individuals in states with the most accessible election administration systems are much more likely to cast a ballot via this method (20%) than those in the least accessible administration states (9%), a difference of 11%. Clearly, having a well-functioning election administration plays a pivotal role in converting non-voters into voters, and this is the case in both midterm and presidential elections.



Conclusion

This study provides new evidence that convenience voting laws, what this study refers to as accessible voting, have become dominant ways by which citizens participate in politics in the United States. Despite a high persistence of non-voting and in-person Election Day voting across elections, there is evidence in both midterm and presidential elections that absentee/mail, early, and SDR voting are more likely to be used by citizens to cast ballots, rather than not voting. Additionally, early and SDR voting help to equalize turnout propensities between low and high S.E.S. individuals. Also, while the statistical evidence indicates one mode of voting (absentee/mail) is more likely to be used by the non-poor, the substantive results indicate that this difference is very slight. Substantive results show that the poor and non-poor are more likely to become voters because of these laws. Past convenience voting literature is correct to point out that absentee/mail voting is more likely to be used by high-voting propensity individuals (Ashok et al. 2016; Berinsky 2005; Burden et al. 2017, 2014), but this study shows that convenience voting laws have beneficial turnout outcomes for individuals in both income groups.

An implication for future accessible voting research regards the necessity of controlling for the accessibility of a state's electoral system (election administration, and complexion of convenience laws) to understand individual vote method choice. Past studies were likely unable to uncover the above findings because they did not control for these factors. Election administration, for example, has a large influence on how individuals cast ballots. The Election Performance Index accounts for state variations in counting absentee ballots, processing provisional ballots (i.e., contested in-person Election Day ballots), and managing long lines at polling places (early, in-person Election Day, and SDR voting) that impact whether individuals can successfully use any of these methods. Additionally, states with more accessible voting law have individuals who are more likely to use an alternative mode of voting. This study recommends that future voting law studies control for state election administration and sets of election laws; this specification allows for better identification of the impacts of these laws on vote method choice and turnout.

More work is to be done. Further research is needed on why higher number of accessible voting reform laws per state is related to higher citizen probabilities of using voting reform laws. Does the direct mobilization associated with these laws (as shown in Chapter 4) suggest that citizens in these states are more aware of these sets of laws, with this information communicated to them by campaigns? Or do their social networks share information regarding these voting options (e.g., Rolfe 2012)? Additionally, the number of election reform laws per state was positively related to absentee/mail and SDR voting, but not early voting. Why do individuals selectively use these methods when their state has multiple ways of submitting ballots? Future research examining these questions would increase knowledge on the causal mechanisms behind vote method choice.

For advocates of voting reform, a policy implication of this work is that the three modes of voting reform laws (absentee/mail, early, and SDR) voting all facilitated increased turnout among both advantaged and disadvantaged citizens. While none of these laws is disproportionately used by affluent citizens compared to the less well-off, they make individuals in both groups more likely to change into voters rather than non-voters. For the poor, a historically marginalized voting group, and often a target of voting reform efforts, this is an important point. By providing citizens with more vote method options, and a high performing election administration, states help facilitate higher turnout among individuals.
Chapter 6

Conclusion

In sum, the accessible voting framework has shown that absentee/mail voting, early voting, SDR, and a well-performing election administration can improve turnout and stimulate campaigns to recruit individuals to vote. The findings derived from this framework are robust to many alternative specifications and tests. This work also shows, for social scientists, how the effects of convenience voting laws can be identified by controlling for the accessibility of a state's voting system. Additionally, the accessible voting framework can be extended in many directions regarding different demographic groups and election reform laws. For policy activists and political actors interested in increasing turnout and access to the ballot, this study shows how convenience voting laws and administration can accomplish these normative goals. Finally, this study helps rejuvenate faith in the ability of such laws to increase turnout and make this outcome more equal.

Overall, Chapters 2 through 5 have examined how the accessibility of a state's electoral system (administration and set of convenience voting laws) is an important shaper of turnout among both advantaged and disadvantaged members of electorate. Table 6-1 summarizes the key findings from each chapter. Simultaneously controlling for election administration and voting reform laws, first demonstrated in Chapter 2, shows that election reform laws not only positively shape turnout, but help turn non-voters into voters. Chapter 3 illustrated that these positive effects are not only limited to individuals to high-propensity voting groups, as suggested by past (Berinsky 2005; Gronke et al. 2008) and even recent literature (Burden et al. 2017, 2014). Rather, these laws can increase turnout among the poor, and even help them change from inactive to active voters, thereby fostering greater turnout parity in state voter turnout. This is also an update of Piven and Cloward's (1978) research findings; whereas these authors conclude that the poor engage in protests, strikes, and sit-ins in times of large scale economic disruption, this research shows that mundane election reform laws (absentee/mail, early, and SDR) can increase turnout among this demographic. Chapter 4 demonstrated, uniquely in the literature on voting reform

laws, how these laws encourage campaigns, candidates, and parties to target voters (both low and higher S.E.S.), and mobilize them to vote. Chapter 5 answered the long unsettled questions of whether these laws are disproportionately used by non-poor or poor citizens, and how state's election administration and set of laws impacts vote method choice. Although there is some bias in vote method choice, particularly with absentee/mail voting, all the convenience voting laws help both the poor and non-poor become more likely votes. Finally, these chapters attest to the importance of controlling for state election administration to more precisely estimate the impacts of these laws; having more accessible voting systems positively structures individual turnout choices and the effectiveness of these laws.

Chapter 2	• Early voting, SDR, and a highly performing state election administration increase individual likelihood of voting from 2010 to 2014 midterm elections.
	• Early voting and SDR also help convert non-voters into voters in midterm elections
	• SDR increase individual likelihood of voting from 2008 to 2012 presidential elections.
	• Effect of convenience voting laws most evident in midterm elections
Chapter 3	• Early voting and SDR help convert poor non-voters in 2010 into voters in 2014
	• Absentee/mail voting and SDR help convert poor non-voters in 2008 into voters in 2012

 Table 6-1: Key Accessible Voting Results from each Chapter

Table 6-1: Continued	
Chapter 4	• Absentee/mail voting and SDR related to more campaign contact in presidential and midterm elections
	• Absentee/mail also positively related to campaign contact of poor in midterms.
	• Early voting makes campaigns more likely to contact the poor relative to the non-poor during presidential elections
	• Convenience voting laws indirectly shape (e.g., mobilization) turnout in midterm elections, and directly (e.g., early voting and election administration) and indirectly shape turnout in presidential elections
Chapter 5	• Early and SDR voting have an equalizing influence on turnout between poor and non-poor.
	• Absentee/mail, early, and SDR voting make individuals (both poor and non-poor) more likely to vote, rather than not vote, either in midterm, presidential, or both types of elections.
	• A highly performing state election administration, and more convenience voting laws per state, also associated with higher likelihood of using alternative vote methods

Robustness checks were performed to see if the voting reform law estimates were an artifact of the specification of the election administration variable. This variable is a combination of the EPI and lagged VAP turnout measures, and some might view this as a tautological way of estimating contemporaneous turnout. To test if the results hold after removing the VAP component of the election administration variable, all the statistical models were re-executed using the EPI measure constructed by Pew Charitable Trusts. The accessible voting reform law results all hold. In a replication of the Chapter 2 models, Table 6-2 shows that SDR has a significantly positive effect on overall turnout in both midterm and presidential elections. Early voting also has a significant effect on voting in midterm elections. Table 6-3 replicates the findings from Chapter 3, similarly showing that SDR increases turnout among the poor in both types of elections, and that early voting (in midterm elections) and absentee/mail voting (in presidential elections) also raises their probability of casting a ballot. In Table 6-4, the mobilization effects demonstrated in Chapter 4 are replicated: All three election laws have positive effects on campaign recruitment in presidential elections, and SDR has positive effects on this outcome in both types of elections. Lastly, Tables 6-5 and 6-6 re-evaluate the modes of voting models from Chapter 5. The results from this chapter – early voting and SDR reducing turnout inequalities between the poor and nonpoor in presidential and midterm elections – are reproduced in the estimation models using the EPI variable. Importantly, these replications show the strength of the voting reform law findings in this research. Convenience voting laws, by themselves, increase overall turnout and turnout among the poor, and incentivize political campaigns to draw more voters to the polls.

 Table 6-2: Election Laws with Statistically Significant Effects on Turnout

	Early Voting	Absentee/Mail Voting	SDR Voting	Election
				Administration
				(EPI)
2012 Presidential Election			✓ (+)	
2014 Midterm Election	✓ (+)	✓ (-)	✓ (+)	✓ (+)

Table 0-3: Election Laws with Statistically Significant Effects on Poor Turnout					
	Early Voting	Absentee/Mail Voting	SDR Voting	Election	
				Administration	
				(EPI)	
2012 Presidential Election		✓ (+)	✓ (+)		
2014 Midterm Election	✓ (+)		✓ (+)		

Table 6-3: Election Laws with Statistically Significant Effects on Poor Turnout

Table 6-4: Election Laws with Statistically Significant Effects on Mobilization

	Early Voting	Absentee/Mail Voting	SDR Voting	Election
				Administration
				(EPI)
2012 Presidential Election	✓ (+ / -)	✓ (+)	✓ (+)	
2010/2014 Midterm Elections			✓ (+)	

	Poor	Count of Election Laws	Election Administration (EPI)
In-Person Election Day Voting	✓ (-)	✓ (-)	
Early Voting			
Absentee/Mail Voting	✓ (-)	✓ (+)	
SDR Voting			✓ (+)

 Table 6-5: Election Laws and Administration Coefficients with Statistically Significant Effects on

 How Poor and Non-Poor Individuals Probability of Voting Changes from 2008 to 2012

 Table 6-6: Election Laws and Administration Coefficients with Statistically Significant Effects on

 How Poor and Non-Poor Individuals Probability of Voting Changes from 2010 to 2014

	Poor	Count of Election	Election Administration (EPI)
		Laws	
In-Person Election Day Voting	✓ (-)	✓ (-)	✓ (+)
Early Voting			
Absentee/Mail Voting	✓ (-)	✓ (+)	
SDR Voting		✓ (+)	

Building on recent research on convenience voting laws (Burden et al. 2014; Hanmer 2009; Leighley and Nagler 2013; Springer 2014), this study modifies the rational choice theory take on election reform laws, and demonstrates that the operation of the laws is precisely estimated in an accessible voting framework. The accessible voting framework emphasizes the sociological and contextual embeddedness of the act of voting. It also recognizes that political behavior and state adoption of election reform laws are structured by a state's electoral system. A large number of researchers (Berelson, Lazarsfeld, and McPhee 1954; Berger, Merdith, and Wheeler 2008; Dyck, Gaines, and Shaw 2009; Huckfeldt 1979; Lazarsfeld, Berelson, and Gaudet 1944; Putnam 2000; and others) have demonstrated that an individual's decision to vote dependent on not only themselves, but their sociological environment as well. In election reform research, Alvarez, Atkeson, and Hall (2013, 19-38) consider a state's "electoral ecosystem" or election administration to be an important structuring influence behind individual voting behavior. In this study, controlling for the accessibility of a state's electoral system accounts for

this factor. Returning to the neoinstitutional and policy feedback pillars of the accessible voting framework, the resource in the accessible voting framework is "access to the ballot." States with more accessible electoral systems – represented by convenience voting laws, a highly performing election administration, and higher past turnout – have citizens who are more likely to vote and make use of these laws. The opposite likely occurs in states with less accessible electoral systems. A key expectation of the accessible voting framework is that states with more accessible electoral systems want their citizens to vote, rich and poor, white and minority, and young and old.

While this research shows that states with more accessible voting systems have poor citizens who are more likely to partake in elections because of voting reform laws and a highly performing election administration, this research can be extended. Future studies can examine how other disadvantaged demographic groups (African Americans, Hispanics, young, low educated, and others) are impacted by the overall accessibility of a state's voting system. Taking advantage of Catalist data, large subsamples of African American and Hispanics - for example could be analyzed to see if they vote at higher rates and are more likely to be contacted by campaigns because of election reform laws. Another important area of research would evaluate how the accessibility of a state's voting system affects the working poor, a demographic group of interest in the realm of public policy. Whereas the definition of poor in thus study encompasses individuals at or below the federal poverty threshold, broadening the focus to include the working poor would raise the income threshold to 150% or 200% of the federal poverty rate. Testing the effects of accessible voting systems on these other demographic groups would help show if and how absentee/mail, early, SDR, and a highly performing election administration helps broadens the electorate to include more individuals from these groups. Theoretically, these

135

projects would illustrate if the overall accessibility of a state's voting system helps ameliorate the legacy of two-tiered pluralism (e.g., non-Hispanic White versus racial minority turnout) present in American politics.

Beyond absentee/mail, early, and SDR voting, other election reform laws can be examined within the accessible electoral systems framework. Waldman (2016, 200), chair of the Brennan Center for Justice, notes that as of 2016 nineteen states had passed twenty-five bills making it harder to vote," including shortened early voting window laws in a few states, annulment of SDR in North Carolina, and adoption of photo identification voter registration laws in many others (also see Brennan Center for Justice 2016). While the effects of photo identification laws are mixed (see Hicks, McKee, and Smith 2016, 413), the other two policy changes have depressed turnout among groups known to be economically marginalized, such as racial minorities and the more mobile (see Herron and Smith 2014). A 7.1% decline in African American turnout from 66.7% in 2012 to 59.6% in 2016, as reported by the Brookings Institutions, suggests that these restrictive voting laws have had a substantive impact that may have contributed to Donald Trump's victory over Hillary Clinton (Frey 2017). Building on this recent research, upcoming work could examine how these restrictive voting laws impact the overall accessibility of a state's electoral system, and how this impacts turnout among disadvantaged voting groups.

A final area of future research ought to address the impact of automatic voter registration laws in the United States. According to the National Conference of State Legislatures (2017), seven states have this new election reform measure. This law involves the government registering citizens to vote based upon pre-existent citizen identification data from state departments of transportation, rather than citizens registering themselves. This electoral arrangement is more typical of European democracies, which also tend to have higher turnout. Recent research (Ritter 2017) shows how automatic registration affected registration and turnout rates in Oregon – the only state to have implemented the law before a major national election – in the 2016 presidential election. Using original Oregon county-level data with individual-level data from the CCES, he shows that the law has had positive effects on registration and

turnout. A more extensive research agenda can further evaluate the effect of this law after it is fully implemented in other states, and in conjunction with a state's set of voting reform laws and election administration in a sample including individuals from all the American states.

Appendix A: Literature on Convenience Voting

Recognizing	Individual-Level Turnout	Aggregate Turnout
State		
Electoral		
Systems		
No	Ashok et al. 2016; Alvarez et al. 2012; Karp and Banducci 2000, 2001; Barreto et al. 2006; Berinsky 2005; Gimpel, Dyck, and Shaw 2008; Gronke et al. 2007, 2008; Herron and Smith (2014); Highton 1997; Knack 1995, 2001; Knopf 2012; Kousser and Mullin 2007; Mitchell and Wlezian 1995; Neely and Richardson 2001; Stein 1998; Teixeria 1992; Wolfinger and Rosenstone 1980	NA
Yes	Burden et al. 2014; Hanmer 2009; Leighley and Nagler 2013, 1993; Ritter 2017	Brians and Grofman 2001; Burden et al. 2017; Gronke 2001; Knack and White 2000; Oliver 1996; Patterson and Caldeira 1985; Springer 2014; Rhine 1995;; Southwell and Burchett 2000; Stein and Garcia-Monet 1997; Leighley and Nagler 2013
Focused on Par	ticipatory Inequality	
No	Alvarez et al. 2012; Karp and Banducci 2000, 2001; Barreto et al. 2006; Berinsky 2005; Gimpel, Dyck, and Shaw 2008; Gronke et al. 2007, 2008; Herron and Smith 2014; Highton 1997; Knack 1995, 2001; Knopf 2012; Kousser and Mullin 2007; Mitchell and Wlezian 1995; Leighley and Nagler 2009; Neely and Richardson 2001; Stein 1998; Teixeria 1992; Wolfinger and Rosenstone 1980	Brians and Grofman 2001; Gronke 2001;Fitzgerald 2005; Oliver 1996; Patterson and Caldeira 1985; Tolbert et al. 2008; Southwell and Burchett 2000; Springer 2014; Stein and Garcia-Monet 1997
Yes	Hanmer 2009; Rigby and Springer 2011, 2014; Ritter 2017	Knack and White 2000

Table A1-1: Categorizing the Literature on Election Reform Laws

Appendix B: Control Variable Coding

Catalist Male (male=1; female=0); Age (continuous variable ranging from 17-99); Length of Residence (continuous variable measuring number of years individual has resided at a home); Education (propensity score measure of an individual's likelihood of having a college degree); non-Hispanic White (non-Hispanic White=1; other=0); African American (African American=1; other=0); Hispanic (Hispanic=1; other=0); Asian (Asian=1; other=0); Other Race (Other Race=1; other=0); partisan (Republican or Democrat=1; other=0); News Interest (propensity score measure of an individual's likelihood of having a subscription to a news publication); Home Ownership (propensity score measure of an individual's likelihood of owning a home); Employed (employed=1; other=0. Based on a series of propensity score measures examining an individual's likelihood of being employed in one of several professions – manual labor, professional work, executive work, and home-based work. Individuals with over 50 percent probability of being employed are listed as such).

CCES Male (male=1; female=0); Age (continuous variable); Length of Residence (less than month=0; two to six months=1; seven to eleven months=2; one to two years=3; three to four years=4; five or more years=5); Education (no high school degree=0; high school degree=1; some college=2; two-year college degree=3; four-year college degree=4; post-graduate education=5); non-Hispanic White (non-Hispanic White=1; other=0); African American (African American=1; other=0); Hispanic (Hispanic=1; other=0); Asian (Asian=1; other=0); Other Race (Other Race=1; other=0); Strong Partisan (Strong Republican or Democrat=1; other=0); Political Interest (no interest=0; sporadic interest=1; more steady interest=2; interest most of time=3); Home Ownership (own home=1; other=0); Employed (employed full or part time=1; other=0).

Appendix C: Full Models

Chapter 2: Full Catalist Models

	Baseline	Election Administration	Income* Voting Laws	Income* Election	Full Interaction
			-	Administration	
Early Voting Law	0.189	0.288^{*}	0.444^{**}	0.285^{*}	0.333
	(0.160)	(0.160)	(0.211)	(0.157)	(0.216)
Absentee/Mail	-0.035	-0.089	-0.142	-0.080	-0.098
Voting Law	(0.149)	(0.145)	(0.224)	(0.143)	(0.214)
SDR Law	0.449^{***}	0.281^*	0.307^{**}	0.286^{*}	0.528^{**}
	(0.136)	(0.144)	(0.152)	(0.148)	(0.162)
State Election		0.018^{**}	0.018^{**}	0.003	-0.004
Administration (VAP-EPI)		(0.007)	(0.007)	(0.010)	(0.010)
Household Income	0.001	0.002	0.010^{*}	-0.084**	-0.114***
	(0.005)	(0.005)	(0.006)	(0.035)	(0.029)
Income*Early	· /	. /	-0.016		-0.005
Voting			(0.010)		(0.009)
Income*Absentee/			0.006		0.002
Mail Voting			(0.012)		(0.010)
Income*SDR			-0.002		-0.024**
			(0.010)		(0.009)
Income*Election				0.002^{**}	0.002^{***}
Administration				(0.001)	(0.000)
State Vote Margin	0.008^{**}	0.006^{**}	0.006^{**}	0.006^{**}	0.006^{**}
C	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Missing Income	-0.584***	-0.580***	-0.588***	-0.574***	-0.591***
C	(0.084)	(0.083)	(0.078)	(0.087)	(0.078)
Male	0.009	0.008	0.008	0.007	0.007
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Age	0.027***	0.027***	0.027***	0.027^{***}	0.027***
C	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	2.438***	2.472***	2.472^{***}	2.485***	2.479***
	(0.073)	(0.076)	(0.075)	(0.078)	(0.076)
Black	0.023	0.037	0.041	0.037	0.044
	(0.063)	(0.064)	(0.063)	(0.062)	(0.061)
Hispanic	-0.395***	-0.342***	-0.342***	-0.348***	-0.350***
•	(0.053)	(0.048)	(0.047)	(0.046)	(0.046)
Asian	-0.677***	-0.629***	-0.628***	-0.621***	-0.620***
	(0.094)	(0.093)	(0.095)	(0.095)	(0.096)
Other Race	-0.382***	-0.370***	-0.367***	-0.361***	-0.359***
	(0.091)	(0.091)	(0.090)	(0.088)	(0.087)
Partisan	0.340***	0.399***	0.397***	0.400^{**}	0.399***
	(0.080)	(0.082)	(0.082)	(0.082)	(0.081)

Table C2-1: Individual Likelihood of	Voting in 2014	Midterm Election ,	varying State	Electoral
Systems (Catalist)				

Table C2-1 Continue	ed					
News Interest	0.263^{***}	0.262^{***}	0.261***	0.261***	0.260^{***}	
	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	
Length of	0.012^{***}	0.012^{***}	0.012^{***}	0.012^{***}	0.012^{***}	
Residence	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	
Employed	-0.223***	-0.222***	-0.223***	-0.226***	-0.227***	
	(0.016)	(0.015)	(0.015)	(0.015)	(0.015)	
Home Ownership	0.373^{***}	0.360^{***}	0.363***	0.357^{***}	0.358***	
	(0.042)	(0.040)	(0.040)	(0.040)	(0.040)	
Constant	-4.077***	-5.090***	-5.147***	-4.185***	-3.855***	
	(0.290)	(0.522)	(0.517)	(0.659)	(0.632)	
Pseudo R^2	0.146	0.147	0.148	0.148	0.148	
Pseudo LL	-1307307.6	-1305816.5	-1305522.4	-1304970.0	-1304460.0	
BIC	2614893.752	2611926.111	2611381.885	2610247.828	2609271.765	
Observations	2321638	2321638	2321638	2321638	2321638	

The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. p < 0.10, p < 0.05, p < 0.001

(Catalist; Lagged Pa	Basalina	Floation	Incomo*	Income*	E.,11
	Dasenne	Administration	Voting Lowe	Floction	Full
		Administration	voting Laws	Administration	Interaction
Vote 2010	2 056***	2 056***	2 056***	2 055***	2 054***
V 010 2010	(0.072)	(0.069)	(0.069)	(0.070)	(0.070)
Farly Voting Law	0.306^{**}	0 399**	(0.007) 0 542**	0.396**	(0.070) 0.445 ^{**}
Larry Voting Law	(0.136)	(0.139)	(0.187)	(0.136)	(0.185)
Absentee/Mail	-0.183	-0.233*	-0.273	-0.225*	-0.237
Voting Law	(0.129)	(0.123)	(0.178)	(0.120)	(0.174)
SDR Law	0.384^{**}	0.223*	0 255*	0.228*	0 451**
SDR Lutt	(0.121)	(0.122)	(0.146)	(0.131)	(0.150)
State Election	(0.121)	0.018**	0.017^{**}	0.004	-0.002
Administration		(0.006)	(0.006)	(0.007)	(0.007)
(VAP-EPI)		(0.000)	(0.000)	(0.007)	(0.007)
Household Income	0.002	0.003	0.011^{**}	-0.072**	-0.099***
	(0.004)	(0.004)	(0.005)	(0.030)	(0.023)
Income*Early	· · · ·	× /	-0.015 [*]	~ /	-0.005
Voting			(0.008)		(0.008)
Income*Absentee/			0.005		0.002
Mail Voting			(0.009)		(0.008)
Income*SDR			-0.003		-0.023**
			(0.009)		(0.009)
Income*Election				0.001^{**}	0.002^{***}
Administration				(0.001)	(0.000)
State Vote Margin	0.016^{***}	0.015^{***}	0.015^{***}	0.015^{***}	0.015^{***}
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Missing Income	-0.305***	-0.300****	-0.309***	-0.296***	-0.311***
	(0.075)	(0.074)	(0.067)	(0.076)	(0.067)
Male	0.014^{*}	0.013^{*}	0.013*	0.013	0.013
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Age	0.013***	0.013***	0.013***	0.013***	0.013***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Education	1.558	1.591	1.591	1.601	1.596
	(0.075)	(0.081)	(0.081)	(0.083)	(0.082)
Black	-0.008	0.005	0.010	0.005	0.012
	(0.053)	(0.053)	(0.052)	(0.051)	(0.051)
Hispanic	-0.341	-0.289	-0.290	-0.295	-0.297
	(0.029)	(0.028)	(0.028)	(0.028)	(0.027)
Asian	-0.430	-0.384	-0.382	-0.378	-0.377
	(0.067)	(0.074)	(0.075)	(0.075)	(0.075)
Other Race	-0.396	-0.384	-0.382	-0.376	-0.375
D ((0.089)	(0.088)	(0.088)	(0.086)	(0.085)
Partisan	0.221	0.276	0.275	0.278	0.277
Name Inte	(0.066)	(0.067)	(0.066)	(0.066)	(0.065)
news interest	0.14/	0.146	0.145	0.145	0.144
Lough - f	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Length of	0.006	0.001	0.006	0.006	0.006
Kesidence	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

 Table C2-2: Change in Likelihood of Voting from 2010 to 2014, varying State Electoral Systems

 (Catalist; Lagged Panel Models)

Table C2-2 Continu	ed				
Employed	-0.176***	-0.176***	-0.177***	-0.180***	-0.180***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Home Ownership	0.325^{***}	0.313***	0.315***	0.310***	0.311***
	(0.030)	(0.031)	(0.031)	(0.032)	(0.032)
Constant	-4.548***	-5.508***	-5.565***	-4.733***	-4.438***
	(0.295)	(0.421)	(0.430)	(0.471)	(0.442)
Pseudo R^2	0.267	0.268	0.268	0.268	0.269
Pseudo LL	-1,122,335.0	-1121223.0	-1120992.9	-1120685.4	-1120303.0
BIC	2,244,963.1	2242753.860	2242337.647	2241693.353	2240970.386
Observations	2,321,638	2321638	2321638	2321638	2321638

The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, *** p < 0.05, **** p < 0.001

``	Baseline	Election	Income*	Income*	Full
		Administration	Voting Laws	Election	Interaction
			C	Administration	
Early Voting Law	0.037	0.057	0.239	0.065	0.228
	(0.135)	(0.127)	(0.173)	(0.128)	(0.186)
Absentee/Mail	0.002	0.001	-0.102	-0.002	-0.113
Voting Law	(0.131)	(0.124)	(0.202)	(0.125)	(0.201)
SDR Law	0.373**	0.318*	0.111	0.313*	0.176
	(0.179)	(0.173)	(0.237)	(0.172)	(0.252)
State Election	~ /	0.009	0.008	-0.004	-0.000
Administration		(0.009)	(0.009)	(0.014)	(0.014)
(VAP-EPI)		· · · ·			
Household Income	0.008^{*}	0.008^{*}	0.014^{**}	-0.070	-0.040
	(0.005)	(0.005)	(0.005)	(0.043)	(0.048)
Income*Early			-0.023**	× ,	-0.021
Voting			(0.012)		(0.013)
Income*Absentee/			0.014		0.015
Mail Voting			(0.013)		(0.013)
Income*SDR			0.025^{**}		0.017
			(0.012)		(0.012)
Income*Election			· · · ·	0.001^{*}	0.001
Administration				(0.001)	(0.001)
State Vote Margin	0.002	0.000	0.000	0.000	0.001
U	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Missing Income	-1.037***	-1.040***	-1.054***	-1.037***	-1.050***
U	(0.101)	(0.101)	(0.095)	(0.102)	(0.096)
Male	-0.135***	-0.136***	-0.136***	-0.136***	-0.136***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Age	0.017***	0.017***	0.017^{***}	0.017***	0.017***
C C	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	2.577***	2.581***	2.590^{***}	2.590^{***}	2.595***
	(0.086)	(0.085)	(0.083)	(0.088)	(0.085)
Black	0.294***	0.305***	0.308^{***}	0.304^{***}	0.307^{***}
	(0.043)	(0.046)	(0.044)	(0.044)	(0.043)
Hispanic	-0.043	-0.021	-0.024	-0.024	-0.025
-	(0.079)	(0.067)	(0.067)	(0.067)	(0.067)
Asian	-0.538***	-0.520***	-0.519***	-0.510***	-0.513***
	(0.049)	(0.044)	(0.044)	(0.045)	(0.045)
Other Race	-0.045	-0.046	-0.034	-0.033	-0.026
	(0.105)	(0.105)	(0.103)	(0.104)	(0.103)
Partisan	0.343^{***}	0.352^{***}	0.351***	0.356^{***}	0.353^{***}
	(0.065)	(0.063)	(0.063)	(0.063)	(0.063)
News Interest	0.287^{***}	0.287***	0.286^{***}	0.285^{***}	0.285^{***}
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Length of	0.007^{**}	0.007^{**}	0.007^{**}	0.007^{**}	0.007^{**}
Residence	(0.003)	(0.002)	(0.003)	(0.002)	(0.003)
Employed	-0.182***	-0.182***	-0.183***	-0.185***	-0.185***
* -	(0.023)	(0.023)	(0.023)	(0.022)	(0.022)

 Table C2-3: Individual Likelihood of Voting in 2012 Presidential Election, varying State Electoral Systems (Catalist)

Table C2-3: Continu	ıed				
Home Ownership	0.323***	0.322^{***}	0.325^{***}	0.318***	0.322^{***}
	(0.026)	(0.026)	(0.027)	(0.026)	(0.026)
Constant	-1.925***	-2.265***	-2.278 ^{***}	-1.590^{*}	-1.816**
	(0.414)	(0.634)	(0.597)	(0.892)	(0.886)
Pseudo R^2	0.142	0.142	0.142	0.142	0.143
Pseudo LL	-1278392.9	-1278043.4	-1276968.2	-1277381.2	-1276722.3
BIC	2557063.507	2556378.987	2554272.437	2555069.333	2553795.272
Observations	2218389	2218389	2218389	2218389	2218389

The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001

(Catalist; Lagged Pa	Deceline	Floation	Incomo*	Incomo*	E.11
	Baseline	A dministration	Income*	Election	Full
		Administration	voung Laws	A dministration	Interaction
Vista 2008	1 002***	1 002***	1 007***		1 007***
v 01e 2008	1.000	1.000	1.002	1.002	1.002
Forly Voting Low	(0.070)	(0.009)	(0.070)	(0.070)	(0.070)
Early voting Law	(0.116)	(0.102)	(0.303)	(0.109)	(0.293)
Abcontoo/Moil	(0.110)	(0.113)	(0.172)	(0.113)	(0.163)
Voting Law	-0.032	-0.052	(0.134)	-0.030	-0.104
SDP L aw	(0.104) 0.340**	0.310**	(0.182)	(0.101) 0.306 ^{**}	(0.182)
SDK Law	(0.127)	(0.125)	(0.152)	(0.124)	(0.208)
State Flection	(0.127)	(0.123)	0.005	(0.124)	(0.191)
Administration		(0.00)	(0.003)	(0.012)	(0.012)
$(V \Delta P_F PI)$		(0.008)	(0.008)	(0.012)	(0.012)
Household Income	0.012**	0.013**	0.020***	-0.055	-0.027
Household meonie	(0.012)	(0.013)	(0.020)	(0.039)	(0.027)
Income*Early	(0.007)	(0.007)	-0.026**	(0.037)	-0.024^*
Voting			(0.020)		(0.024)
Income*Absentee/			0.012)		0.017
Mail Voting			(0.013)		(0.013)
Income*SDR			0.019**		0.012
			(0.009)		(0.012)
Income*Election			(0.005)	0.001^{*}	0.001
Administration				(0.001)	(0.001)
State Vote Margin	0.002	0.001	0.001	0.001	0.001
6	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Missing Income	-0.758***	-0.760***	-0.776***	-0.757***	-0.772***
e	(0.095)	(0.094)	(0.087)	(0.096)	(0.087)
Male	-0.077****	-0.078***	-0.078***	-0.078^{***}	-0.078***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Age	0.005^{***}	0.005^{***}	0.005^{***}	0.005^{***}	0.005^{***}
C	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	1.629***	1.632***	1.641***	1.640***	1.644***
	(0.088)	(0.088)	(0.085)	(0.089)	(0.087)
Black	0.207^{***}	0.215***	0.218***	0.214***	0.217***
	(0.037)	(0.040)	(0.038)	(0.038)	(0.037)
Hispanic	-0.012	0.005	0.002	0.001	0.000
-	(0.056)	(0.050)	(0.051)	(0.051)	(0.051)
Asian	-0.326***	-0.313***	-0.312***	-0.305***	-0.308***
	(0.036)	(0.040)	(0.038)	(0.038)	(0.037)
Other Race	-0.083	-0.085	-0.071	-0.072	-0.064
	(0.140)	(0.141)	(0.136)	(0.138)	(0.135)
Partisan	0.272^{***}	0.279^{***}	0.277^{***}	0.283^{***}	0.278^{***}
	(0.057)	(0.056)	(0.055)	(0.056)	(0.055)
News Interest	0.184^{***}	0.183***	0.183***	0.182^{***}	0.182^{***}
	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)
Length of	-0.000	-0.000	-0.000	-0.000	-0.000
Residence	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)

 Table C2-4: Change in Likelihood of Voting from 2008 to 2012, varying State Electoral Systems

 (Catalist; Lagged Panel Models)

Table C2-4: Continu	ued				
Employed	-0.183***	-0.184***	-0.184***	-0.186***	-0.186***
	(0.024)	(0.024)	(0.023)	(0.022)	(0.022)
Home Ownership	0.276^{***}	0.275^{***}	0.279^{***}	0.272^{***}	0.276^{***}
	(0.020)	(0.020)	(0.020)	(0.019)	(0.019)
Constant	-1.936***	-2.188***	-2.212***	-1.608**	-1.814**
	(0.313)	(0.493)	(0.457)	(0.748)	(0.744)
Pseudo R^2	0.247	0.247	0.248	0.248	0.248
Pseudo LL	-11,21,008.9	-1120848.2	-1119991.0	-1120434.6	-1119837.6
BIC	2,242,310.1	2242003.192	2240332.742	2241190.602	2240040.592
Observations	2,218,389	2218389	2218389	2218389	2218389

The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, *** p < 0.05, **** p < 0.001

	Baseline	Election
		Administratio
		n
Early Voting Law	0.075	0.090
	(0.128)	(0.142)
Absentee/Mail	0.115	0.105
Voting Law	(0.125)	(0.130)
SDR Law	0.323**	0.294*
	(0.153)	(0.167)
State Election		0.003
Administration		(0.007)
(VAP-EPI)		
State Vote Margin	0.004	0.004
C C	(0.003)	(0.003)
Male	-0.078^{***}	-0.078***
	(0.017)	(0.017)
Age	0.028***	0.028^{***}
C	(0.001)	(0.001)
Education	4 166***	4 171***
Laucation	(0.141)	(0.141)
Black	0.213^{***}	0.215^{***}
Ditter	(0.055)	(0.055)
Hispanic	-0 239***	-0.230***
Inspanie	(0.058)	(0.051)
Asian	-0.321**	-0 311**
	(0.160)	(0.151)
Other Race	-0.170^{*}	-0.169*
	(0.094)	(0.095)
Partisan	0.393***	0.403***
	(0.093)	(0.093)
News Interest	0.287***	0.287***
	(0.020)	(0.020)
Length of	0.012***	0.012***
Residence	(0.002)	(0.002)
Employed	-0.256^{***}	-0.255***
Linprojea	(0.019)	(0.019)
Home Ownership	0.362***	0.361***
inome o whership	(0.036)	(0.036)
Constant	-4.458***	-4.633***
	(0.319)	(0.555)
Pseudo R^2	0.119	0.119
Pseudo LL	-198,997,685	-198,990,955
BIC	398.213.308	398.212.668
Observations	369.517	369.517

Table C3-1: Poor Person Likelihood of Votingin 2014 Midterm Election, varying StateElectoral Systems (Catalist)

Table 3-1: ContinuedThe estimates are logistic regression coefficients. Standard errorsare clustered by state in parentheses.* p < 0.10, ** p < 0.05, *** p < 0.001

	Baseline	Election	
		Administratio	
		n	
Vote 2010	1.999***	1.999***	
	(0.064)	(0.064)	
Early Voting Law	0.215^{*}	0.232^{*}	
• •	(0.117)	(0.128)	
Absentee/Mail	-0.053	-0.065	
Voting Law	(0.109)	(0.113)	
SDR Law	0.278**	0.245*	
	(0.131)	(0.146)	
State Election		0.004	
Administration		(0.006)	
(VAP-EPI)		(0.000)	
State Vote Margin	0.012^{***}	0.012^{***}	
State Vote Margin	(0.003)	(0.003)	
Male	-0.041**	-0.041**	
maie	(0.011)	(0.015)	
Age	0.013***	0.013***	
1150	(0.012)	(0.002)	
Education	2 869***	2 876***	
Laucation	(0.132)	(0.132)	
Black	(0.152) 0.157**	(0.132) 0.160***	
DIACK	(0.048)	(0.047)	
Uisponio	(0.048) 0.208***	(0.047)	
Hispanic	-0.208	-0.197	
Asian	(0.050)	(0.052)	
Asian	-0.1/1	-0.139	
Other Deer	(0.125)	(0.127)	
Other Race	-0.219	-0.21/	
	(0.094)	(0.095)	
Partisan	0.282	0.293	
	(0.078)	(0.078)	
News Interest	0.157	0.157	
	(0.019)	(0.019)	
Length of	0.006	0.006	
Residence	(0.001)	(0.001)	
Employed	-0.200	-0.199	
	(0.015)	(0.015)	
Home Ownership	0.300***	0.299***	
	(0.028)	(0.028)	
Constant	-4.732***	-4.928***	
	(0.271)	(0.461)	
Pseudo R^2	0.237	0.237	
Pseudo LL	-172,363.427	-172,356.248	
BIC	344,957.614	344,956.076	
Observations	369,517	369,517	

Table C3-2: Change in Poor Person Likelihood
of Voting from 2010 to 2014, varying State
Electoral Systems (Catalist; Lagged Panel Models)

The estimates are logistic regression coefficients.

Table 3-2: Continued

Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001

	Baseline	Election
		Administratio
		n
Early Voting Law	-0.161*	-0.175*
	(0.093)	(0.093)
Absentee/Mail	0.278^{**}	0.281^{***}
Voting Law	(0.085)	(0.084)
SDR Law	0.327^{**}	0.358^{**}
	(0.137)	(0.152)
State Election		-0.006
Administration		(0.008)
(VAP-EPI)		
State Vote Margin	0.001	0.002
-	(0.004)	(0.004)
Male	-0.205***	-0.205***
	(0.018)	(0.018)
Age	0.019^{***}	0.019^{***}
-	(0.001)	(0.001)
Education	4.004^{***}	4.002^{***}
	(0.086)	(0.087)
Black	0.484^{***}	0.477^{***}
	(0.034)	(0.037)
Hispanic	0.054	0.040
_	(0.079)	(0.076)
Asian	-0.322***	-0.336***
	(0.081)	(0.073)
Other Race	0.027	0.027
	(0.072)	(0.073)
Partisan	0.333***	0.327^{***}
	(0.060)	(0.058)
News Interest	0.308^{***}	0.308^{***}
	(0.021)	(0.020)
Length of	0.005^{**}	0.005^{**}
Residence	(0.002)	(0.002)
Employed	-0.180***	-0.182***
	(0.026)	(0.026)
Home Ownership	0.331***	0.329^{***}
	(0.036)	(0.035)
Constant	-2.337***	-2.123***
	(0.364)	(0.518)
Pseudo R^2	0.076	0.077
Pseudo LL	-223591.737	-223567.266
BIC	447400.645	447364.479
Observations	353200	353200

Table C3-3: Poor Person Likelihood of Voting in 2012 Presidential Election, varying State Electoral Systems (Catalist) **T**1

The estimates are logistic regression coefficients.

Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001

Elector al Systems (e		
	Baseline	Election
		Administration
Vote 2008	1.643***	1.645^{***}
	(0.050)	(0.050)
Early Voting Law	-0.102	-0.122
	(0.090)	(0.082)
Absentee/Mail	0.231***	0.236***
Voting Law	(0.065)	(0.059)
SDR Law	0.339***	0.384***
	(0.083)	(0.102)
State Election	(0.000)	-0.008
Administration		(0.007)
(VAP-EPI)		(0.007)
State Vote Margin	0.000	0.002
State Vote Margin	(0.000)	(0.002)
Male	-0.136^{***}	-0.136^{***}
Whate	(0.017)	(0.017)
٨ ٥٩	0.008***	0.008***
Age	(0.003)	(0.003)
Education	(0.001)	(0.001) 2 607***
Education	(0.088)	(0.088)
Plack	0.381***	(0.088) 0.370***
DIACK	(0.032)	(0.024)
Uispania	(0.052)	(0.034)
Inspanie	(0.058)	(0.077)
Asian	(0.038) 0.144**	(0.001) 0.165**
Asian	-0.144	-0.103
Other Dees	(0.003)	(0.062)
Other Race	0.042	0.042
	(0.065)	(0.066)
Partisan	0.271	0.262
	(0.055)	(0.051)
News Interest	0.212	0.211
X .1 C	(0.020)	(0.019)
Length of	-0.001	-0.001
Residence	(0.001)	(0.001)
Employed	-0.159	-0.161
	(0.024)	(0.024)
Home Ownership	0.297	0.294
a	(0.032)	(0.031)
Constant	-2.112	-1.791
	(0.282)	(0.418)
Pseudo R^2	0.168	0.168
Pseudo LL	-201,514.769	-201,467.584
BIC	403,259.484	403,177.888
Observations	353,200	353,200

Table C3-4: Change in Poor Person Likelihood of Voting from 2008 to 2012, varying State Electoral Systems (Catalist; Lagged Panel Models)

The estimates are logistic regression coefficients.

Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001

Chapter 4: Full CCES Models

	Baseline	ne Election P Administration Votin	Poor*	Poor*	Full
			Voting Laws	Election Administration	Interaction
Household Income	0.066^{***}	0.066^{***}			
	(0.005)	(0.005)			
Poor (<=Federal			-0.319***	-0.157	-0.282
Poverty Rate)			(0.051)	(0.335)	(0.371)
Early Voting Law	-0.151	-0.149	-0.141	-0.153	-0.140
	(0.112)	(0.113)	(0.114)	(0.112)	(0.114)
Poor*Early Voting			-0.049		-0.050
			(0.092)		(0.098)
Absentee/Mail	0.176	0.178^{*}	0.152	0.182^{*}	0.152
Voting Law	(0.109)	(0.107)	(0.108)	(0.106)	(0.108)
Poor*Absentee/	· · /	× ,	0.121		0.121
Mail Voting			(0.093)		(0.093)
SDR Law	0.135**	0.122^{*}	0.151*	0.122^{*}	0.149*
	(0.064)	(0.073)	(0.081)	(0.074)	(0.084)
Poor*SDR	(01001)	(0000)	-0.112	(00000)	-0.107
			(0.070)		(0.078)
State Election		0.002	0.001	0.001	0.001
Administration		(0.002)	(0.001)	(0.005)	(0.001)
(VAP-FPI)		(0.005)	(0.005)	(0.005)	(0.005)
Poor*Flection				-0.003	-0.001
Administration				(0.005)	(0.001)
Political	0.007**	0.007**	0.007^{**}	0.007^{**}	0.007^{**}
Competition	(0.007)	(0,003)	(0.007)	(0.007)	(0.007)
Missing Income	0.485^{***}	0.486***	(0.003)	0.028	0.028
wiissing meonie	(0.042)	(0.042)	(0.020)	(0.020)	(0.020)
Mala	(0.042)	0.056**	(0.030)	(0.030)	(0.030)
Walt	-0.030	-0.030	-0.043	-0.043	-0.043
٨٥٥	(0.023) 0.027***	(0.023) 0.027***	(0.022) 0.026***	(0.022)	(0.022)
ngu	(0.027)	(0.027)	(0.020)	(0.020)	(0.020)
Education	(0.001) 0.176***	(0.001) 0.176***	(0.001) 0.102***	(0.001) 0.102***	(0.001) 0.102***
Education	(0.170)	(0.000)	(0.192)	(0.008)	(0.192)
Dlask	(0.009)	(0.009)	(0.008)	(0.008)	(0.008)
DIACK	-0.202	-0.200	-0.2/2	-0.2/1	-0.2/2
Hisponia	(0.043)	(0.043)	(0.043)	(0.043)	(0.043)
Hispanic	-0.449	-0.444	-0.449	-0.449	-0.449
A .:	(0.034)	(0.036)	(0.037)	(0.037)	(0.03/)
Asian	-0.4/1	-0.46/	-0.451	-0.452	-0.451
	(0.064)	(0.065)	(0.065)	(0.065)	(0.065)
Other Race	0.049	0.051	0.048	0.049	0.048
	(0.044)	(0.043)	(0.043)	(0.043)	(0.043)
Strong Partisan	0.295	0.296	0.298	0.298	0.298
	(0.030)	(0.030)	(0.030)	(0.030)	(0.030)

Table C4-1: Individual Likelihood of Being Contacted by Campaign in 2010 and 2014 Midterm
Elections, varying State Electoral Systems (CCES)

Table C4-1: Continu	ued				
Political Interest	0.466^{***}	0.466^{***}	0.474^{***}	0.474^{***}	0.474^{***}
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Length of	0.138^{***}	0.138***	0.141^{***}	0.141^{***}	0.141^{***}
Residence	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Employed	-0.115***	-0.115***	-0.096***	-0.096***	-0.096***
	(0.026)	(0.026)	(0.027)	(0.027)	(0.027)
Home Ownership	0.298^{***}	0.297^{***}	0.334***	0.334***	0.334***
	(0.032)	(0.033)	(0.030)	(0.030)	(0.030)
Constant	-4.117***	-4.196***	-3.784***	-3.829***	-3.793***
	(0.230)	(0.312)	(0.327)	(0.327)	(0.336)
Pseudo R^2	0.173	0.173	0.172	0.172	0.172
Pseudo LL	-63802.678	-63801.847	-63905.456	-63910.416	-63905.427
BIC	127837.734	127847.690	128089.764	128076.447	128101.325
Observations	111176	111176	111176	111176	111176

Note: The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. Fixed effect for 2014 include in models. * p < 0.10, ** p < 0.05, *** p < 0.001

2014 Miluter in Electio	
	Poor
	Subsample
Early Voting Law	-0.177
	(0.136)
Absentee/Mail	0.245*
Voting Law	(0.131)
SDR Law	0.049
~	(0.079)
State Election	-0.001
Administration	(0.007)
(VAP-FPI)	(0.007)
Political	0.010^{**}
Competition	(0.010)
Missing Income	(0.004)
Missing meome	
Male	0.025
1120020	(0.051)
Age	0.027^{***}
1.180	(0.002)
Education	0.230^{***}
Luucution	(0.024)
Black	(0.024) 0.214**
DIACK	-0.214
Uispania	(0.079) 0.414***
Inspanie	-0.414
Asian	(0.100)
Asiali	-0.000
Other Dees	(0.218)
Other Race	-0.031
	(0.120)
Strong Partisan	0.333
	(0.050)
Political Interest	0.440
* 1 0	(0.025)
Length of	0.120
Residence	(0.020)
Employed	-0.079
	(0.065)
Home Ownership	0.360
	(0.064)
Constant	-4.268***
	(0.577)
Pseudo R^2	0.154
Pseudo LL	-15924.974
BIC	32040.589
Observations	22781

Table C4-2: Poor Person Likelihoodof being Contacted in 2010 and2014 Midterm Elections (CCES)

Note: The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. Fixed effect for 2014

Table C4-2: Continued

included in models. * p < 0.10, ** p < 0.05, *** p < 0.001

var ynng Statt Efector	Docaling (C	Flootion	Doom*	Daan*	E11
	Dasenne	Liecuon	roor*	FOOL	Full Interaction
		Administration	voting Laws	Election	Interaction
TT 1 11T	0.047***	0.000***		Administration	
Household Income	0.06/	0.068			
D (D 1 1	(0.007)	(0.007)	0.004***	0.420	0 70 4**
Poor (<=Federal			-0.3/4	-0.430	-0./04
Poverty Rate)	0.050*	0.000*	(0.0/6)	(0.460)	(0.356)
Early Voting Law	-0.253	-0.220	-0.319	-0.225	-0.322
	(0.133)	(0.117)	(0.129)	(0.119)	(0.132)
Poor*Early Voting			0.358		0.370
	**	**	(0.088)	**	(0.091)
Absentee/Mail	0.252	0.241	0.332	0.247	0.333
Voting Law	(0.128)	(0.117)	(0.126)	(0.118)	(0.127)
Poor*Absentee/			-0.324		-0.330
Mail Voting	**		(0.067)		(0.071)
SDR Law	0.212***	0.107	0.090	0.104	0.101
	(0.095)	(0.104)	(0.108)	(0.105)	(0.110)
Poor*SDR			0.056		0.015
			(0.094)		(0.104)
State Election		0.017	0.016	0.016	0.015
Administration		(0.010)	(0.011)	(0.012)	(0.011)
(VAP-EPI)					
Poor*Election				0.002	0.006
Administration				(0.008)	(0.006)
Political	0.018^{***}	0.015^{***}	0.015^{***}	0.015^{***}	0.015^{***}
Competition	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)
Missing Income	0.490^{***}	0.493***	0.035	0.035	0.035
C	(0.059)	(0.058)	(0.050)	(0.049)	(0.050)
Male	-0.098**	-0.097**	-0.083**	-0.084**	-0.082**
	(0.031)	(0.032)	(0.032)	(0.032)	(0.032)
Age	0.028***	0.028***	0.028^{***}	0.028^{***}	0.028^{***}
C	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	0.187^{***}	0.187***	0.203***	0.203***	0.203***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Black	-0.891***	-0.868***	-0.877***	-0.877***	-0.876***
	(0.066)	(0.062)	(0.063)	(0.063)	(0.063)
Hispanic	-0.688***	-0.645***	-0.650***	-0.649***	-0.650***
	(0.072)	(0.070)	(0.070)	(0.070)	(0.070)
Asian	-0.683***	-0.652***	-0.635***	-0.633****	-0.636***
	(0.154)	(0.158)	(0.156)	(0.156)	(0.155)
Other Race	-0.020	-0.008	-0.008	-0.007	-0.008
	(0.085)	(0.085)	(0.086)	(0.085)	(0.086)
Strong Partisan	0.206***	0.211***	0.215***	0.213***	0.215***
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	(0.038)	(0.040)	(0.040)	(0.040)	(0.040)
Political Interest	0.385***	0.386***	0.392***	0.392***	0.392***
_ 5111000 11101000	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)
Length of	0.117***	0.118***	0.119***	0.119***	0.119***
Residence	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
	()	()	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	()	(

Table C4-3: Individual Likelihood of Being Contact by Campaign in 2012 Presidential Election, varying State Electoral Systems (CCES)

Table C4-3: Continue	ed				
Employed	-0.075**	-0.079^{**}	-0.059^{*}	-0.058	-0.059^{*}
	(0.036)	(0.036)	(0.036)	(0.036)	(0.036)
Home Ownership	0.130**	0.126^{**}	0.166^{***}	0.167^{***}	0.166^{***}
	(0.046)	(0.046)	(0.048)	(0.048)	(0.048)
Constant	-4.593***	-5.317***	-4.848^{***}	-4.827***	-4.766***
	(0.334)	(0.672)	(0.708)	(0.765)	(0.752)
Pseudo R^2	0.161	0.162	0.161	0.161	0.161
Pseudo LL	-31359.066	-31326.787	-31375.235	-31390.311	-31374.406
BIC	62925.319	62871.666	63001.275	63009.619	63010.523
Observations	54426	54426	54426	54426	54426

Note: The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. Fixed effect for 2014 include in models. * p < 0.10, ** p < 0.05, *** p < 0.001

012 Presidential Ele	Door
	ruur Subcomplo
Forly Voting Low	
Early voung Law	0.052
Abaantaa /Mail	(0.101)
Ausentee/Mail	-0.012
voting Law	(0.101)
SDR Law	0.116
a 5 1 .	(0.123)
State Election	0.020
Administration	(0.010)
(VAP-EPI)	ى بى بى
Political	0.016^{***}
Competition	(0.004)
Missing Income	
Male	-0.024
	(0.065)
Age	0.024^{***}
-	(0.002)
Education	0.273***
	(0.027)
Black	-0.767***
-	(0.086)
Hispanic	-0.529***
r	(0.137)
Asian	-0.883**
	(0.398)
Other Race	0 170
	(0.183)
Strong Partisan	0.175^{**}
Suong Latisan	(0.063)
Political Interest	0.334^{***}
i onitical interest	(0.034)
Longth of	(0.034) 0.122***
Residence	(0.123)
Employed	(0.027)
Етприоуеа	-0.084
	(0.062)
Home Ownership	0.150
a	(0.065)
Constant	-5.487
	(0.617)
Pseudo R^2	0.135
Pseudo LL	-8065.206
BIC	16299.869
Observations	12262

Table C4-4: Poor PersonLikelihood of being Contacted in2012 Presidential Election(CCES)

Note: The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. Fixed effect for 2014

Table C4-4: Continued

included in models. * p < 0.10, ** p < 0.05, *** p < 0.001

Chapter 5: Full Catalist Models

State Lietora S	In-Person Flection	Farly Voting	Absentee/Mail	SDR Voting
	Day Voting	Larry voung	Voting	SDK voung
Poor	0.122**	0.090	0.183**	0.034
1 001	(0.122)	(0.070)	(0.103)	(0.034)
Vote 2008	(0.0+2) 1 027***	1 873***	(0.0 <i>37)</i> 1 827 ^{***}	0.345*
v 016 2000	(0.065)	(0.085)	(0, 100)	(0.3+3)
State Flection	0.005	0.083	(0.100)	(0.202) 0.444***
Administration	(0.023)	(0.062)	(0.021)	(0.444)
(VAP-EPI)	(0.012)	(0.002)	(0.040)	(0.099)
Count of	-0.138**	0.438	0.649^{**}	0.948^{**}
Election	(0.062)	(0.302)	(0.233)	(0.320)
Reform Laws		. ,		
Vote 2008				
Vote Margin	-0.007	0.069^{*}	0.002	-0.063**
	(0.007)	(0.037)	(0.016)	(0.030)
Missing Income	-0.967***	-0.786**	-0.687**	-1.330***
	(0.093)	(0.243)	(0.256)	(0.318)
Male	-0.049***	-0.132***	-0.167***	-0.038
	(0.013)	(0.021)	(0.021)	(0.034)
Age	0.000	0.013***	0.019***	-0.031***
0	(0.001)	(0.002)	(0.002)	(0.004)
Education	1.421^{***}	2.444^{***}	2.466***	0.692**
	(0.100)	(0.283)	(0.237)	(0.256)
Black	0.222^{***}	0.651**	-0.159	-0.231
	(0.048)	(0.217)	(0.232)	(0.356)
Hispanic	-0.003	0.106	0.004	0.073
1	(0.094)	(0.173)	(0.152)	(0.126)
Asian	-0.454***	-0.952***	0.051	-0.019
	(0.067)	(0.254)	(0.164)	(0.126)
Other Race	-0.083	-0.124	-0.078	-0.061
	(0.162)	(0.242)	(0.157)	(0.225)
Partisan	0.306**	-0.127	0.265	0.095
	(0.112)	(0.554)	(0.291)	(0.244)
News Interest	0.203***	0.154***	0.212***	-0.143**
	(0.021)	(0.037)	(0.025)	(0.045)
Length of	0.001	-0.001	-0.000	-0.029**
Residence	(0.002)	(0.004)	(0.004)	(0.014)
Employed	-0.121***	-0.305***	-0.278***	-0.049
* *	(0.023)	(0.040)	(0.043)	(0.196)
Home	0.307***	0.420***	0.187**	0.272
Ownership	(0.024)	(0.092)	(0.065)	(0.198)
Constant	-2.337***	-6.135	-4.001	-27.023****
	(0.697)	(4.338)	(2.907)	(7.839)

Table C5-1: Change in Individual Likelihood of Using Vote Method from 2008 to 2012 varyingState Electoral Systems, relative to Non-Voting (Catalist; Lagged Panel Model)

Table C5-1: Continued

Pseudo R^2	0.189	0.189	0.189	0.189	
Pseudo LL	-2150171.443	-2150171.443	-2150171.443	-2150171.443	
BIC	4301058.888	4301058.888	4301058.888	4301058.888	
Observations	2218389	2218389	2218389	2218389	

The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. Fixed time effect included for 2014. * p < 0.10, ** p < 0.05, *** p < 0.001

•••••••••••••••••••••••••••••••••••••••	In-Person Election	Early Voting	Absentee/Mail	SDR Voting
	Day Voting		Voting	C C
Poor	-0.127***	-0.126	-0.124**	0.043
	(0.035)	(0.078)	(0.049)	(0.127)
Vote 2010	2.043***	2.040^{***}	2.070^{***}	1.240^{***}
	(0.063)	(0.114)	(0.118)	(0.166)
Count of	-0.123***	0.289	0.993**	3.799**
Election	(0.062)	(0.316)	(0.324)	(1.574)
Reform Laws			· · · ·	
State Election	0.036**	-0.113	-0.037	0.143^{*}
Administration	(0.012)	(0.071)	(0.039)	(0.086)
(VAP-EPI)			()	()
Vote Margin	0.012^{**}	0.036	0.008	-0.025
8	(0.005)	(0.048)	(0.020)	(0.027)
Missing Income	-0.438***	-0.159	-0.146	-0.580**
8	(0.088)	(0.215)	(0.271)	(0.255)
Male	0.038**	-0.001	-0.092***	0.037
111110	(0.013)	(0.032)	(0.018)	(0.048)
Age	0.008***	0.023***	0.026***	-0.018
1180	(0,001)	(0.003)	(0.003)	(0.012)
Education	1 387***	1 817***	2.068***	0.562^{**}
	(0, 090)	(0.367)	(0, 200)	(0.191)
Black	0.095*	0 389**	-0.435*	-0.406
Didek	(0.053)	(0.175)	(0.242)	(0.377)
Hispanic	-0 334***	-0 335	-0.211	-0 570**
Inspanie	(0.070)	(0.235)	(0.143)	(0.219)
Asian	-0.629***	-1 385***	(0.145)	-0.609***
Asian	(0.02)	(0.106)	(0.115)	(0.130)
Other Pace	0.336***	0.65**	0.511***	0.105
Other Race	(0.102)	(0.212)	(0.120)	(0.452)
Dorticon	(0.102) 0.277 ^{**}	0.212)	(0.120)	0.806**
r ai tisali	(0.277)	-0.393	(0.193)	(0.248)
Nowe Interact	(0.110) 0.152***	(0.378) 0.111**	(0.233) 0.120***	(0.348)
news interest	(0.132)	(0.040)	(0.024)	-0.037
Longth of	(0.019)	(0.049)	(0.024)	(0.134)
Length of Desidence	(0.007)	-0.000	(0.003)	-0.027
Employed	(0.001) 0.127***	(0.003)	(0.005) 0.226***	(0.021)
Employed	-0.15/	-0.300	-0.330	(0.550)
TT	(0.015)	(0.047)	(0.030)	(0.093)
Home	0.325	0.560	0.156	-0.0//
Ownersnip	(0.032)	(0.111)	(0.051)	(0.127)
Constant	-0.009	-3.133	-5.404	-21.2/0
$\mathbf{D} 1 \mathbf{p}^2$	(0.828)	(4.857)	(2.453)	(4.310)
Pseudo R^2	0.227	0.227	0.227	0.227
Pseudo LL	-1/463/1.840	-1/463/1.840	-1/463/1.840	-1/463/1.840
BIC	3493461.912	3493461.912	3493461.912	3493461.912
Observations	2321638	2321638	2321638	2321638

Table C5-2: Change in Individual Likelihood of Using Vote Method from 2010 to 2014 varying State Electoral Systems, relative to Non-Voting (Catalist: Lagged Panel Model)

The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. Fixed time effect included for 2014. * p < 0.10, ** p < 0.05, *** p < 0.001

Appendix D

Chapter 2 CEM Models

Treatment and control groups matched on income, gender, age (cut points of 17.5, 29.5, 49.5, and 64.5 years), education, white, black, Hispanic, and Asian variables.

CEM Model Fit Statistics

()	
2,387	
1,841	
Non-Early Voting State	Early Voting State
31,815	79,361
31,729	77,805
86	1,556
0.30578203	
L1	Mean
$1.0*10^{-14}$	-2.6*10 ⁻¹⁴
9.1*10 ⁻¹⁵	9.4*10 ⁻¹⁵
0.02508	0.10996
$1.1*10^{-14}$	2.0*10 ⁻¹⁴
$4.2*10^{-15}$	5.3*10 ⁻¹⁵
$1.0*10^{-15}$	2.0*10 ⁻¹⁵
$1.5*10^{-15}$	1.1*10 ⁻¹⁵
4.4*10 ⁻¹⁶	2.1*10 ⁻¹⁶
	$\begin{array}{c} 2,387\\ 1,841\\ \hline \\ \hline \\ \textbf{Non-Early Voting State}\\ 31,815\\ 31,729\\ 86\\ \hline \\ 0.30578203\\ \hline \\ \hline \\ \textbf{L1}\\ 1.0*10^{-14}\\ 9.1*10^{-15}\\ \hline \\ 0.02508\\ 1.1*10^{-15}\\ \hline \\ 1.0*10^{-15}\\ \hline \\ 1.0*10^{-15}\\ \hline \\ 1.5*10^{-15}\\ \hline \\ 4.4*10^{-16}\\ \hline \end{array}$

1. Early Voting CEM Models (Midterm Elections)
CEM Model Fit Statistics

Number of Strata	2,387	
Number of Matched Strata	1,995	
	Non-Absentee/Mail	Absentee/Mail
	Voting State	Voting State
Full Sample	47,946	63,230
Matched	47,791	62,623
Unmatched	155	607
Multivariate L1 Distance	0.28289994	
Univariate L1 Distances		
	L1	Mean
Income	5.6*10 ⁻¹⁵	$2.7*10^{-13}$
Male	9.3*10 ⁻¹⁵	-4.0*10 ⁻¹⁵
Age	0.02273	0.09967
Education	$3.7*10^{-15}$	1.0*10 ⁻¹³
White	$1.0*10^{-14}$	$1.5*10^{-14}$
Black	$1.5*10^{-15}$	$-8.7*10^{-16}$
Hispanic	3.0*10 ⁻¹⁵	4.2*10 ⁻¹⁷
Asian	$3.9*10^{-16}$	-6.9*10 ⁻¹⁸

2. Absentee/Mail Voting CEM Models (Midterm Elections)

Number of Strata	2,387	
Number of Matched Strata	1,406	
	Non-SDR Voting State	SDR Voting State
Full Sample	96,505	14,671
Matched	90,556	14,645
Unmatched	5,949	26
Multivariate L1 Distance	0.33578899	
Univariate L1 Distances		
	L1	Mean
Income	$2.0*10^{-14}$	5.2*10 ⁻¹³
Male	$3.2*10^{-14}$	$2.7*10^{-14}$
Age	0.03045	-0.02693
Education	$2.1*10^{-14}$	2.3*10 ⁻¹³
White	$1.9*10^{-14}$	-2.6*10 ⁻¹⁴
Black	6.2*10 ⁻¹⁵	$2.4*10^{-15}$
Hispanic	8.6*10 ⁻¹⁶	$1.0*10^{-15}$
Asian	$2.5*10^{-15}$	3.2*10 ⁻¹⁶

3. SDR Voting CEM Models (Midterm Election)

Number of Strata	2,333	
Number of Matched Strata	1,702	
	Non-Early Voting State	Early Voting State
Full Sample	26,622	60,551
Matched	26,491	58,982
Unmatched	131	1,569
Multivariate L1 Distance	0.31259399	
Univariate L1 Distances		
	L1	Mean
Income	1.9*10 ⁻¹⁵	$1.2*10^{-14}$
Male	6.6*10 ⁻¹⁵	8.7*10 ⁻¹⁵
Age	0.02332	0.19413
Education	2.0*10 ⁻¹⁵	-1.3*10 ⁻¹⁴
White	1.7*10 ⁻¹⁵	-7.8*10 ⁻¹⁶
Black	2.3*10 ⁻¹⁵	$-4.2*10^{-16}$
Hispanic	5.6*10 ⁻¹⁷	$-1.1*10^{-16}$
Asian	7.8*10 ⁻¹⁸	$-1.6*10^{-17}$

1. Early Voting CEM Models (Presidential Elections)

Number of Strata	2,333	
Number of Matched Strata	1835	
	Non-Absentee/Mail	Absentee/Mail
	Voting State	Voting State
Full Sample	39,461	47,712
Matched	39,203	47,026
Unmatched	258	686
Multivariate L1 Distance	0.2929067	
Univariate L1 Distances		
	L1	Mean
Income	8.2*10 ⁻¹⁵	1.8*10 ⁻¹⁴
Male	$7.1*10^{-15}$	9.4*10 ⁻¹⁵
Age	0.02011	0.14194
Education	1.3*10 ⁻¹⁴	1.5*10 ⁻¹³
White	9.4*10 ⁻¹⁵	-8.8*10 ⁻¹⁵
Black	1.7*10 ⁻¹⁵	$2.7*10^{-15}$
Hispanic	2.9*10 ⁻¹⁵	1.5*10 ⁻¹⁵
Asian	4.4*10 ⁻¹⁶	$1.0*10^{-16}$

2. Absentee/Mail Voting CEM Models (Presidential Elections)

Number of Strata	2,333	
Number of Matched Strata	1,249	
	Non-SDR Voting State	SDR Voting State
Full Sample	75,433	11,740
Matched	69,525	11,711
Unmatched	5,908	29
Multivariate L1 Distance	0.3431157	
Univariate L1 Distances		
	L1	Mean
Income	7.3*10 ⁻¹⁴	8.3*10 ⁻¹³
Male	6.5*10 ⁻¹⁴	7.1*10 ⁻¹⁴
Age	0.03365	-0.16259
Education	7.6*10 ⁻¹⁴	2.6*10 ⁻¹³
White	3.1*10 ⁻¹⁴	4.4*10 ⁻¹⁴
Black	$1.4*10^{-14}$	9.0*10 ⁻¹⁵
Hispanic	$1.1*10^{-14}$	3.0*10 ⁻¹⁵
Asian	1.2*10 ⁻¹⁵	8.4*10 ⁻¹⁶

3. SDR Voting CEM Models (Presidential Elections)

	Receipting	Election	Incomo*	Incomo*	En11
	Model	Administration	Voting Lowe	Floation	Interaction
	WIOdel	Model	Voting Laws	Administration	Model
		Widdei	Widdei	Model	Model
Forly Voting Low	0.052	0.062	0.027		0.029
Early voting Law	0.053	0.062	-0.027	0.062	-0.028
	(0.141)	(0.130)	(0.105)	(0.130)	(0.105)
Absentee/Mail	0.160	0.165	0.220	0.165	0.220
Voting Law	(0.065)	(0.068)	(0.0/0)	(0.068)	(0.070)
SDR Law	0.144	0.098	0.089	0.098	0.091
~ ~ .	(0.063)	(0.080)	(0.077)	(0.080)	(0.077)
State Election		0.006	0.006	0.006	0.006
Administration		(0.007)	(0.007)	(0.007)	(0.007)
(VAP-EPI)		ى ىك بى			
Household Income	0.016	0.016***	0.010	0.019	0.008
	(0.004)	(0.005)	(0.010)	(0.017)	(0.020)
Income*Early			0.016		0.017
Voting			(0.010)		(0.010)
Income*Absentee/			-0.010^{*}		-0.010^{*}
Mail Voting			(0.006)		(0.006)
Income*SDR			0.002		0.001
			(0.006)		(0.007)
Income*Election				-0.000	0.000
Administration				(0.000)	(0.000)
Vote Margin	0.008^{*}	0.007^{*}	0.007^{*}	0.007^{*}	0.007^{*}
U	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Southern State	(,	(,			
Missing Income	-0.076**	-0.071*	-0.071^{*}	-0.071*	-0.071*
	(0.037)	(0.039)	(0.039)	(0.039)	(0.039)
Male	0.053***	0.053***	0.053***	0.053***	0.053***
1110010	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Age	0.026***	0.026***	0.026***	0.026***	0.026***
1150	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
Education	0.142^{***}	0.142^{***}	0.142^{***}	0.142^{***}	0.142^{***}
Education	(0.006)	(0.007)	(0.007)	(0.007)	(0.007)
Black	-0.493***	-0.487***	-0.487^{***}	-0.487***	-0.487***
Diack	(0.031)	(0.033)	(0.033)	(0.033)	(0.033)
Hispanic	(0.031) 0 547***	0.533***	0.533***	0.533***	0.533***
Inspanie	-0.347	-0.555	-0.555	(0.043)	(0.043)
Asian	(0.043)	(0.043)	(0.043)	(0.043)	(0.043)
Asiali	-0.804	-0.631	-0.830	-0.831	-0.830
Other Dees	(0.003)	(0.002) 0.172***	(0.001) 0.172***	(0.002)	(0.001)
Other Race	-0.1/3	-0.1/2	-0.1/2	-0.1/2	-0.1/2
Cine a Dentine a	(0.035)	(0.030)	(0.036)	(0.036)	(0.036)
Strong Partisan	0.309	0.310	0.309	0.310	0.309
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Political Interest	0.536	0.536	0.536	0.536	0.536
X 1 C	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Length of	0.158	0.159	0.159	0.159	0.159
Residence	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)

Table D2-1: Sample Treatment Effect of Early Voting on Individual Likelihood of Voting in 2010
and 2014 Midterm Elections, varying State Electoral Systems (CEM Models: CCES)

Table D2-1: Collum	ueu				
Employed	0.054^{**}	0.053^{**}	0.053^{**}	0.053^{**}	0.053^{**}
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
Home Ownership	0.180^{***}	0.176^{***}	0.176^{***}	0.176^{***}	0.176^{***}
	(0.022)	(0.021)	(0.021)	(0.021)	(0.021)
Constant	-4.891***	-5.164***	-5.128***	-5.177***	-5.117***
	(0.451)	(0.396)	(0.388)	(0.437)	(0.406)
Pseudo R^2	0.156	0.156	0.156	0.156	0.156
Pseudo LL	-64073.958	-64063.499	-64060.279	-64063.490	-64060.274
BIC	128379.996	128370.681	128399.053	128382.268	128410.647
Observations	109534	109534	109534	109534	109534

172

Table D2-1: Continued

2010 and 2014 Milder	Baseline	Flection	Income*	Income*	Full
	Model	Administration	Voting Laws	Flection	Interaction
	WIGGET	Model	Model	Administration	Model
		Widdei	Widder	Model	Widder
Absentee/Mail	0.158**	0.163**	0.213**	0.163**	0.213**
Voting Law	(0.065)	(0.068)	(0.075)	(0.068)	(0.074)
Farly Voting Law	0.059	0.067	-0.025	0.067	-0.025
Early Voting Eaw	(0.141)	(0.137)	(0.106)	(0.137)	(0.106)
SDR Law	0.138**	0.096	0.081	0.096	0.082
5DIC Lui	(0.062)	(0.090)	(0.078)	(0.090)	(0.078)
State Election	(0:002)	0.005	0.005	0.005	0.005
Administration		(0.006)	(0.005)	(0.007)	(0.007)
(VAP-EPI)		(0.000)	(0.000)	(0.007)	(0.007)
Household Income	0.015^{***}	0.016***	0.009	0.017	0.007
	(0.004)	(0.005)	(0.010)	(0.016)	(0.020)
Income*Absentee/	(01001)	(01000)	-0.009	(0.010)	-0.009
Mail Voting			(0.006)		(0.006)
Income*Early			0.017		0.017
Voting			(0.011)		(0.010)
Income*SDR			0.003		0.003
			(0.007)		(0.007)
Income*Election			()	-0.000	0.000
Administration				(0.000)	(0.000)
Vote Margin	0.008^{*}	0.007	0.007	0.007	0.007
6	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Southern State	~ /			· · · ·	
Missing Income	-0.079^{**}	-0.075^{*}	-0.075^{*}	-0.075*	-0.075^{*}
C	(0.037)	(0.039)	(0.039)	(0.039)	(0.039)
Male	0.056^{***}	0.056^{***}	0.056^{***}	0.056^{***}	0.056^{***}
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Age	0.026^{***}	0.026^{***}	0.026^{***}	0.026^{***}	0.026^{***}
-	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	0.140^{***}	0.140^{***}	0.140^{***}	0.140^{***}	0.140^{***}
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Black	-0.504***	-0.498^{***}	-0.498***	-0.498***	-0.498***
	(0.030)	(0.032)	(0.032)	(0.032)	(0.032)
Hispanic	-0.545***	-0.533****	-0.533***	-0.533***	-0.533***
	(0.043)	(0.042)	(0.042)	(0.042)	(0.042)
Asian	-0.819***	-0.808****	-0.808***	-0.808***	-0.808****
	(0.059)	(0.059)	(0.059)	(0.059)	(0.059)
Other Race	-0.175***	-0.172***	-0.172***	-0.172***	-0.172***
	(0.033)	(0.034)	(0.034)	(0.034)	(0.034)
Strong Partisan	0.310***	0.310***	0.310***	0.310***	0.310***
	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Political Interest	0.535^{***}	0.535^{***}	0.535***	0.535^{***}	0.535***
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Length of	0.157^{***}	0.158^{***}	0.158^{***}	0.158^{***}	0.158^{***}
Residence	(0.007)	(0.006)	(0.006)	(0.006)	(0.006)

Table D2-2: Sample Treatment Effect of Absentee/Mail Voting Individual Likelihood of Voting in
2010 and 2014 Midterm Elections, varving State Electoral Systems (CEM Models; CCES)

Table D2-2: Continu	ıed				
Employed	0.052^{**}	0.052^{**}	0.052^{**}	0.052^{**}	0.052^{**}
	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Home Ownership	0.180^{***}	0.177^{***}	0.177^{***}	0.177^{***}	0.177^{***}
	(0.023)	(0.022)	(0.022)	(0.022)	(0.022)
Constant	-4.854***	-5.102***	-5.061***	-5.109***	-5.049***
	(0.447)	(0.384)	(0.374)	(0.424)	(0.393)
Pseudo R^2	0.156	0.156	0.156	0.156	0.156
Pseudo LL	-64628.740	-64620.005	-64616.463	-64620.003	-64616.457
BIC	129489.719	129483.862	129511.614	129495.470	129523.215
Observations	110414	110414	110414	110414	110414

	Baseline	Election	Income*	Income*	Full
	Model	Administration	Voting Laws	Flection	Interaction
	Widder	Model	Voting Laws	Administration	Model
		WIOdel	Widder	Model	WIOdel
SDB I aw	0.130**	0.082	0.085	0.082	0.086
SDK Law	(0.062)	(0.082)	(0.083)	(0.082)	(0.080)
Farly Voting Law	(0.002)	(0.000)	0.061	(0.030)	0.061
Larry Voung Law	(0.140)	(0.137)	(0.105)	(0.137)	(0.106)
Absentee/Mail	(0.140) 0.178 ^{**}	(0.137) 0.182**	(0.103) 0.227^{**}	(0.137) 0.182 ^{**}	(0.100) 0.227^{**}
Voting Law	(0.070)	(0.073)	(0.076)	(0.073)	(0.076)
State Election	(0.070)	0.006	0.006	0.007	0.006
Administration		(0.006)	(0.006)	(0.007)	(0.000)
$(V \Delta P_F PI)$		(0.000)	(0.000)	(0.007)	(0.007)
Household Income	0.016***	0.017^{**}	0.008	0.025	0.008
Household meonie	(0.010)	(0.005)	(0.011)	(0.019)	(0.022)
Income*SDR	(0.005)	(0.005)	-0.001	(0.01))	-0.001
meonie BDIX			(0.007)		(0.001)
Income*Early			0.019^*		0.019*
Voting			(0.011)		(0.011)
Income*Absentee/			-0.008		-0.008
Mail Voting			(0.006)		(0.006)
Income*Election			(01000)	-0.000	0.000
Administration				(0.000)	(0.000)
Vote Margin	0.008^{*}	0.007	0.007	0.007	0.007
6	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Southern State	· · · ·			~ /	· · · ·
Missing Income	-0.060*	-0.055	-0.055	-0.055	-0.055
-	(0.035)	(0.038)	(0.038)	(0.038)	(0.038)
Male	0.076^{***}	0.076^{***}	0.076^{***}	0.076^{***}	0.076^{***}
	(0.016)	(0.017)	(0.016)	(0.017)	(0.016)
Age	0.025^{***}	0.025^{***}	0.025^{***}	0.025^{***}	0.025^{***}
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	0.147^{***}	0.147^{***}	0.148^{***}	0.147^{***}	0.148^{***}
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Black	-0.510***	-0.503***	-0.503***	-0.503***	-0.503***
	(0.037)	(0.039)	(0.039)	(0.039)	(0.039)
Hispanic	-0.572***	-0.559***	-0.559***	-0.559^{***}	-0.559***
	(0.056)	(0.053)	(0.053)	(0.052)	(0.053)
Asian	-0.802***	-0.792***	-0.793***	-0.792***	-0.793***
	(0.132)	(0.134)	(0.134)	(0.134)	(0.134)
Other Race	-0.192***	-0.189	-0.189	-0.189	-0.189
~ - ·	(0.045)	(0.046)	(0.046)	(0.046)	(0.046)
Strong Partisan	0.311	0.312	0.312	0.312	0.312
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Political Interest	0.546	0.546	0.546	0.546	0.546
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Length of	0.162	0.163	0.163	0.163	0.163
Residence	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)

Table D2-3: Sample Treatment Effect of SDR Voting on Individual Likelihood of Voting in 2010
and 2014 Midterm Elections, varving State Electoral Systems (CEM Models: CCES)

Table D2-3: Continu	ıed				
Employed	0.058^{**}	0.057^{**}	0.057^{**}	0.057^{**}	0.057^{**}
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)
Home Ownership	0.182^{***}	0.178^{***}	0.178^{***}	0.178^{***}	0.178^{***}
	(0.026)	(0.025)	(0.025)	(0.025)	(0.025)
Constant	-4.856***	-5.144***	-5.095***	-5.188***	-5.093***
	(0.448)	(0.400)	(0.395)	(0.452)	(0.427)
Pseudo R^2	0.144	0.145	0.145	0.145	0.145
Pseudo LL	-62347.647	-62336.660	-62331.992	-62336.565	-62331.992
BIC	124926.567	124916.157	124941.511	124927.530	124953.074
Observations	105201	105201	105201	105201	105201

176

	Baseline	Flection	Income*	Income*	Full
	Model	Administration	Voting Lawe	Flection	Interaction
	WIGUEI	Model	Model	Administration	Model
		WIOdel	WIOdel	Model	WIGGET
Early Voting Law	0.059	0.120	0.061	0.120	0.066
	(0.106)	(0.085)	(0.061)	(0.085)	(0.059)
Absentee/Mail	0.065	0.037	0.050	0.037	(0.037)
Voting Law	(0.065)	(0.037)	(0.050)	(0.037)	(0.040)
SDR Law	(0.005) 0.225**	0.043)	(0.033)	0.043)	(0.031)
SDK Law	(0.225)	(0.050)	(0.041)	(0.055)	(0.023)
State Floction	(0.070)	(0.033)	(0.030)	0.025***	(0.003)
Administration		(0.024)	(0.024)	(0.023)	(0.020)
Auministration (VAD EDI)		(0.003)	(0.003)	(0.003)	(0.003)
(VAF-EFI) Household Income	0.014***	0.015***	0.008	0.020	0.022
Household lifeoille	(0.014)	(0.013)	(0.000)	0.029	(0.033)
In a sur a * E a ula	(0.004)	(0.004)	(0.009)	(0.055)	(0.043)
Income Early			(0.011)		0.010
Voting			(0.010)		(0.011)
Income*Absentee/			-0.002		-0.002
Mail Voting			(0.006)		(0.006)
Income*SDR			0.010		0.013
T 4151 /			(0.006)	0.000	(0.008)
Income*Election				-0.000	-0.000
Administration	0.000	0.004	0.004	(0.001)	(0.001)
Vote Margin	-0.000	-0.004	-0.004	-0.004	-0.004
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Missing Income	-0.122	-0.112	-0.113	-0.112	-0.114
	(0.036)	(0.036)	(0.036)	(0.036)	(0.036)
Male	-0.154	-0.154	-0.154	-0.154	-0.154
	(0.022)	(0.021)	(0.021)	(0.021)	(0.021)
Age	0.017	0.017	0.017	0.017	0.017
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	0.126	0.126	0.126	0.126	0.126
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Black	-0.838	-0.811	-0.811	-0.811	-0.810
	(0.036)	(0.038)	(0.038)	(0.038)	(0.038)
Hispanic	-0.718	-0.675	-0.675	-0.675	-0.674
	(0.037)	(0.035)	(0.035)	(0.035)	(0.035)
Asian	-0.691	-0.660	-0.660	-0.660	-0.659
	(0.086)	(0.088)	(0.088)	(0.088)	(0.088)
Other Race	-0.320	-0.307***	-0.307****	-0.307	-0.307****
	(0.050)	(0.053)	(0.053)	(0.053)	(0.053)
Strong Partisan	0.336***	0.339***	0.339***	0.339***	0.339***
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Political Interest	0.352^{***}	0.354***	0.354^{***}	0.354^{***}	0.354^{***}
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Length of	0.132***	0.133***	0.133***	0.133***	0.133***
Residence	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Employed	0.026	0.021	0.021	0.021	0.021
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)

 Table D2-4: Sample Treatment Effect of Early Voting on Individual Likelihood of Voting in 2008

 and 2012 Presidential Elections, varying State Electoral Systems (CEM Models; CCES)

Table D2-4: Continu	ed				
Home Ownership	0.157^{***}	0.152^{***}	0.151^{***}	0.152^{***}	0.151^{***}
	(0.019)	(0.020)	(0.020)	(0.020)	(0.020)
Constant	-2.419***	-3.422***	-3.382***	-3.496***	-3.513***
	(0.201)	(0.239)	(0.244)	(0.276)	(0.307)
Pseudo R^2	0.112	0.114	0.114	0.114	0.114
Pseudo LL	-50370.880	-50264.515	-50261.858	-50264.341	-50261.405
BIC	100968.878	100767.505	100796.260	100778.514	100806.708
Observations	85473	85473	85473	85473	85473

11 2000 unu 2012 1 10	Realina	Flaction	Incomo*	Incomo*	Full
	Model	A dministration	Voting Lowe	Flootion	Interaction
	model	Auministration Madal	voung Laws	LIECTION A dministration	mieraction Model
		Model	Model	Administration	Model
Abcontoo/Moil	0.070	0.052	0.062	NIOUEI	0.061
Adsentee/Man	(0.079)	(0.032)	(0.065)	(0.032)	(0.051)
Volling Law	(0.038)	(0.040)	(0.000)	(0.040)	(0.039)
Early voting Law	(0.031)	(0.096)	(0.050)	(0.086)	(0.061)
	(0.105) 0.220**	(0.080)	(0.009)	(0.080)	(0.007)
SDR Law	(0.220)	(0.092)	(0.040)	(0.092)	(0.023)
State Election	(0.075)	(0.055)	(0.050)	(0.055)	(0.062)
A durinistration		(0.025)	(0.025)	(0.024)	(0.023)
Administration		(0.005)	(0.005)	(0.005)	(0.005)
(VAP-EPI)	0.015***	0.016***	0.000	0.020	0.026
Household Income	0.015	0.010	0.009	0.030	0.030
T	(0.004)	(0.004)	(0.009)	(0.051)	(0.042)
Income*Absentee/			-0.002		-0.002
Mail Voting			(0.006)		(0.006)
Income*Early			0.010		0.009
Voting			(0.010)		(0.011)
Income*SDR			0.010		0.013
T 4171 /			(0.006)	0.000	(0.007)
Income*Election				-0.000	-0.000
Administration	0.000	0.004	0.004	(0.001)	(0.001)
Vote Margin	-0.000	-0.004	-0.004	-0.004	-0.004
~ 1 ~	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Southern State					
	0.110**	0.100**	0.100**	0.100**	0.110**
Missing Income	-0.118	-0.109	-0.109	-0.109	-0.110
N (1	(0.037)	(0.036)	(0.036)	(0.036)	(0.036)
Male	-0.151	-0.151	-0.151	-0.151	-0.151
	(0.022)	(0.021)	(0.021)	(0.021)	(0.021)
Age	0.017	0.017	0.017	0.017	0.017
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	0.121	0.122	0.122	0.122	0.122
D1 1	(0.008)	(0.007)	(0.007)	(0.00^{7})	(0.007)
Black	-0.855	-0.829	-0.829	-0.829	-0.828
	(0.036)	(0.038)	(0.037)	(0.037)	(0.037)
Hispanic	-0.741	-0.698	-0.698	-0.698	-0.698
	(0.034)	(0.034)	(0.034)	(0.034)	(0.034)
Asıan	-0.665	-0.635	-0.633	-0.635	-0.633
	(0.092)	(0.093)	(0.092)	(0.093)	(0.092)
Other Race	-0.343	-0.331	-0.331	-0.331	-0.331
	(0.061)	(0.064)	(0.064)	(0.064)	(0.064)
Strong Partisan	0.330	0.333	0.333	0.333	0.333
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Political Interest	0.356	0.358	0.357	0.358	0.357
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Length of	0.131***	0.132***	0.132***	0.132***	0.132***
Residence	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)

Table D2-5: Sample Treatment Effect of Absentee/Mail Voting on Individual Likelihood of Voting
in 2008 and 2012 Presidential Elections, varying State Electoral Systems (CEM Models; CCES)

Table D2-5: Continu	ıed				
Employed	0.017	0.013	0.012	0.012	0.012
	(0.018)	(0.019)	(0.019)	(0.019)	(0.019)
Home Ownership	0.156^{***}	0.151^{***}	0.151^{***}	0.151^{***}	0.151***
	(0.020)	(0.021)	(0.021)	(0.021)	(0.021)
Constant	-2.382***	-3.340***	-3.301***	-3.419***	-3.445***
	(0.200)	(0.239)	(0.242)	(0.278)	(0.309)
Pseudo R^2	0.112	0.114	0.114	0.114	0.114
Pseudo LL	-50834.049	-50736.676	-50734.243	-50736.478	-50733.701
BIC	101895.392	101712.011	101741.241	101722.981	101751.522
Observations	86229	86229	86229	86229	86229

180

	Baseline Model	line Election Income* del Administration Voting Laws	Income* Voting Laws	Income* Election	Full Interaction
		Model	Model	Administration Model	Model
SDR Law	0.223**	0.092	0.056	0.092	0.047
	(0.074)	(0.056)	(0.059)	(0.056)	(0.062)
Early Voting Law	0.077	0.138	0.081	0.138	0.084
, C	(0.108)	(0.090)	(0.062)	(0.090)	(0.061)
Absentee/Mail	0.058	0.028	0.064	0.028	0.063
/oting Law	(0.062)	(0.044)	(0.053)	(0.044)	(0.053)
State Election		0.023***	0.023***	0.024^{***}	0.025***
Administration		(0.005)	(0.005)	(0.005)	(0.005)
VAP-EPI)					
Iousehold Income	0.020^{***}	0.021^{***}	0.016^{*}	0.029	0.031
	(0.005)	(0.004)	(0.010)	(0.029)	(0.038)
ncome*SDR	. ,	. ,	0.007	. ,	0.009
			(0.007)		(0.007)
ncome*Early			0.011		0.010
Voting			(0.012)		(0.012)
ncome*Absentee/			-0.007		-0.007
Aail Voting			(0.007)		(0.007)
ncome*Election				-0.000	-0.000
Administration				(0.000)	(0.001)
ote Margin	-0.001	-0.004	-0.004	-0.004	-0.004
-	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
bouthern State					
Aissing Income	-0.085*	-0.075*	-0.075*	-0.076*	-0.076*
	(0.045)	(0.044)	(0.044)	(0.044)	(0.044)
Aale	-0.148***	-0.148***	-0.148***	-0.148^{***}	-0.148***
	(0.021)	(0.020)	(0.020)	(0.020)	(0.020)
Age	0.017^{***}	0.017^{***}	0.017^{***}	0.017^{***}	0.017^{***}
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	0.132***	0.133***	0.133***	0.133***	0.133***
	(0.010)	(0.010)	(0.009)	(0.010)	(0.009)
Black	-0.819***	-0.788^{***}	-0.788^{***}	-0.788^{***}	-0.788^{***}
	(0.043)	(0.043)	(0.044)	(0.044)	(0.044)
Hispanic	-0.779***	-0.738***	-0.738***	-0.738***	-0.738***
	(0.049)	(0.049)	(0.049)	(0.049)	(0.049)
Asian	-0.888***	-0.859***	-0.858***	-0.858***	-0.858***
	(0.220)	(0.230)	(0.230)	(0.230)	(0.230)
Other Race	-0.357***	-0.347***	-0.347***	-0.347***	-0.348***
	(0.053)	(0.054)	(0.054)	(0.054)	(0.054)
trong Partisan	0.354^{***}	0.357^{***}	0.357^{***}	0.357^{***}	0.357^{***}
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
olitical Interest	0.366^{***}	0.367^{***}	0.367^{***}	0.367^{***}	0.367^{***}
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
ength of	0.140^{***}	0.140^{***}	0.140^{***}	0.140^{***}	0.140^{***}
Residence	(0.008)	(0.007)	(0.007)	(0.007)	(0.007)

Table D2-6: Sample Treatment Effect of SDR Voting on Individual Likelihood of Voting in 200)8
and 2012 Presidential Elections, varying State Electoral Systems (CEM Models: CCES)	

Table D2-6: Continu	ued				
Employed	0.032	0.027	0.027	0.027	0.027
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)
Home Ownership	0.135***	0.131***	0.131***	0.131***	0.131***
	(0.021)	(0.022)	(0.022)	(0.022)	(0.022)
Constant	-2.501***	-3.496***	-3.468***	-3.539***	-3.547***
	(0.213)	(0.256)	(0.258)	(0.266)	(0.281)
Pseudo R^2	0.104	0.106	0.106	0.106	0.106
Pseudo LL	-47971.317	-47874.838	-47873.497	-47874.784	-47873.350
BIC	96168.735	95987.084	96018.318	95998.280	96029.328
Observations	81236	81236	81236	81236	81236

182

Chapter 3 CEM Models

Treatment and control groups matched on income, gender, age (cut points of 17.5, 29.5, 49.5, and 64.5 years), education, white, black, Hispanic, and Asian variables.

Number of Strata	233	
Number of Matched Strata	207	
	Non-Farly Voting State	Farly Voting State
E-II Commis	C 475	Larry voting State
Full Sample	0,475	10,300
Matched	6,470	16,201
Unmatched	5	105
Multivariate L1 Distance	0.17164251	
Univariate L1 Distances		
	L1	Mean
Male	9.5*10 ⁻¹⁵	$-1.3*10^{-14}$
Age	0.03372	0.03507
Education	$1.7*10^{-14}$	-5.3*10 ⁻¹⁴
White	5.8*10 ⁻¹⁵	5.6*10 ⁻¹⁶
Black	3.4*10 ⁻¹⁵	-6.0*10 ⁻¹⁵
Hispanic	2.2*10 ⁻¹⁵	-3.7*10 ⁻¹⁵
Asian	5.3*10 ⁻¹⁶	-5.0*10 ⁻¹⁶

1. Early Voting CEM Models (Midterm Elections)

Number of Strata	233	
Number of Matched Strata	218	
	Non-Absentee/Mail Voting State	Absentee/Mail Voting State
Full Sample	9,855	12,926
Matched	9,848	12,908
Unmatched	7	18
Multivariate L1 Distance	0.15554014	
Univariate L1 Distances		
	L1	Mean
Male	5.5*10 ⁻¹⁵	9.5*10 ⁻¹⁵
Age	0.03614	0.02261
Education	6.8*10 ⁻¹⁵	2.9*10 ⁻¹⁴
White	7.2*10 ⁻¹⁵	-9.3*10 ⁻¹⁵
Black	6.7*10 ⁻¹⁵	9.4*10 ⁻¹⁶
Hispanic	1.2*10 ⁻¹⁵	1.2*10 ⁻¹⁵
Asian	8.2*10 ⁻¹⁶	1.6*10 ⁻¹⁶

2. Absentee/Mail Voting CEM Models (Midterm Elections)

CEM Model Fit Statistics

Number of Strata	233	
Number of Matched Strata	177	
	Non-SDR Voting State	SDR Voting State
Full Sample	19,775	3,006
Matched	19,308	3,006
Unmatched	467	0
Multivariate L1 Distance	0.2043678	
Univariate L1 Distances		
	L1	Mean
Male	5.4*10 ⁻¹⁵	$-4.9*10^{-15}$
Age	0.05367	0.21981
Education	1.6*10 ⁻¹⁴	-1.2*10 ⁻¹³
White	6.4*10 ⁻¹⁵	4.4*10 ⁻¹⁵
Black	1.7*10 ⁻¹⁵	-2.9*10 ⁻¹⁵
Hispanic	3.7*10 ⁻¹⁵	-6.0*10 ⁻¹⁶
Asian	4.9*10 ⁻¹⁶	$-2.0*10^{-16}$

3. SDR Voting CEM Models (Midterm Elections)

Number of Strata	235	
Number of Matched Strata	198	
	Non-Early Voting State	Early Voting State
Full Sample	5,598	13,195
Matched	5,592	13,093
Unmatched	6	102
Multivariate L1 Distance	0.17374161	
Univariate L1 Distances		
	L1	Mean
Male	5.7*10 ⁻¹⁵	$-4.0*10^{-15}$
Age	0.02976	0.09927
Education	3.5*10 ⁻¹⁵	-3.6*10 ⁻¹⁴
White	2.8*10 ⁻¹⁵	-3.4*10 ⁻¹⁵
Black	2.8*10 ⁻¹⁵	-1.3*10 ⁻¹⁵
Hispanic	$1.7*10^{-15}$	-8.9*10 ⁻¹⁶
Asian	4.9*10 ⁻¹⁶	-8.3*10 ⁻¹⁷

1. Early Voting CEM Models (Presidential Elections)

Number of Strata	235	
Number of Matched Strata	208	
	Non-Absentee/Mail Voting State	Absentee/Mail Voting State
Full Sample	8,642	10,151
Matched	8,633	10,107
Unmatched	9	44
Multivariate L1 Distance	0.1606695	
Univariate L1 Distances		
	L1	Mean
Male	5.2*10 ⁻¹⁵	7.3*10 ⁻¹⁵
Age	0.02331	0.10573
Education	8.7*10 ⁻¹⁵	9.1*10 ⁻¹⁴
White	4.5*10 ⁻¹⁵	-2.0*10 ⁻¹⁵
Black	$4.2*10^{-15}$	3.0*10 ⁻¹⁵
Hispanic	$4.2*10^{-15}$	2.2*10 ⁻¹⁵
Asian	1.3*10 ⁻¹⁶	2.7*10 ⁻¹⁶

2. Absentee/Mail Voting CEM Models (Presidential Elections)

Number of Strata	235	
Number of Matched Strata	160	
	Non-SDR Voting State	SDR Voting State
Full Sample	16,070	2,723
Matched	15,562	2,723
Unmatched	508	0
Multivariate L1 Distance	0.19885409	
Univariate L1 Distances		
	L1	Mean
Male	8.0*10 ⁻¹⁵	2.8*10 ⁻¹⁶
Age	0.04751	-0.00902
Education	1.6*10 ⁻¹⁴	-3.3*10 ⁻¹⁴
White	7.3*10 ⁻¹⁵	-9.4*10 ⁻¹⁵
Black	7.3*10 ⁻¹⁵	1.7*10 ⁻¹⁵
Hispanic	1.2*10 ⁻¹⁵	3.9*10 ⁻¹⁶
Asian	4.5*10 ⁻¹⁶	1.3*10 ⁻¹⁶

3. SDR Voting CEM Models (Presidential Elections)

	Baseline	Election
		Administratio
		n
Early Voting Law	0.009	0.028
	(0.109)	(0.105)
State Election		0.011
Administration		(0.008)
(VAP-EPI)		
Absentee/Mail	0.262^{***}	0.264^{**}
Voting Law	(0.074)	(0.083)
SDR Law	0.100	0.019
	(0.066)	(0.076)
Political	0.004	0.004
Competition	(0.003)	(0.003)
Male	0.068^{**}	0.069^{**}
	(0.032)	(0.032)
Age	0.027^{***}	0.027^{***}
-	(0.001)	(0.001)
Education	0.211***	0.212^{***}
	(0.011)	(0.011)
Black	-0.394***	-0.381***
	(0.047)	(0.049)
Hispanic	-0.572***	-0.542***
*	(0.093)	(0.087)
Asian	-0.839**	-0.812**
	(0.287)	(0.281)
Other Race	-0.127	-0.121
	(0.083)	(0.084)
Strong Partisan	0.396***	0.397^{***}
-	(0.036)	(0.036)
Political Interest	0.524^{***}	0.524^{***}
	(0.019)	(0.019)
Length of	0.168^{***}	0.169***
Residence	(0.014)	(0.014)
Employed	0.085^{**}	0.083^*
	(0.043)	(0.043)
Home Ownership	0.126**	0.124**
1	(0.047)	(0.049)
Constant	-4.894***	-5.406***
	(0.298)	(0.465)
Pseudo R^2	0.169	0.170
Pseudo LL	-12475.697	-12469.179
BIC	25131.913	25128.906
Observations	22,671	22.671

 Table D3-1: Sample Treatment Effect of Early
 Voting on Poor Individual Turnout in 2010 and 2014 Elections, varying State Electoral Systems (CEM Models; CCES)

The estimates are logistic regression coefficients.

	Baseline	Election
		Administratio
		n
Absentee/Mail	0.239^{**}	0.242^{**}
Voting Law	(0.075)	(0.084)
Early Voting Law	0.022	0.039
	(0.108)	(0.105)
SDR Law	0.097	0.023
	(0.066)	(0.079)
State Election		0.010
Administration		(0.008)
(VAP-EPI)		
Political	0.004	0.003
Competition	(0.003)	(0.003)
Male	0.092^{**}	0.093**
	(0.036)	(0.036)
Age	0.027^{***}	0.027^{***}
C	(0.001)	(0.001)
Education	0.208^{***}	0.209^{***}
	(0.012)	(0.012)
Black	-0.376***	-0.364***
	(0.050)	(0.052)
Hispanic	-0.535***	-0.508***
*	(0.096)	(0.090)
Asian	-0.928**	-0.902**
	(0.339)	(0.331)
Other Race	-0.132	-0.127
	(0.091)	(0.092)
Strong Partisan	0.389***	0.390^{***}
C	(0.034)	(0.034)
Political Interest	0.520^{***}	0.520^{***}
	(0.019)	(0.019)
Length of	0.168^{***}	0.169^{***}
Residence	(0.015)	(0.014)
Employed	0.074^{*}	0.073^{*}
	(0.040)	(0.040)
Home Ownership	0.128^{**}	0.127**
*	(0.046)	(0.047)
Constant	-4.867***	-5.334***
	(0.298)	(0.461)
Pseudo R^2	0.169	0.169
Pseudo LL	-12572.065	-12566.577
BIC	25324.717	25323.774
Observations	22.756	22,756

Table D3-2: Sample Treatment Effect of Absentee/Mail Voting on Poor Individual Turnout in 2010 and 2014 Elections, varying State Electoral Systems (CEM Models; CCES)

The estimates are logistic regression coefficients.

	Baseline	Election
		Administratio
		n
SDR Law	0.094	-0.002
	(0.069)	(0.081)
Early Voting Law	-0.033	-0.008
	(0.117)	(0.114)
Absentee/Mail	0.276^{***}	0.275^{**}
Voting Law	(0.077)	(0.088)
State Election		0.013
Administration		(0.008)
(VAP-EPI)		
Political	0.005	0.004
Competition	(0.003)	(0.003)
Male	0.114^{***}	0.115^{***}
	(0.032)	(0.032)
Age	0.027^{***}	0.027^{***}
	(0.001)	(0.001)
Education	0.213^{***}	0.214^{***}
	(0.013)	(0.013)
Black	-0.369***	-0.353***
	(0.051)	(0.053)
Hispanic	-0.605***	-0.571***
	(0.100)	(0.097)
Asian	-0.536	-0.522
	(0.331)	(0.339)
Other Race	-0.134	-0.133
	(0.111)	(0.112)
Strong Partisan	0.398***	0.400^{***}
	(0.040)	(0.039)
Political Interest	0.525^{***}	0.525^{***}
	(0.019)	(0.019)
Length of	0.164***	0.164^{***}
Residence	(0.014)	(0.014)
Employed	0.081^{**}	0.080^{**}
	(0.038)	(0.038)
Home Ownership	0.136**	0.134**
	(0.049)	(0.051)
Constant	-4.894***	-5.523***
	(0.306)	(0.483)
Pseudo R^2	0.156	0.156
Pseudo LL	-12693.814	-12684.143
BIC	25567.861	25558.533
Observations	22.314	22.314

Table D3-3: Sample Treatment Effect of SDR Voting on Poor Individual Turnout in 2010 and 2014 **Elections, varying State Electoral Systems** (CEM Models; CCES)

The estimates are logistic regression coefficients.

	Baseline	Election
		Administration
Early Voting Law	0.039	0.098
	(0.095)	(0.074)
Absentee/Mail	0.101	0.071
Voting Law	(0.083)	(0.063)
SDR Law	0.140^{*}	0.008
	(0.082)	(0.063)
State Election		0.024^{***}
Administration		(0.005)
(VAP-EPI)		
Political	0.002	-0.002
Competition	(0.003)	(0.003)
Male	-0.148***	-0.148***
	(0.037)	(0.036)
Age	0.019^{***}	0.019^{***}
-	(0.001)	(0.001)
Education	0.212^{***}	0.212^{***}
	(0.018)	(0.018)
Black	-0.624***	-0.586***
	(0.059)	(0.059)
Hispanic	-0.617***	-0.566^{***}
*	(0.064)	(0.064)
Asian	-0.749***	-0.710***
	(0.151)	(0.154)
Other Race	-0.283***	-0.270***
	(0.079)	(0.079)
Strong Partisan	0.479^{***}	0.482^{***}
-	(0.029)	(0.030)
Political Interest	0.348^{***}	0.348^{***}
	(0.023)	(0.023)
Length of	0.135^{***}	0.137^{***}
Residence	(0.011)	(0.010)
Employed	0.100^{**}	0.094^{**}
	(0.036)	(0.036)
Home Ownership	0.159^{***}	0.162^{***}
	(0.041)	(0.042)
Constant	-2.968***	-3.959***
	(0.253)	(0.300)
Pseudo R^2	0.124	0.126
Pseudo LL	-11332.868	-11308.636
BIC	22842.774	22804.147
Observations	18,685	18,685

 Table D3-4: Sample Treatment Effect of Early Voting
 on Poor Individual Turnout in 2008 and 2012 **Elections, varying State Electoral Systems** (CEM Models; CCES)

The estimates are logistic regression coefficients.

`	Baseline	Election
		Administration
Absentee/Mail	0.104	0.073
Voting Law	(0.087)	(0.066)
Early Voting Law	0.054	0.114
	(0.099)	(0.076)
SDR Law	0.130	-0.006
	(0.082)	(0.063)
State Election		0.024^{***}
Administration		(0.005)
(VAP-EPI)		
Political	0.002	-0.002
Competition	(0.003)	(0.003)
Male	-0.151***	-0.151***
	(0.038)	(0.037)
Age	0.018***	0.018^{***}
C	(0.001)	(0.001)
Education	0.208^{***}	0.209^{***}
	(0.018)	(0.018)
Black	-0.636***	-0.597***
	(0.059)	(0.059)
Hispanic	-0.669***	-0.616***
F	(0.053)	(0.054)
Asian	-0.741***	-0.705***
	(0.174)	(0.172)
Other Race	-0.337***	-0.322***
	(0.096)	(0.096)
Strong Partisan	0.462***	0.465^{***}
6	(0.031)	(0.031)
Political Interest	0.358***	0.358***
	(0.022)	(0.022)
Length of	0.135***	0.136***
Residence	(0.011)	(0.011)
Employed	0.086**	0.079**
p	(0.038)	(0.039)
Home Ownership	0.154***	0.157***
r	(0.043)	(0.043)
Constant	-2.963***	-3.979***
	(0.257)	(0.311)
Pseudo R^2	0.125	0.127
Pseudo LL	-11359 443	-11333 917
BIC	22895 977	22854 764
Observations	18,740	18,740

Table D3-5: Sample Treatment Effect of Absentee/Mail Voting on Poor Individual Turnout in 2008 and 2012 Elections, varying State Electoral Systems (CEM Models; CCES)

The estimates are logistic regression coefficients.

`	Baseline	Election
		Administration
SDR Law	0.139*	-0.002
	(0.081)	(0.063)
Early Voting Law	0.056	0.121
	(0.100)	(0.078)
Absentee/Mail	0.098	0.064
Voting Law	(0.078)	(0.060)
State Election		0.025^{***}
Administration		(0.005)
(VAP-EPI)		
Political	0.001	-0.002
Competition	(0.003)	(0.003)
Male	-0.118**	-0.120**
	(0.041)	(0.040)
Age	0.019***	0.019***
-	(0.001)	(0.001)
Education	0.220^{***}	0.220^{***}
	(0.016)	(0.017)
Black	-0.628***	-0.586***
	(0.069)	(0.067)
Hispanic	-0.746***	-0.693***
-	(0.087)	(0.083)
Asian	-0.567**	-0.522**
	(0.209)	(0.207)
Other Race	-0.352***	-0.338***
	(0.090)	(0.092)
Strong Partisan	0.469^{***}	0.471^{***}
-	(0.029)	(0.029)
Political Interest	0.371^{***}	0.372^{***}
	(0.023)	(0.023)
Length of	0.141^{***}	0.142^{***}
Residence	(0.013)	(0.012)
Employed	0.114^{**}	0.108^{**}
	(0.042)	(0.042)
Home Ownership	0.147^{***}	0.150^{***}
	(0.039)	(0.039)
Constant	-3.035***	-4.101***
	(0.272)	(0.323)
Pseudo R^2	0.119	0.121
Pseudo LL	-11145.060	-11118.145
BIC	22466.769	22422.753
Observations	18,285	18,285

Table D3-6: Sample Treatment Effect of SDR Voting on Poor Individual Turnout in 2008 and 2012 Elections, varying State Electoral Systems (CEM Models; CCES)

The estimates are logistic regression coefficients.

Chapter 4 CEM Models

Treatment and control groups matched on income, gender, age (cut points of 17.5, 29.5, 49.5, and 64.5 years), education, white, black, Hispanic, and Asian variables.

CEM Model Fit Statistics

Number of Strata	2,462	
Number of Matched Strata	2018	
	Non-Early Voting State	Early Voting State
Full Sample	47,883	117,719
Matched	47,819	116,312
Unmatched	64	1,407
Multivariate L1 Distance	0.28140267	
Univariate L1 Distances		
	L1	Mean
Income	5.7*10 ⁻¹⁵	5.4*10 ⁻¹⁴
Male	7.6*10 ⁻¹⁵	-7.1*10 ⁻¹⁵
Age	0.02183	0.11959
Education	6.1*10 ⁻¹⁵	-3*10 ⁻¹⁴
White	5.6*10 ⁻¹⁵	-1*10 ⁻¹⁴
Black	1.4*10 ⁻¹⁵	$-1.4*10^{-14}$
Hispanic	2.1*10 ⁻¹⁵	$-5.7*10^{-16}$
Asian	1.7*10 ⁻¹⁵	-8.3*10 ⁻¹⁷

1. Early Voting CEM Models

Number of Strata	2,462	
Number of Matched Strata	2,150	
	Non-Absentee/Mail Voting State	Absentee/Mail Voting State
Full Sample	72,246	93,356
Matched	72,119	92,873
Unmatched	127	483
Multivariate L1 Distance	0.25725671	
Univariate L1 Distances		
	L1	Mean
Income	7.7*10 ⁻¹⁵	4.8*10 ⁻¹⁴
Male	1.2*10 ⁻¹⁴	1.4*10 ⁻¹⁴
Age	0.01937	0.11725
Education	9.6*10 ⁻¹⁵	4.8*10 ⁻¹⁵
White	2.4*10 ⁻¹⁴	-3.8*10 ⁻¹⁴
Black	2*10 ⁻¹⁴	1.5*10 ⁻¹⁴
Hispanic	2.1*10 ⁻¹⁴	$-1.7*10^{-16}$
Asian	4.6*10 ⁻¹⁵	-1.7*10 ⁻¹⁷

2. No-Excuse Absentee/Mail Voting CEM Models

Number of Strata	2,462	
Number of Matched Strata	1,588	
	Non-SDR State	SDR State
Full Sample	144,443	21,159
Matched	138,211	21,141
Unmatched	6,232	18
Multivariate L1 Distance	0.31487745	
Univariate L1 Distances		
	L1	Mean
Income	9.6*10 ⁻¹⁴	9.2*10 ⁻¹³
Male	7.2*10 ⁻¹⁴	5.5*10 ⁻¹⁴
Age	0.02693	-0.02343
Education	1.13*10 ⁻¹³	$1.7*10^{-13}$
White	$4.8*10^{-14}$	6*10 ⁻¹⁴
Black	3.3*10 ⁻¹⁴	$1.3*10^{-14}$
Hispanic	1.5*10 ⁻¹⁴	5.3*10 ⁻¹⁵
Asian	5*10 ⁻¹⁵	1.6*10 ⁻¹⁵

3. SDR Voting CEM Models

, , , , , , , , , , , , , , , , , , ,	Baseline	Election
		Administration
Early Voting Law	-0.114	-0.106
	(0.083)	(0.085)
Absentee/Mail	0.131	0.136^{*}
Voting Law	(0.082)	(0.079)
SDR Law	0.184^{**}	0.140^{**}
	(0.061)	(0.064)
State Election		0.005
Administration		(0.003)
(VAP-EPI)	ىك ىك	ى ن ى ىك
Income	0.051***	0.051***
	(0.004)	(0.004)
Political	0.007^{***}	0.006^{**}
Competition	(0.002)	(0.002)
Missing Income	0.343***	0.347***
	(0.031)	(0.032)
Male	-0.035***	-0.035***
	(0.014)	(0.014)
Age	0.026^{***}	0.026^{***}
	(0.001)	(0.001)
Education	0.161^{***}	0.162^{***}
	(0.006)	(0.006)
Black	-0.327***	-0.322***
	(0.030)	(0.032)
Hispanic	-0.473***	-0.461***
-	(0.052)	(0.054)
Asian	-0.584***	-0.572***
	(0.055)	(0.055)
Other Race	0.012	0.015
	(0.037)	(0.037)
Strong Partisan	0.226^{***}	0.226^{***}
	(0.017)	(0.017)
Political Interest	0.422^{***}	0.422^{***}
	(0.012)	(0.012)
Length of	0.136^{***}	0.136***
Residence	(0.007)	(0.007)
Employed	-0.090***	-0.091***
	(0.015)	(0.015)
Home Ownership	0.313^{***}	0.309^{***}
~	(0.022)	(0.023)
Constant	-4.026***	-4.284***
	(0.183)	(0.251)
Pseudo R^2	0.161	0.161
Pseudo LL	-63755.132	-63745.995
BIC	127742.461	127735.796
Observations	110177	110177

Table D4-1: Early Voting Sample TreatmentEffect on Campaign Contact in 2010 and 2014Elections (CEM Models; CCES)

Standard errors are clustered by state in parentheses.

Table D4-1: ContinuedThe estimates are logistic regression coefficients.Fixed year effect included for 2014.* p < 0.10, ** p < 0.05, *** p < 0.001

Elections (CEM Mod	$\frac{1}{1}$	
	Baseline	Election
		Administration
Early Voting Law	-0.173	-0.128
	(0.120)	(0.092)
Absentee/Mail	0.170	0.154*
Voting Law	(0.112)	(0.093)
SDR I aw	0.271^{***}	0.136
SDR Law	(0.080)	(0.083)
State Election	(0.000)	(0.083)
		0.021
Administration		(0.008)
(VAP-EPI)	***	***
Income	0.053	0.054
	(0.005)	(0.005)
Political	0.015^{***}	0.011^{***}
Competition	(0.003)	(0.003)
Missing Income	0.407^{***}	0.415***
0	(0.040)	(0.039)
Male	-0.109***	-0.106***
Whate	(0.020)	(0.020)
٨ ٥٥	(0.020)	(0.020)
Age	0.028	(0.029
	(0.001)	(0.001)
Education	0.1/6	0.1//
	(0.009)	(0.009)
Black	-1.048	-1.024
	(0.041)	(0.041)
Hispanic	-0.907***	-0.864***
	(0.071)	(0.073)
Asian	-0.564***	-0.534***
	(0.110)	(0.116)
Other Race	-0.062	-0.045
other race	(0.062)	(0.066)
Strong Partisan	0.000)	(0.000)
Strong I artisan	(0.201)	(0.207)
Dell'd's al Indensed	(0.019)	(0.019)
Political Interest	0.392	0.394
x 1 0	(0.018)	(0.018)
Length of	0.103	0.104
Residence	(0.011)	(0.011)
Employed	-0.047***	-0.051
	(0.021)	(0.021)
Home Ownership	0.225^{***}	0.221^{***}
*	(0.031)	(0.031)
Constant	-4.446***	-5.369***
	(0.263)	(0.471)
Pseudo R^2	0.182	0.184
Decudo I I	20004 022	20055 601
r scuuo LL	-30004.932	-27733.071
BIC	00210.880	60129.300
Observations	53954	53954

Table D4-2: Early Voting Sample TreatmentEffect on Campaign Contact in 2012Elections (CEM Models: CCES)

Standard errors are clustered by state in parentheses. The estimates

Table D4-2: Continuedare logistic regression coefficients. * p < 0.10, *** p < 0.05, **** p < 0.001
	Baseline	Election
	Dubenne	Administration
Absentee/Mail	0.137*	0.141*
Voting Law	(0.079)	(0.076)
Early Voting Law	-0.124	-0.117
, <u>8</u>	(0.081)	(0.083)
SDR Law	0.180**	0.142**
	(0.062)	(0.065)
State Election		0.005
Administration		(0.003)
(VAP-EPI)		
Income	0.051^{***}	0.052^{***}
	(0.004)	(0.004)
Political	0.006^{***}	0.006**
Competition	(0.002)	(0.002)
Missing Income	0.356***	0.360***
C	(0.030)	(0.031)
Male	-0.034**	-0.033***
	(0.014)	(0.014)
Age	0.025^{***}	0.025^{***}
-	(0.001)	(0.001)
Education	0.158^{***}	0.158^{***}
	(0.005)	(0.005)
Black	-0.331***	-0.326***
	(0.030)	(0.031)
Hispanic	-0.480***	-0.470***
	(0.043)	(0.045)
Asian	-0.489***	-0.478***
	(0.073)	(0.072)
Other Race	0.010	0.013
	(0.033)	(0.033)
Strong Partisan	0.224^{***}	0.225^{***}
	(0.016)	(0.016)
Political Interest	0.423***	0.423***
	(0.013)	(0.013)
Length of	0.136***	0.136***
Residence	(0.007)	(0.007)
Employed	-0.090***	-0.091***
	(0.015)	(0.015)
Home Ownership	0.312***	0.309***
	(0.022)	(0.022)
Constant	-3.994***	-4.221***
2	(0.182)	(0.253)
Pseudo R^2	0.160	0.160
Pseudo LL	-64141.720	-64134.596
BIC	128515.741	128513.109
Observations	110754	110754

Table D4-3: Absentee/Mail VotingSample Treatment Effect on Campaign Contactin 2010 and 2014 Elections (CEM Models; CCES)

Standard errors are clustered by state in parentheses. The estimates

Table D4-3: Continued

are logistic regression coefficients. Fixed year effect included for 2014. p < 0.10, p < 0.05, p < 0.001

	Baseline	Election
	200001110	Administration
Absentee/Mail	0.158	0.143
Voting Law	(0.108)	(0.089)
Early Voting Law	-0.162	-0.119
Luity voung Lui	(0.115)	(0.088)
Absentee/Mail	0.158	0 143
Voting Law	(0.108)	(0.089)
SDR L aw	0.100)	0.130*
SDR Law	(0.080)	(0.082)
State Floation	(0.000)	(0.082) 0.021**
A dministration		(0.021)
$(\mathbf{V} \wedge \mathbf{D} \in \mathbf{D})$		(0.008)
(VAF-LFI)	0.053***	0.054***
licome	(0.053)	(0.004)
Dolitical	(0.003)	(0.003)
Political	(0.014)	0.011
Competition	(0.005)	(0.003)
Missing income	0.408	0.414
M-1-	(0.044)	(0.042)
Male	-0.108	-0.105
	(0.020)	(0.020)
Age	0.028	0.029
	(0.001)	(0.001)
Education	0.176	0.177
	(0.009)	(0.008)
Black	-1.054	-1.030
	(0.040)	(0.041)
Hispanic	-0.906	-0.862
	(0.058)	(0.059)
Asian	-0.600	-0.570
	(0.121)	(0.125)
Other Race	-0.078	-0.063
	(0.061)	(0.061)
Strong Partisan	0.204***	0.209***
	(0.021)	(0.021)
Political Interest	0.392***	0.393***
	(0.018)	(0.018)
Length of	0.104^{***}	0.105***
Residence	(0.011)	(0.011)
Employed	-0.044^{*}	-0.049**
	(0.024)	(0.023)
Home Ownership	0.217^{***}	0.214^{***}
-	(0.030)	(0.031)
Constant	-4.409***	-5.296***
	(0.249)	(0.458)

Table D4-4: Absentee/Mail VotingSample Treatment Effect on Campaign Contactin 2012 Elections (CEM Models; CCES)

Table D4-4: (Continued
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Table D4-4. Commueu				
Pseudo R^2	0.181	0.182		
Pseudo LL	-30145.797	-30099.728		
BIC	60498.716	60417.478		
Observations	54238	54238		

Standard errors are clustered by state in parentheses. The estimates are logistic regression coefficients. * p < 0.10, ** p < 0.05, *** p < 0.001

	Baseline	Election
		Administration
SDR Law	0.191**	0.152**
	(0.062)	(0.066)
Early Voting Law	-0.130	-0.122
	(0.090)	(0.092)
Absentee/Mail	0.136	0.139*
Voting Law	(0.086)	(0.084)
State Election	(01000)	0.005
Administration		(0,004)
(VAP-EPI)		(0.001)
Income	0.052^{***}	0.052^{***}
meonie	(0.002)	(0.004)
Political	0.006**	0.006**
Competition	(0.002)	(0,002)
Missing Income	(0.002)	(0.002) 0 374 ^{***}
winsping meome	(0.028)	(0.029)
Male	-0.019	-0.019
Iviale	(0.012)	(0.01)
Age	(0.01+) 0.025 ^{***}	0.025***
1150	(0.025)	(0.023)
Education	0.167^{***}	0.167^{***}
Laucation	(0.006)	(0.006)
Black	-0.342^{***}	-0.336***
Diack	(0.031)	(0.033)
Hispanic	-0.467^{***}	-0.456^{***}
Inspane	(0.044)	(0.045)
Asian	(0.044)	(0.0+3)
Asian	(0.065)	(0.074)
Other Race	-0.006	-0.007
Other Race	(0.038)	(0.038)
Strong Partisan	(0.038) 0.222^{***}	(0.038) 0.223^{***}
Strong I artisan	(0.017)	(0.017)
Political Interact	(0.017) 0.425 ^{***}	(0.017) 0.425***
I ontical interest	(0.423)	(0.423)
Length of	(0.010) 0.144***	(0.010) 0 144***
Residence	(0.000)	(0, 0, 0, 0, 0)
Employed	_0 000	
Linpioyeu	-0.077	-0.100
Home Ownership	(0.010) 0.300***	(0.010) 0.207***
nome Ownership	(0.000)	0.297
Constant	(0.023)	(0.024) 4 264 ^{***}
Constant	-4.032	-4.204
	(0.182)	(0.209)

Table D4-5: SDR Sample TreatmentEffect on Campaign Contactin 2010 and 2014 Elections (CEM Models; CCES)

Table D4-5: Continued				
Pseudo R^2	0.150	0.150		
Pseudo LL	-62619.164	-62612.187		
BIC	125469.953	125467.580		
Observations	107071	107071		

Standard errors are clustered by state in parentheses. The estimates are logistic regression coefficients.

Fixed year effect included for 2014. * p < 0.10, *** p < 0.05, **** p < 0.001

	Baseline	Election
		Administratio
		n
DR Law	0.273^{***}	0.134
	(0.082)	(0.083)
arly Voting Law	-0.180	-0.135
	(0.122)	(0.097)
bsentee/Mail	0.161	0.143
oting Law	(0.114)	(0.094)
tate Election		0.022^{**}
dministration		(0.008)
AP-EPI)		. ,
come	0.057^{***}	0.058^{***}
	(0.005)	(0.005)
olitical	0.015^{***}	0.011^{***}
ompetition	(0.003)	(0.003)
fissing Income	0.424^{***}	0.432^{***}
-	(0.039)	(0.037)
Iale	-0.084***	-0.082***
	(0.023)	(0.023)
ge	0.028^{***}	0.029***
0	(0.001)	(0.001)
ducation	0.181***	0.182***
	(0.010)	(0.010)
lack	-1.027***	-0.999****
	(0.038)	(0.040)
ispanic	-0.896***	-0.847***
*	(0.069)	(0.072)
sian	-0.618**	-0.589**
	(0.236)	(0.234)
ther Race	-0.008	0.008
	(0.072)	(0.072)
trong Partisan	0.200^{***}	0.206^{***}
-	(0.023)	(0.023)
olitical Interest	0.403***	0.405^{***}
	(0.018)	(0.018)
ength of	0.108^{***}	0.109^{***}
esidence	(0.010)	(0.010)
mployed	-0.036	-0.041*
	(0.024)	(0.024)
ome Ownership	0.199***	0.194^{***}
*	(0.032)	(0.033)
onstant	-4.526***	-5.505***
	(0.263)	(0.462)

Table D4-6: SDR Sample TreatmentEffect on Campaign Contactin 2012 Election (CEM Models; CCES)

Table D4-6: Continued	
$\mathbf{D}_{1} = 1 \cdot \mathbf{D}^{2}$	0.1

Pseudo R^2	0.160	0.161
Pseudo LL	-29398.705	-29345.802
BIC	59003.833	58908.892
Observations	52281	52281

Standard errors are clustered by state in parentheses. The estimates are logistic regression coefficients. * p < 0.10, ** p < 0.05, *** p < 0.001

Appendix E

Chapter 5 Baseline Catalist Models

(Catalist; Lagged Panel Model)					
	In-Person Election	Early Voting	Absentee/Mail	SDR Voting	
	Day Voting		Voting		
Poor	-0.128***	-0.129*	-0.132**	0.133	
	(0.036)	(0.078)	(0.044)	(0.149)	
Vote 2010	2.055^{***}	2.013^{***}	2.058^{***}	1.328^{***}	
	(0.066)	(0.095)	(0.113)	(0.197)	
Count of	-0.110	0.222	0.852^{***}	5.060^{***}	
Election	(0.074)	(0.246)	(0.229)	(1.194)	
Reform Laws					
Vote Margin	0.019^{**}	0.008	0.002	-0.017	
	(0.008)	(0.033)	(0.021)	(0.026)	
Missing Income	-0.428***	-0.189	-0.172	-0.608**	
	(0.084)	(0.240)	(0.261)	(0.276)	
Male	0.040^{**}	-0.004	-0.094***	0.023	
	(0.013)	(0.037)	(0.019)	(0.047)	
Age	0.007^{***}	0.024^{***}	0.026^{***}	-0.017	
	(0.001)	(0.003)	(0.003)	(0.013)	
Education	1.307***	2.109^{***}	2.194^{***}	0.729^{**}	
	(0.114)	(0.520)	(0.212)	(0.284)	
Black	0.050	0.504^{**}	-0.392	-0.511	
	(0.051)	(0.153)	(0.267)	(0.414)	
Hispanic	-0.478***	0.027	-0.062	-0.770^{***}	
	(0.068)	(0.407)	(0.135)	(0.210)	
Asian	-0.738***	-1.072***	0.134	-0.627**	
	(0.067)	(0.308)	(0.126)	(0.214)	
Other Race	-0.374***	-0.538**	-0.455**	-0.345	
	(0.110)	(0.217)	(0.144)	(0.425)	
Partisan	0.154	-0.087	0.348	-1.434**	
	(0.137)	(0.606)	(0.281)	(0.528)	
News Interest	0.155^{***}	0.101^{*}	0.119***	-0.071	
	(0.017)	(0.053)	(0.026)	(0.132)	
Length of	0.007^{***}	-0.001	0.004	-0.025	
Residence	(0.002)	(0.005)	(0.003)	(0.024)	
Employed	-0.140***	-0.360***	-0.332***	0.348	
	(0.014)	(0.048)	(0.034)	(0.727)	
Hoe Ownership	0.340***	0.523***	0.142^{**}	-0.034	
	(0.028)	(0.124)	(0.057)	(0.135)	
Constant	-4.505***	-7.172**	-6.882***	-16.231***	
	(0.696)	(2.957)	(1.830)	(3.319)	

Table E5-1: Multinomial Analysis on Change in Individual Likelihood of Using Convenience Vote Method Choice from 2010 to 2014 varying State Electoral Systems, relative to Non-Voting (Catalist; Lagged Panel Model)

Table E5-1: Continued

Pseudo R^2	0.217	0.217	0.217	0.217
Pseudo LL	-1770679.795	-1770679.795	-1770679.795	-1770679.795
BIC	3542077.822	3542077.822	3542077.822	3542077.822
Observations	2,321,638	2,321,638	2,321,638	2,321,638

Note: The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.001

	In-Person Election	Early Voting	Absentee/Mail	SDR Voting
	Day Voting		Voting	C
Poor	-0.123**	-0.089	-0.181**	0.057
	(0.042)	(0.074)	(0.058)	(0.122)
Vote 2008	1.933***	1.789^{***}	1.822^{***}	0.786^{***}
	(0.067)	(0.077)	(0.103)	(0.212)
Count of	-0.147**	0.405	0.633**	1.605
Election	(0.063)	(0.290)	(0.212)	(1.355)
Reform Laws				
Vote Margin	0.000	0.042	-0.003	-0.013
-	(0.007)	(0.033)	(0.022)	(0.052)
Missing Income	-0.956***	-0.819***	-0.693**	-1.192**
C C	(0.091)	(0.237)	(0.253)	(0.393)
Male	-0.047***	-0.134***	-0.168***	-0.031
	(0.013)	(0.021)	(0.022)	(0.033)
Age	0.000	0.014^{***}	0.020^{***}	-0.018*
0	(0.001)	(0.003)	(0.002)	(0.010)
Education	1.404^{***}	2.558^{***}	2.523***	0.704^{*}
	(0.109)	(0.326)	(0.196)	(0.363)
Black	0.187^{***}	0.785***	-0.137	-0.996***
	(0.052)	(0.162)	(0.258)	(0.312)
Hispanic	-0.085	0.345	0.082	-1.347**
•	(0.111)	(0.271)	(0.132)	(0.485)
Asian	-0.512***	-0.776***	0.113	-0.967**
	(0.069)	(0.285)	(0.111)	(0.376)
Other Race	-0.084	-0.106	-0.070	0.182
	(0.157)	(0.236)	(0.167)	(0.331)
Partisan	0.281**	-0.017	0.315	-1.282*
	(0.122)	(0.569)	(0.306)	(0.669)
News Interest	0.202^{***}	0.150^{***}	0.210***	0.024
	(0.021)	(0.039)	(0.024)	(0.081)
Length of	0.002	-0.002	-0.000	-0.017
Residence	(0.002)	(0.004)	(0.003)	(0.019)
Employed	-0.121***	-0.304***	-0.279***	0.356
	(0.023)	(0.038)	(0.044)	(0.477)
Home	0.306^{***}	0.433***	0.185^{**}	0.223
Ownership	(0.022)	(0.089)	(0.060)	(0.194)
Constant	-1.475***	-8.731**	-4.769**	-5.807**
	(0.592)	(3.239)	(1.844)	(2.474)
Pseudo R^2	0.177	0.177	0.177	0.177
Pseudo LL	-2181897.610	-2181897.610	-2181897.610	-2181897.610
BIC	4364511.222	4364511.222	4364511.222	4364511.222
Observations	2,218,389	2,218,389	2,218,389	2,218,389

Table E5-2: Multinomial Analysis on Change in Individual Likelihood of Using Convenience Vote Method Choice from 2008 to 2012 varying State Electoral Systems, relative to Non-Voting (Catalist: Lagged Panel Model)

Note: The estimates are logistic regression coefficients. Standard errors are clustered by state in parentheses. * p < 0.10, ** p < 0.05, **** p < 0.001

Notes

1. According to the American Community Survey (see Mateyka 2015), 14.3% of movers are individuals earning less than \$25,000 per year. This is compared to 9.9% earning between \$25,000 to \$49,999, 8.2% earning between \$50,000 and \$74,999, 6.6% earning between \$75,000 and \$99,999, and 5.6% earning \$100,000 or more.

2. Largely the more urbanized or highly populated counties.

3. Party elites in the second set of SDR states advocated adoption of the law to avoid federal requirements that their states implement the Motor Voter provision the National Voter Registration Act.

4. Individuals are matched on income, education, age, gender, and race and ethnicity covariates.

5. A limitation of Catalist data is that it consists of a number of imputed variables, including news interest, home ownership, and employment. Hersh (2015, Chapter 4) notes that these simulated variables are less accurate predictors than the variables based on actual records. Hence, in this study, it is useful to robustness check the Catalist findings with the CCES models.

6. An example would be individuals of higher socio-economic status.

7. These covariates were selected as measures of an individuals' socio-economic status because income is one of the key components of the standard socio-economic status voting model (Wolfinger and Rosenstone 1980). Alternative socio-economic (such as education) or demographic variables (such as age, length of residence, or racial minority status) prominent in the study of voting were considered and analyzed, but the best performing models tended to be those that incorporated the poor variable.

8. Individuals are more likely to vote in elections in which they have a greater probability of casting the deciding vote (Blais 2000), and because campaigns and parties are more likely to mobilize citizens in these contexts (Rosenstone and Hansen 2003; Cox and Munger 1989).

9. The other race category encapsulates individuals who did not located themselves in the Caucasian, African American, Hispanic, or Asian racial categories.

10. Based on the Catalist samples used in this study, in the 2014 midterm elections 62,916 more ballots were cast in early voting relative to non-early voting states; 120,261 more in no-excuse absentee and mail voting compared non-mail ballot states; and 297,402 more ballots in SDR versus non-SDR states. For the 2012 elections, the numbers are 7,099 more ballots cast attributable to early voting; 83,633 more ballots due to no-excuse absentee and mail voting; and 204,314 more related to SDR voting.

11. A second way to reconcile the disparate findings might be to argue that both absentee/mail and early voting tap into a similar phenomenon (i.e., giving voters a longer period of time to cast ballots) that positively relates to turnout. There is evidence to support this inference. Early voting and mail-in ballots states are highly correlated (r=0.73, p<0.01), indicating that most states with one of these laws also have the other. The disparate absentee/mail and early voting results from the Catalist and CCES-CEM might be due to sampling designing differences across the two datasets.

12. Although federal law prohibits the Census from disclosing to campaigns the income of individuals, this information is made available to campaigns at block group levels consisting of 200,000 people

13. However, Piven and Cloward (1977, 15) note a recurring clamp on poor participation has been "restraints on the ballot box" and other prohibitions on their political participation, which limited their gains in these policy areas.

14. A few pivotal studies (Karp and Banducci 2001; Fitzgerald 2005), which have tended to find that convenience voting laws benefit already likely voting groups, have not controlled for income.

15. The federal poverty rate is identical in the contiguous 48 states, and is slightly higher in Alaska and Hawaii due to these state's higher costs of living. Even with this consideration, these state's poverty rates are similar to that of the other states, and therefore allow an identical measurement strategy to specify poor individuals in all fifty states.

16. Based on the Catalist samples used in this study, in the 2012 presidential elections, among poor citizens 8,194 more ballots were cast in early voting relative to non-early voting states; 22,181 more in no-excuse absentee and mail voting compared non-mail ballot states; and 34,472 more ballots in SDR versus non-SDR states. For the 2014 elections, among poor citizens the numbers are 16,185 more ballots cast attributable to early voting; 21,173 more ballots due to no-excuse absentee and mail voting; and 34,661 more related to SDR voting.

17. On the CCES, the question reads: "Did a candidate or political campaign organization contact you during the [insert election year] election?" Previous research has shown these mobilization methods to be positively related to turnout (Green and Gerber 2008; Mossberger, Tolbert, and McNeal 2008).

18. The control group was non-recipients of campaign letters.

19. Hersch (2015, Chapter 3) chronicles a long history of this taking place.

20. Not all states have public record of voters' demographic characteristics, so campaign firms and parties must either impute this information, or assume that individual-level voter characteristics mirror average demographic characteristics of their wider communities (Hersh 2015, 59-60).

21. Burden et al. (2014) differentiate between modes of SDR that allow registration and voting on the day as well as the early voting period preceding an election, and only registration and voting on the day of the election (Election Day Registration).

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