It's In the Mail: The Effect of Vote By Mail Balloting on Voter Turnout and Policy Outcomes in U.S. Elections

by

Sarah Marie Sled

B.A. in Political Science
University of California, Berkeley (2002)

SUBMITTED TO THE DEPARTMENT OF POLITICAL SCIENCE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN POLITICAL SCIENCE AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY FEBRUARY 2008

©2008 Massachusetts Institute of Technology. All Rights Reserved.

Signature of Author: 

Department of Political Science
November 2, 2007

Certified by: ___

Stephen D. Ansolabehere
Elting R. Morison Professor of Political Science
Thesis Supervisor

Accepted by: ___

Edward S. Steinfeld
Associate Professor of Political Science
Chairman, Graduate Program Committee
It’s In the Mail: The Effect of Vote By Mail Balloting on Voter Turnout and Policy Outcomes in U.S. Elections

by

Sarah Marie Sled

Submitted to the Department of Political Science on November 2, 2007 in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Political Science

ABSTRACT

The goal of this dissertation is to aid our understanding of how electoral institutions in the United States affect political participation and, in turn, shape policy outcomes. I investigate this relationship by analyzing the all-mail balloting method known as Vote By Mail. Using a data set of 3310 cases representing elections in 7 states, I show that the use of Vote By Mail produces an overall effect of a 10 percentage point increase in turnout across all types of elections. This finding is consistent with past research, which states that the increase in turnout occurs because Vote By Mail, similar to other “ease of voting” reforms, reduces the cost of voting. As an alternative hypothesis, I propose that the turnout increase from Vote By Mail is a more nuanced effect, moderated by the salience of a given election. I then organize these elections into low salience and high salience categories, and demonstrate that the turnout effect is more nuanced than previously thought. The implementation of Vote By Mail produces turnout effects that increase in magnitude as the salience of the election decreases, with a range from 3.4 percentage points increase in the high salience category of presidential general elections to an increase in turnout of 15 percentage points in the low salience category of local special elections.

I then examine whether an increase in voter turnout results in an shift of the electorate’s policy preferences. Comparing the outcomes of school bond measures in Vote By Mail elections with traditional elections, I show there is no statistically significant difference in the likelihood of passage of school bond measures. Furthermore, there is no statistically significant difference in percentage of “Yes” votes received on these measures. This analysis demonstrates that the increased turnout resulting from the use of Vote By Mail elections does not produce a shift in the policy preferences of the median voter.

Thesis Supervisor: Stephen D. Ansolabehere
Title: Elting R. Morison Professor of Political Science
Acknowledgements

I could not have completed this dissertation without considerable help and support from many people. I am indebted to Steve Ansolabehere, for the advice and support he gave me, both on during my thesis writing and throughout my graduate career. Steve has been enthusiastic about this project since I first happened upon it in the second week of graduate school, and has provided guidance, useful criticism and encouragement throughout the course of the project. I’m also greatly appreciative of Charles Stewart III and Adam Berinsky, who served on my committee and gave me excellent suggestions. A number of other MIT and Harvard faculty provided useful comments on this project over the years, including Andrea Campbell, Jim Snyder, Jonathan Rodden, Chap Lawson, Barry Burden, and Eric Schickler. On the administrative side of things, Susan Twarog and Diana Gallagher have assisted me greatly in navigating the bureaucracy of graduate school.

It has been a wonderful and intellectually enriching experience to be affiliated with the CalTech-MIT Voting Technology Project for the last five years. In addition to the VTP affiliates noted above, at MIT I owe special thanks to Ted Selker and Ron Rivest for their interest in my project and helpful suggestions. I feel fortunate to have also had excellent advice from faculty at CalTech, particularly Mike Alvarez and the inimitable Jonathan Katz.

The hard times of graduate school were eased considerably by the company of the wonderful friends and colleagues I have met while at MIT. When I walked into our department’s orientation back in September 2002 and found that I was the only woman in my cohort, and the only person studying American politics, I was a bit trepidatious. But the gentlemen who I came to refer to fondly as “my boys” proved to be wonderful classmates and friends, and I’m glad to have had them as peers. Thanks to Will Norris, Josh Rovner, Austin Long, Gave Rubin, Colin Jackson, Llewelyn Hughes, Ed Cunningham, Will LeBlanc, Chris Wendt, and Adam Ziegfeld.

Working at the Muddy Charles provided a welcome escape from long days of research, and gave me the chance to meet fascinating people from all over MIT. To all the fantastic grad students who I had the pleasure to meet and work with—John Mills, Keith Santarelli, Melissa Mazmanian, Mike Blair, Nici Ames, Leslie Mebane, Ed Van Veen, Jess Vey, Jamie Newman, Gina Lafkas, Will Hagan, Dietrich Falkenthal, and Dave Danielson—cheers!

I am lucky to have had a number of friends outside of MIT. When I first arrived in Boston I was lucky enough to have a friend from Berkeley already here—Phil Lapsley is a brilliant person and wonderful friend who has been incredibly supportive, even after he escaped back to California. Adam Meshel provided empathetic perspective, and encouragement to persevere to the end. I’m also blessed to have met one of my
best friends Natasha (Reilly) Poylin while I was in graduate school. Tasha has been an endless source of encouragement, and a sounding board for everything good and bad in my life. Thanks also to Tash’s lovely husband Vitaliy for putting up with us girls and our endless hours of talking, and the entire Reilly family, for welcoming me and making me feel like I had a home away from home.

I am thankful for all my friends at Harvard—without you I would have had a much less rich graduate school experience, both academically and socially. Andrew Reeves was my first officemate, and has become one of my best friends. Anj, there are far too many great memories to list, but all I can say is I hope you never forget to celebrate Veteran’s Day Eve. Colin Moore is a scholar and a gentleman who I can always count on. Colin, thanks for all the post-teaching meetings to decompress— I appreciated all our long talks, whether they took place at Forest, West Side, or the Bahamian outpost of Nobu. Ryan Moore was always willing to patiently explain concepts to me (like the location of states), and is one of my favorite people to talk turkey with, because as much as he enjoys hearing stories of my adventures, Ryan knows better than to go to Anna’s for a quick bite with Andrew and I. With her level-headed nature, Ellie Powell has added a healthy dose of sanity to our group of friends, as has kept us all well-fed. Ben Ansell is great company to drink a beer and commiserate with about grad school, and he’s been known to occasionally spark a dance craze. Ryan Moore’s lovely wife Morgan Cole and daughter Maggie, along with our friend Meg Lally, have all been eternally patient and supportive of our entire circle of friends, even as they’ve had to live through the perils of grad school with us. At CalTech Betsy Sinclair and Brian Rogers are not only one of the smartest couples I know, but were always the most gracious of hosts, even when I showed up from Boston for a party with only four hours notice. Delia Bailey has been a helpful editor of my work, my partner-in-crime, and my dear dear friend.

Additional special thanks are due to the aforementioned Ryan Moore and Delia Bailey, who during the final hectic weeks before my defense made themselves available at literally any hour to help me think through a problem, go over results, or just give me a pep talk to cheer me up. Your generosity is a testament to your character as academics, and friends.

Lastly and most importantly, I cannot give thanks enough to my amazing family. Everyone has supported me through the highs and the lows of graduate school, always willing to celebrate the milestones with me and even more meaningfully, to reassure and encourage me during the challenging times. My Aunt Arlene and Uncle Jim Lucchesi, and their daughter Kyra have always been enthusiastic about my endeavors, and they are some of the most generous people I know. My Busi, Anne Sled, has endless love and support for everything her grandchildren do, and I’m convinced she has the sharpest mind of any of us. My brother Josh Sled inspires me with his generosity, the passion he has for his work, and his unflappable nature.
I owe the greatest debt of gratitude to my parents, Tom and Fran Sled. Mom and Dad, you have always believed in me and provided the perfect balance of encouragement without pressure, support while fostering independence, and of course, unconditional love. I would never have achieved this goal were it not for the emphasis you placed on education, which you demonstrated not only through your words but also through your actions - the sacrifices you made for Josh’s and my education, and the example you have both set in your own constant quests for knowledge. I am eternally grateful for everything you have given me— I could not have done it without you.

- Sarah Marie Sled
Cambridge, Massachusetts
November 2, 2007
# Contents

Acknowledgments 3

1 Introduction 9

2 What Is Vote By Mail? 13
   2.1 Vote By Mail Election Procedures 13
      2.1.1 Pre-Election Preparation 14
      2.1.2 Balloting Procedure 14
      2.1.3 Verification and Counting of Votes 17
   2.2 What It Is Not: VBM versus Absentee Voting 17
   2.3 The Implementation and Expansion of VBM 19
   2.4 History of Vote By Mail 21
   2.5 Current Status of Vote By Mail 24
   2.6 The Future of Vote By Mail 24

3 Theory of Turnout Effects 29
   3.1 Theories of Electoral Participation 31
   3.2 Contributing Factors to the Turnout Effect 33
   3.3 Other Effects of VBM 34
      3.3.1 Cost 35
      3.3.2 Campaign Effects 35
      3.3.3 Ease of Use 36
### Table of Contents

3.3.4 Fraud .................................................. 37  
3.3.5 Partisan Effects .................................. 38  
3.4 Expected Findings .................................. 39  

4 Effect of VBM on Turnout ......................... 40  
4.1 Data ...................................................... 40  
4.1.1 Variables Collected .............................. 42  
4.1.2 Secondary Variables ............................. 46  
4.2 Findings ................................................ 48  
4.2.1 State Effects ................................. 57  
4.3 Implications ......................................... 58  

5 Effect of Vote By Mail on Median Voter ........... 59  
5.1 Characteristics of the Electorate ................ 60  
5.2 Theory .................................................. 61  
5.3 Data ..................................................... 64  
5.4 Analysis ............................................... 68  
5.5 Inferences ......................................... 73  
5.6 Areas for Future Research ...................... 73  

6 Conclusion ............................................. 78
List of Tables

2.1 Historical Advancement of Vote By Mail ........................................... 23
4.1 Cases of Vote By Mail by State ......................................................... 42
4.2 Cases of Vote By Mail by Year ............................................................ 43
4.3 Effect of Vote By Mail on Turnout ..................................................... 48
4.4 Effect of Vote By Mail on Turnout with Interaction Effects .............. 50
4.5 Composite of Main Effect and Interaction Effects of Vote By Mail on Turnout ................................................................. 51
4.6 Effect of Vote By Mail and Salience of Election on Turnout ............ 53
4.7 Effect of Vote By Mail, Salience of Election, and Interaction Effects on Turnout ................................................................. 54
4.8 Sum of VBM Main Effects and Interaction Effects on Turnout ........ 55
4.9 Predicted Turnout by Election Category ............................................ 57
4.10 State Effect of VBM on Turnout ....................................................... 58
5.1 Passage Rates of All Ballot Items ...................................................... 68
5.2 Passage Rates for All Ballot Items By Format .................................. 69
5.3 t-tests of Significance for Difference of Ballot Item Passage, By Format ................................................................. 70
5.4 Passage of School Bonds by Vote By Mail ........................................ 70
5.5 Effect of VBM and School Bond Amount on Likelihood of Passage .... 71
5.6 Yes Percentage of School Bonds by Passage and Vote By Mail ........ 71
5.7 Effect of Log Bond Amount and Vote By Mail on Yes Percentage ... 72
Chapter 1

Introduction

Public participation in politics, and voter turnout specifically, is an indicator of the health of our democracy. The prevalence of the “permanent campaign” (Ornstein & Mann, 2000) and the American practice of frequent elections have together caused a nearly unending stream of turnout figures to be reported in the media, with the rare instance of high turnout earning praise and the more common low turnout numbers given as a warning knell of the growing apathy of the American citizen.

As concern over low turnout rises, focus turns to how the institutions and procedures of elections affect participation. Do electoral institutions which ease the process of voting produce higher turnout? If so, who are the people who vote under the use of these institutions and do they have different policy preferences than those who vote in traditional polling place elections? The case of Vote By Mail provides the opportunity to discuss how electoral institutions and procedures affect political participation and in turn, the overall quality of democracy.

This dissertation examines the effects of Vote By Mail (VBM) on voter turnout and policy outcomes in elections in the United States. Vote By Mail is the electoral procedure of mandatory all-mail balloting. Instead of the traditional method
of voting, whereby voters travel to polling places in their community and cast their ballots, in VBM elections, ballots are mailed to all registered voters approximately three weeks before the election date. Citizens may complete and submit their ballot at any point during a designated time period, generally two to three weeks in length. The first VBM election occurred in California in 1977, and since then has been used under various electoral conditions in seventeen states, including most notably Oregon, which has used Vote By Mail exclusively for all elections since 1999. Since the implementation of VBM fundamentally changes the nature of an election, it necessitates a thorough examination of its effects on turnout, the composition of the electorate, and resulting policy outcomes.

The first relevant question is the effect of VBM on turnout. The calculus of voting suggests that lowering the costs of casting a ballot will result in increased participation. However, most previous academic research of Vote By Mail and other so-called "ease of voting" or "convenience" election reforms have found only moderate increases in turnout, despite the reduction in the personal cost of voting. There are several mechanisms through which VBM elections lower the costs of voting, such as reducing travel time to the polls and providing voters with a much longer window of time to cast their ballot. In addition to the turnout increase from the lowered cost of voting, the first use of VBM balloting in a district generally results in an informational campaign by the office of elections to prepare voters for the new voting method. This should result in higher turnout based on the increased awareness of an election and the novelty of the new method, which further entices people to participate, either because of personal curiosity or increased social discussion and pressure. Subsequent elections will see a more moderate increase in levels of participation as the novelty of the new voting method wears off. There is also an increase in awareness of an election that is not the result of an informational campaign, but is a side benefit inherent in VBM balloting. In low-stimulus elections, such as city council elections,
low participation can result because many voters may be unaware that an election is taking place. Receiving a ballot in the mail informs voters of such an election, and will result in higher turnout.

As an alternative hypothesis, I propose that the turnout effect of Vote By Mail elections is a variable effect, moderated by the salience of a given election. Testing this hypothesis with regression analysis on a data set of 3310 cases reveals that the implementation of Vote By Mail produces turnout effect on average of 10 percentage points. However, the effect varies based on the salience of the election, such that the increase in magnitude as the salience of the election decreases, with a range of 3.4 percentage points increase in a high salience category of Presidential general elections to 15 points in the low salience category of special local elections.

Turnout levels on their own are an important indicator of political participation, but we also care about how VBM substantively changes the outcome of elections. If VBM produces higher turnout in the range of 3 to 15 percentage points, how do those additional voters affect the policy preferences of the median voter in the VBM electorate compared to a traditional polling place electorate? Investigating the policy preferences of the electorate on non-candidate ballot items, and in particular, on the issue of school bonds, can shed some light on these questions.

School bonds are an ideal avenue for examining the effect of VBM on the policy preferences of the electorate or several reasons. First, school bond elections occur with great regularity, so there is a fair amount of time-series data available with many data points describing repeated aggregate preferences on the same topic. Second, the election-specific or bond-specific variables which do exist, such as the amount of the proposed bond, are able to be quantified and thus can be controlled for by inclusion in the regression analysis.
By examining the data from non-candidate ballot items we are able to assert that the increased turnout from Vote By Mail elections does not cause a shift in the median voter. Testing the pass rates and yes percentages for school bond elections has produced findings consistent with the hypothesis that the increase in voter turnout resulting from the implementation of Vote By Mail does not shift the median voter. This supports the explanation that the voters who make up the increase in turnout are not infrequent voters from the periphery of electoral involvement, but rather those voters who are likely participants in the election process.

These results provide insight as to how electoral institutions in the United States affect participation. The following chapters detail the findings described above. Chapter 2 provides an explanation of the Vote By Mail process, a history of its use, and a discussion of some of the other issues surrounding its implementation. Chapter 3 describes the data used in the analysis, including the case selection, sources, and the specification of variables. The effect of Vote By Mail on voter turnout is presented in Chapter 4, and the effect on the composition of the electorate, shown through the policy preferences of the median voter is tested in Chapter 5; Chapter 6 concludes.
Chapter 2

What Is Vote By Mail?

To understand the effect an electoral institution has on the outcomes, it is important to understand the points in the electoral process that are changed by the implementation of the institution. ¹ We begin with an explanation of the procedures used in Vote By Mail elections and how these procedures change the fundamental nature of the election for administrators, voters, and candidates.

2.1 Vote By Mail Election Procedures

Vote By Mail refers to the electoral procedure of all-mail balloting. Instead of the traditional method of voting, whereby voters travel to polling places located in their community to cast their ballot, in VBM elections all voters cast their ballot by mail. Although the election administration procedures vary somewhat by location, Oregon's procedure can be considered the general standard of how to conduct this type of election, since Oregon has had by far the most experience in conducting this type

¹The term “traditional election” is used here to describe elections in which the ballots are usually cast in person at polling places. This term encompasses elections which may also include other types of balloting, such as absentee voting, early voting, or provisional voting. These elections are distinguished from Vote By Mail elections is that the opportunity exists for in person polling place voting and the use of these other methods is an option provided to voters.
of election. The Oregon Secretary of State's website provides a 137 page manual detailing the rules and procedures of holding such an election. (Bradbury, 2007) Many other states and municipalities have modeled their own VBM election practices on Oregon's experience. The steps described below are based on Oregon's methods.

2.1.1 Pre-Election Preparation

When an election administrator implements VBM, he is switching to this balloting process from an existing alternate voting method, and thus there are many of his normal procedures he needs to adjust. Although many aspects of election administration change, much of the preparation work, such as the ballot design and voter registration, are of comparable workload.

The changes in the pre-election procedures described above may produce outcomes which ultimately end up affecting the apparent turnout numbers. These effects are described further in Chapter 3. The first use of VBM in an election district frequently motivates a cleaning and purging of the voter registration rolls. Since ballots must reach voters via mail, it is especially important to have a correct and up-to-date address listing for each voter. The first implementation of Vote By Mail also is usually preceded by an informational campaign to let voters know about the new voting method.

2.1.2 Balloting Procedure

Approximately two to three weeks before the election date all registered voters are sent an election packet containing a ballot, a secrecy envelope, and a return mailing envelope. The voter completes the ballot, places the ballot in the secrecy envelope, places the secrecy envelope inside the return envelope, and then signs the outside of
the return envelope. To submit the ballot the voter has three options: he can affix a stamp and send via US postal mail, he can drop it at a designated drop box, or he can deliver it in person to the county election office. The alternatives to using the postal service for ballot submission came into existence largely because of early legal challenges addressing whether the cost of postage, necessary to submit a ballot by postal mail, constituted a poll tax. Providing ballot drop boxes circumvents the necessity of using the postal service and thus the cost of a stamp. In some locales, although not in Oregon, local election laws permit civic groups and organizations to gather ballots directly from voters and “bundle” them for submission.

A voter can complete and submit his ballot at any time from receipt of the election packet until the deadline of the election day, which usually creates a voting opportunity time of two to three weeks. Most states require that the ballot by received by 8:00pm (or whatever time would normally be the close of the polls) on election day, regardless of the date of postmark.

**Alternative Balloting**

In a traditional election there may be several ballot-casting methods in use. While the primary method may be in person polling place voting, the electoral laws may also provide options such as early voting or absentee voting, in addition to the use of polling places. These options may be offered on a highly restrictive basis to accommodate a small number of voters for whom either the time or location of voting on election day at a polling place is prohibitive. At the other end of the spectrum, these alternative voting options may be offered to all voters, in the hopes of increasing turnout by reducing the inconvenience of voting through multiple options. Although Vote By Mail generally reduces the number of different voting options, there are still some alternative methods in place to meet the needs of all voters.
Provisional Balloting

In polling place voting, if a voter accidentally arrives at a polling places that does not have him on the roll, the voter will be allowed to cast a provisional ballot at that location, and if after investigation it is shown that he does in fact reside in the precinct, then his vote will be counted. VBM elections also have provisional balloting procedures. If a voter does not receive a ballot in the mail, they can contact their election office and will be issued a replacement ballot. If records indicate that a ballot was sent to that voter, the election official can invalidate the number on the original ballot to ensure that if it is received it will not be counted. This provision helps to ensure participation even in the case of accidental problems in ballot delivery, and also helps prevent fraud associated with ballots intercepted while in transit. However, the issuing of replacement ballots is not a complete cure for these problems in that if a ballot does not reach a voter, he may not realize that he has missed receiving it, due to a lack of a set day on which the election takes place and the increased time period of voting. Furthermore, the voter may not know it is possible to obtain a replacement ballot or how to go about doing so.

Advanced Voting

Even though Vote By Mail is, by its very nature, “advanced voting” there may also be a separate “Advanced Voting” option in VBM elections, such as that used in Sedgwick County, Kansas. Since in VBM elections a voter automatically receives a ballot delivered to the address where they are registered, if the voter knows that they will not be at that residence to receive their ballot, they can request in advance to have their ballot mailed to an alternate address for that election.
2.1.3 Verification and Counting of Votes

Once the ballot is received in the office of the election administrator, the return envelope is checked to confirm it has been sent to the correct jurisdiction. The name and signature on the outside of the return envelope is checked by computer to ensure that it is a registered voter who has not already voted, that the ballot has been received in the correct election district, and that the signature is authentic. If the computer cannot verify the signature, the signature is checked manually against the voter rolls by an election worker. If there is no signature present, an effort is made to contact the voter and have them verify their identity and voting status. If the signature is deemed valid, the envelope is then sorted by precinct. The steps up to this point can be completed prior immediately if received prior to election day, but the verified and sorted ballots will be kept in their secrecy envelopes until the Thursday before election day.

On election day the verified and sorted ballots are then opened and the secrecy envelope is removed from the return envelope. The return envelopes are grouped by precincts and saved for use as a verifying record. The secrecy envelope is opened and the ballot counted. The separation of the two envelopes creates the separation of the identifying information contained on the external return envelope from the vote choices made on the ballot, thus ensuring the secrecy of the ballot while providing verifiability to both voter and election administrator. The counting of ballots does not begin until election day, when the ballots begin to be processed by precinct.

2.2 What It Is Not: VBM versus Absentee Voting

Some people use the term “Vote By Mail” when referring to any ballot cast through the postal system, such as one-time absentee voters, permanent absentee voters, or
military personnel abroad. For the purposes of this paper, the term Vote By Mail (VBM) refers exclusively to the electoral procedure of all-mail balloting. VBM does have connections to absentee voting, in that some of the states where it has been implemented are very familiar with absentee voting and have electoral laws which were very permissive of absentee voting in general. The physical design of the ballots used in VBM elections, as well as the process by which ballots are sent out and received are very similar to the absentee balloting process used in many states. An important distinction between VBM and absentee voting is that in VBM, there is no additional registration step to vote through the mail. Many scholars have discussed the differences which distinguish absentee voters from polling place voters; namely that absentee voters tend to more politically sophisticated, partisan, educated, and efficacious than polling place voters. Karp and Banducci offer evidence that absentee voters are more motivated to participate in politics, which limits the effect that we would expect relaxed voting laws to have in expanding the electorate. (Karp & Banducci, 2000) Absentee voters are already part of the group of likely voters, because the extra registration step involved in becoming an absentee voter filters only these more politically sophisticated voters. (Olivier, 1996) In VBM elections, there is no such extra step, so the voting public is not filtered in this way. The only difference is the method of balloting used, so examining VBM elections versus polling place elections allows us to isolate the effect that mail balloting has, independent of the characteristics which propel voters to participate.

Unlike many of the other ease of voting reforms, all voters in VBM elections are affected by its implementation. Even when alternative ballot casting methods are offered on a non-restrictive basis, these reforms still require voters to assume some proactive cost to take advantage of them; at the very least voters must have knowledge of the existence of the reform. For example, to take advantage of a reform allowing early polling place voting, a voter must be aware of this option and take whatever
steps necessary to register for it. This informational hurdle alone is most likely what causes the increased voters from these convenience voting reforms to appear very similar to existing voters, since it is those highest in terms of political skills (and thus closest to the core voters) who are able to take advantage of the reforms.

The distinction between VBM and absentee voting being said, the similarity of the two processes can aid in the transition to VBM, since at least some percentage of voters are already familiar with these procedures, based on their past experience casting absentee ballots. Indeed, many communities which have experimented with VBM are those districts which experienced high rates of absentee voting. Counties in Washington and California which routinely saw absentee voting account for upwards of 70% of ballots cast were among the first to implement VBM. Santa Cruz county in California, and Kings County in Washington are two such examples. Even when absentee voting is not prevalent, almost all states have at least a limited amount of absentee voting to accommodate persons who are physically incapable of voting in person due to illness or disability. Thus on the administrative side, election officials have had some experience conducting mail voting, although it may be on a much smaller scale than election-wide. Nonetheless, this experience can ease the transition for election officials, since the process is not wholly new.

2.3 The Implementation and Expansion of VBM

One important consideration affecting the selection of cases is the process by which VBM is implemented in the first place. State and local electoral laws dictate the balloting methods an election administrator is allowed to use. These laws fall into two categories: laws that mandate the use of VBM if certain circumstances are met, and laws that permit the use of VBM but do not require it. Although Oregon's law
mandating the use of VBM is the most sweeping implementation, generally the laws which require the use of Vote By Mail do so in extreme circumstances of population location or geography, to prevent hardship being incurred by either the voter or the election administrators. Overall, the majority of states’ laws fall into the category not of mandating the use of VBM, but laws which permit VBM as an option and dictate the conditions under which an election official may choose to use VBM. These laws constrain the use of VBM based on the circumstances of the election, considering factors such as the presence of candidate offices (versus questions), the highest level office on the ballot, and the population density of the election district or precinct. The most common limitations placed on the use of VBM are restrictions on the type of district, type of election, or type of questions on the ballot. It is frequently allowed for municipal, school, or county districts; for special elections; and for non-partisan offices or non-candidate questions. For example, the state of California permits Vote By Mail to be used as long as it is not held on the same date as a state-wide direct primary or general election, if one of the following conditions is met: (Committee on Elections and Redistricting, 2005)

- An election with fewer than 1000 registered voters.
- An election in a district with 5000 or fewer registered voters that is restricted to the imposition of special taxes, expenditure limitation overrides, or both
- A maximum property tax rate election
- An election on the issuance of a general obligation water bond
- An election in one of four water districts
- A special election to fill a vacancy in a school district, special district, or city with a population of less than 100,000

After being implemented on a limited basis, for elections which fall into special categories such as those described above, VBM is then expanded to include more
types of elections or larger scale elections. Examining the use of VBM in Oregon and Washington helps illustrate this expansion.

2.4 History of Vote By Mail

While Vote By Mail is generally discussed in relation to its use in Oregon, it was first implemented in Monterey, California in 1977 for a county election containing a question on flood control. Since then it has been used on a limited basis in seventeen other states, under provisions designated by local and state law. The most common limitations placed on the use of VBM is that it is allowed for all county elections, for any non-partisan or non-candidate elections, or for any municipal, school, or special district elections. With the exception of Oregon, and most recently Washington, most states do not permit VBM to be used for any election featuring state-level offices. Despite the large number of cases of VBM across the country, very little empirical work has examined electoral results achieved from the elections held in states other than Oregon. Irrespective of the dearth of quality analysis, the conventional wisdom is that VBM is a positive election reform that brings increased turnout, better participation, and other benefits.

Vote By Mail garnered national attention during its use in the Oregon special elections to replace Bob Packwood, with its high turnout rates, as evidence of the success of VBM. Compared to national averages, this election may seem exceptionally successful, and it is understandable that people would attribute these high figures to the institutional aspect of the election that was obviously different—the balloting method of VBM. However, this causal linking fails to take the many other special circumstances regarding this election into consideration. In the case of Packwood’s resignation, there were really two forces at play: the changing of ballot types and the
special election itself. The media hype surrounding each of these noteworthy events combined and had not an additive effect, but a multiplicative effect. The media attention of the scandal raised awareness of the special election and the new method of voting created a heightened climate of social pressure to participate in the election. Many of the reports in Oregon’s newspapers from this time place a great deal of emphasis on Oregon’s pioneering role in implementing this voting technology.

In March 1996 North Dakota became the first state to use VBM for a presidential primary election, and Oregon followed with its own VBM presidential primary a few weeks later. (Oregon Secretary of State, 2006) After several attempts in the state legislature to pass laws expanding the use of Vote By Mail to state-wide primary and general elections, Oregonians voted via direct initiative to expand the use of VBM, and became the first (and currently only) state to mandate the use of VBM for all elections. To date there are seventeen states which have permitted Vote By Mail under some circumstances: Alaska, Arizona, California, Colorado, Florida, Kansas, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, New York, North Dakota, Oregon, Utah and Washington. Over the last three decades the use of VBM has increased substantially.

**Oregon**

In the United States, VBM is most commonly associated with the state of Oregon, where it has been the exclusive election method since 2000 and prior to that was used broadly in the state for almost ten years. In 1981 a law passed by the Oregon state legislature permitted a trial use of VBM for local elections. In 1987 the majority of municipalities’ legislatures voted to make VBM a permanent option for use in local and special elections. The first state-wide use was in June of 1993. The first use of VBM to fill a federal office occurred during a special state-wide election to replace Senator Bob Packwood, who announced his resignation in 1995. Packwood resigned
Table 2.1: Historical Advancement of Vote By Mail

<table>
<thead>
<tr>
<th>Date</th>
<th>State</th>
<th>Electoral Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977</td>
<td>CA</td>
<td>First Vote By Mail election held in Monterey County, CA</td>
</tr>
<tr>
<td>1981</td>
<td>OR</td>
<td>OR legislature approves test of VBM for local elections</td>
</tr>
<tr>
<td>1983</td>
<td>WA</td>
<td>Special elections allowed to be conducted by VBM</td>
</tr>
<tr>
<td>1987</td>
<td>OR</td>
<td>VBM is approved permanently, most counties use for local and special elections</td>
</tr>
<tr>
<td>1992</td>
<td>CA</td>
<td>Legislature approves trial of VBM in Stanislaus and Placer counties</td>
</tr>
<tr>
<td>June 1993</td>
<td>OR</td>
<td>First state-wide special election by mail</td>
</tr>
<tr>
<td>Spring 1995</td>
<td>OR</td>
<td>Legislature approves law to expand VBM to primary and general elections, Governor vetoes bill.</td>
</tr>
<tr>
<td>Dec 1995</td>
<td>OR</td>
<td>OR holds first state-wide primary election for federal office by mail</td>
</tr>
<tr>
<td>Jan 1996</td>
<td>OR</td>
<td>OR conducts first general election for federal office.</td>
</tr>
<tr>
<td>March 1996</td>
<td>ND</td>
<td>ND is first state to hold VBM Presidential Primary</td>
</tr>
<tr>
<td>Spring 1997</td>
<td>OR</td>
<td>OR House approves bill to expand VBM to primary and general elections. Bill dies in Senate committee.</td>
</tr>
<tr>
<td>May 1998</td>
<td>OR</td>
<td>OR becomes first state to have more ballots cast by absentee than at polls</td>
</tr>
<tr>
<td>Nov 1998</td>
<td>OR</td>
<td>OR voters pass Ballot Measure 60, expanding VBM to primary and general elections</td>
</tr>
<tr>
<td>Nov 2000</td>
<td>OR</td>
<td>First Presidential general election to be held entirely by VBM state-wide</td>
</tr>
<tr>
<td>2002</td>
<td>CO</td>
<td>CO voters fail to pass Amendment 28 which would have required VBM elections</td>
</tr>
<tr>
<td>April 2005</td>
<td>WA</td>
<td>Law gives counties option to hold all elections by mail. Two-thirds of counties immediately switch to VBM</td>
</tr>
</tbody>
</table>
in the face of charges of sexual misconduct against a seventeen-year-old intern, and the resulting outcries calling his resignation from feminist organizations such as NOW. The December 1995 special primary election and the January 30, 1996 special general election to fill the vacant senate seat saw high levels of turnout—approximately 58% and 66%, respectively. In 1997 Oregon used VBM for another election, in which voters decided on the issue of physician-assisted suicide. (Harris, 1999) In 1999 voters passed an initiative that designated all future elections to be held under VBM, since 2000 all elections have been conducted using this voting method.

2.5 Current Status of Vote By Mail

Oregon has state-wide use of VBM and the state of Washington has quickly moved towards almost complete use of VBM. In April 2005 Washington passed a law allowing all counties the option to use VBM to conduct all elections by mail. Two thirds of the counties switched immediately, and by October of 2007 36 of the 39 counties were using VBM. Of the three remaining counties, King County and Kittitas County plan to switch to Vote By Mail in 2008, leaving just Pierce county conducting polling place elections. (Reed, 2007)

2.6 The Future of Vote By Mail

With all the technological advancements of society in recent years, it may seem odd to project growth in the use of an election method as simple, and perhaps antiquated, as paper. Indeed, there are a great number of alternative balloting methods that have recently received far more media attention and “buzz” than Vote By Mail. In the United States, the recent Help America Vote Act (HAVA) and the Carter-Baker Com-
mission highlighted some of these methods, such as in-person early voting, electronic in-person voting, and electronic remote voting. Abroad, there have been several examples of innovative voting methods. Text messaging is said to be largely responsible for the mobilization of thousands of young Spanish voters in Spain’s 2004 general election, and some have suggested that text messaging could be a valid form of casting votes in the future. (Suarez, 2005) The United Kingdom Electoral Commission studied the viability of text voting and found that those voters who would potentially use it were younger and that the disabled community also found it to be a helpful method. (United Kingdom Electoral Commission, 2002) Voting by internet and telephone was tried in 2003 in 11 municipalities in Ontario, Canada. Ensuring the security of internet voting (also referred to as electronic remote voting) has preoccupied academics at leading technical universities. With these far “sexier” and more technologically advanced methods looming on the horizon, why should we focus on what some may consider to be the comparatively archaic system of VBM?

Although these exciting methods have appeal, there are several reasons it will likely take many years before they are implemented. Firstly, the development of secure technology, to pass the legislation to allow or mandate these new methods, and to put them into practice. The technological challenges associated with remote electronic voting methods will likely prevent their implementation in the United States’ near future. The recent problems securing ballots from fraud and tampering in the 2000 and 2004 Presidential elections have exacerbated the long-standing American paranoia surrounding voting. The competing goals of complete anonymity, required by the Australian ballot, and complete verifiability, demanded by voters suspicious of the voting process, have proven difficult to engineer, and a solution that will be implementable on national scale is still a while off. Once the technology is created, it will still require the trust and cooperation of the American public, which may not be easily obtained. Citizens are wary not only of remote electronic voting methods, but also
of the electronic machines used to cast polling place votes and the paper trails they are supposed to provide. Even among the technologically-savvy, who widely accept internet banking and shopping, there is a deep-seeded suspicion of having electronic records of voting. When interviewed, citizens often cite McCarthy-era government practices of collecting citizen’s personal information under the auspices of national security, and then using that information to prosecute them. A number of citizen activist groups have sprung up to champion these issues.  

Given the long wait for workable electronic voting technologies, Vote By Mail is in an attractive interim solution to meet the demands for election reform being called for by voters, politicians, and election administrators alike. Perhaps the most appealing quality of VBM is its similarity to existing voting methods. Voters are familiar with the paper ballot; even in those electoral districts which are currently using electronic voting stations or punchcards, all but the newest voters likely remember using the paper and pencil ballots prior to newer methods. For those voters who don’t have experience using paper ballots, such as new voters, or persons from areas where paper ballots weren’t used (such as in precincts using lever machines), the familiarity of a paper and pencil format is immediately accessible based on experience with exams in school, government forms, etc. In terms of verifiability, the paper ballot allows a voter to confirm their ballot selections. Once they have submitted the ballot, VBM provides greater verifiability than other methods, as voters can, using a numeric code located on the outside of their security envelopes, confirm with election officials that their ballot was received and accepted for counting.

Changes in balloting methods require changes to existing electoral laws. Politicians find changing laws to permit or expand VBM to be significantly easier than efforts to institute electronic voting, largely because many states have existing laws

\(^2\)Some of the voting activist groups are: ACCURATE, Black Box Voting, Electronic Frontier Foundation, Open Voting Consortium, Verified Voting
which permit the use of VBM in some set of circumstances, as mentioned earlier.

For election administrators, VBM is attractive because it makes use of existing procedures, reduces the overall complexity of election administration, and generally requires less resources than the methods currently in place. The process of VBM usually mirrors at least one balloting method already in use in the district, that of absentee voting, and thus does not require the creation of an entirely new infrastructure and process. The overall complexity of election administration is reduced because VBM can be used by voters in many situations, eliminating the need for different voting methods to accommodate each group. In a given traditional voting district, most voters will vote in person at a precinct. There is also some group of persons who are designated under local election law as eligible to vote absentee. Depending on local laws there may also be early voting, which may be set up in government offices or at special polling places. Thus, for any election, an administrator may need to organize ballots, locations, procedures and staff for three different methods of casting votes. Switching from this method to VBM reduces the necessary planning to just one voting method, since absentee and early voters are already accommodated through VBM and no separate arrangements are needed. In addition to easing the planning process, the lack of polling locations and workers needed to staff those sites reduces the cost of an election substantially. In fact, one set of electoral laws dictate that certain types of traditionally low-turnout elections must be held using VBM to reduce costs.

There is both increased use of VBM in areas that already have it and further expansion in other states. Even the United States’ Postal Service has recognized the use of mail for balloting and has published online guidelines for election administrators to assist them in making decisions about the administration of mail elections, providing guidance on issues such as the design of ballots and the time frame for
sending out mailings. (United States Postal Service, n.d.) Vote By Mail has gained steam as a grassroots effort as well, with groups on both sides of the issue. One group advocating the use of VBM is the Vote By Mail Project (www.votebymailproject.org).

Vote By Mail’s popularity has resulted in a continual increase in its use in the last thirty years, and given recent election reform efforts, we can expect that increase to continue as various legislatures and communities seek to expand the use of VBM in their districts. Given the increasing use of VBM, it is important to consider the effects its implementation has on voters. The next chapter explores the theoretical basis as to how VBM could affect turnout, and investigates what past academic research examining VBM has shown.
Chapter 3

Theory of Turnout Effects

The conventional wisdom of election administrators and voters alike is that Vote By Mail will increase turnout. Most arguments, offered in newspaper editorials and “man on the street” interviews, focus on the removal of required travel to the polling place and the extended time frame allotted for the completion of one’s ballot. The assumption is that a reform which lowers the cost of voting should increase turnout. This argument is inherently predicated on the assumption that there are citizens who want to turn out to vote but for whom the cost of voting is prohibitive. The assumption that VBM will increase turnout was further propagated by early claims from election officials, namely following the first use for a federal office in Oregon in December of 1995 and January of 1996, when the special primary and general elections were held, respectively, to replace Senator Bob Packwood. Although these two elections did garner high turnout, these levels of participation cannot be contributed solely to VBM, as the circumstances of the election were far from ordinary. Firstly, the state of Oregon consistently has higher voter participation than most states. Also, these “Special” elections were indeed quite special: they were high profile elections held at an off-time of year, and their purpose was to replace a Senator who had resigned in disgrace following allegations of sexual misconduct with female staff members and lobbyists. The high profile nature of the election certainly raised awareness of the
election and stimulated turnout. Had this been a polling place election, the unusual circumstances of the election still would have predicted increased participation. Another factor of consideration is the office involved in this election was the high level office of Senator. Teixeira shows that the importance of the election has a direct relationship to the level of turnout, with presidential elections garnering higher turnout than state elections. (Teixeira, 1987)

Most recent research finds that the people who are stimulated to turnout in response to a reform which lowers the cost of voting appear to be very similar, in demographics and in policy preferences, to those who vote in the absence of such reforms. Barreto, Streb, Marks and Guerra demonstrate that absentee voters are older and more educated, but in their preferences they do not differ greatly from polling place voters. (Barreto et al., 2006) In a discussion of convenience voting institutions such as motor-voter, election day registration, early voting, relaxed absentee voting, and VBM, Berinsky notes that these type of convenience reforms ultimately only exacerbate the existing differential in the SES between voters and non-voters, by bringing more of the same kinds of voters into the electorate. (Berinsky, 2005) Research has also shown that those who are already likely to vote are those most likely to exhibit increased voting from the expansion of alternative “remote” voting methods. (Brown, 2005) There are several mechanisms through which VBM elections lower the costs of voting, such as reducing travel time to the polls and providing voters with a much longer window of time to cast their ballot. These lowered costs should produce increased turnout comparable to other convenience voting reforms. In addition to the turnout increase from the lowered cost of voting, the first use of VBM balloting in a district generally results in an informational campaign by the office of elections to prepare voters for the new voting method. This should result in higher turnout based on the increased awareness of an election and the novelty of the new method, which further entices people to participate, either because of personal
curiosity or increased social discussion and pressure. Subsequent elections will see a more moderate increase in levels of participation as the novelty of the new voting method wears off. There is also an increase in awareness of an election that is not the result of an informational campaign, but is a side benefit inherent in VBM balloting. In low-stimulus elections, such as city council elections, low participation can result because many voters may be unaware that an election is taking place. Receiving a ballot in the mail informs voters of such an election, and will result in higher turnout.

3.1 Theories of Electoral Participation

Angus Campbell’s seminal 1960 article classified the impetuses producing voter turnout into two categories: changes in the non-political conditions, or by stimulus conditions present at the election. (Campbell, 1960) There are a number of factors associated with the implementation of VBM which should, on their own, produce an increase in turnout. These factors include: an increased awareness of the election, the result of an informational campaign by election officials and media attention; and a cleaning of the voter registration rolls in preparation for the mailing of election materials. These components are tied to the newness of the method, and not the actual method itself. Thus, we would expect that after VBM has been implemented for some time, that some of the initial increase in turnout will decline as the balloting method is no longer novel. Hanmer and Traugott note that there may be differences in the electoral outcomes when a reform is implemented for the first time versus subsequent uses. (Hanmer & Traugott, 2004) In the long term, it may be that the increased turnout effects of Vote By Mail will decline, as people become used to this voting method. We could imagine that twenty years from now, when citizens have become accustomed to receiving their ballot in the mail, that the “reminder effect” that mail ballots currently receive will dissipate. That reaction may take years to achieve, and
during that time it is likely that some of the more advanced electronic and remote voting systems will be perfected and passed through the legislative process.

In 1997 Priscilla Southwell conducted a survey of Oregon voters to ascertain their opinions towards the Vote By Mail elections that were held state-wide in December of 1995 and January of 1996. (Southwell & Burchett, 2000a) Southwell conducted a follow-up survey of Oregon voters in 2003 and found that one-third of the respondents said that they voted more frequently under Vote By Mail. (Southwell, 2004)

Kousser and Mullin employ matching of mail ballot precincts in California with traditional polling place electoral precincts that share the same demographic characteristics. (Kousser & Mullin, 2007) They find that in Presidential and Gubernatorial general elections turnout is depressed by -2.6 to -2.9 percentage points in districts that use Vote By Mail. However, they find that in local special elections, which traditionally have low turnout, the effect is an increase of 7.6 percentage points. The data is restricted to elections in California, and the VBM cases they have are those designated VBM because of low population concentration. Several states which don’t otherwise permit Vote By Mail do allow its use in this case. However, the condition of living in a sparsely populated area that causes Vote By Mail to be used could also be correlated with other factors that influence the voting behavior of these citizens, resulting in omitted variable bias. Kousser and Mullin work around this potential bias by matching the demographic profile of each VBM district with a similarly profiled polling place district.

If voters in the United States are partially motivated to turn out because of social pressure, then perhaps the more anonymous method of Vote By Mail would cause a decline in participation. This is the hypothesis that the authors of the popular book *Freakonomics* argued in a column in 2005. (Dubner & Levitt, 2005) The authors
were commenting on research conducted showing that in Switzerland, Vote By Mail resulted in lower turnout as people did not experience the same social benefit from voting by mail, despite the lowered costs. (Funk, 2006) Indeed, among the 15% of voters in Oregon who did not prefer VBM, the most common concern (42%) cited was that this process rendered voting insignificant, a concern greater even than fraud (27%). (Southwell, 2004)

3.2 Contributing Factors to the Turnout Effect

The research and evidence offered above suggests that Vote By Mail increases turnout through lowering the cost of voting. (Olivier, 1996) However, there are effects related to the implementation of VBM which could increase turnout, but do not result from lowering the cost of voting. Some of the other possible reasons for an increase in turnout:

Cleaning of the Ballot Rolls
Generally the implementation of VBM results in the registration rolls being cleaned. Since every voter will have their ballot mailed to them, it is imperative that they are registered under the correct address. Election administrators frequently begin to check and purge the voters rolls, as they don’t want their election budget to bear the extra cost of postage to send ballots out to outdated or incorrect addresses. Voters are also more vigilant to make sure their registration is up to date to ensure they can vote. By cleaning the registration rolls, the number of registered voters (used as the denominator for turnout) becomes a more accurate reflection of the true number of voters, and thus turnout increases as the names of invalid or inactive voters are removed from the rolls.

Primary Elections
As mentioned earlier, in the hierarchical process of implementing Vote By Mail, one
of the last election types it is applied to is general elections. When used in primary elections we may expect to see different turnout levels and effects. Similar to most other states, in Oregon the primary elections for federal offices are closed primaries. This means that a voter can only cast votes among the candidates who share his partisan affiliation. Thus, only partisan registered voters are eligible to vote in primary elections. Although participation in primary elections is traditionally lower than it is in general elections, that provides an opportunity to see a greater turnout effect from VBM.

The restriction of allowing only a party’s own membership to select that party’s candidates inherently excludes those citizens who choose not to register as members of any one party. Simultaneously, this electoral restriction affects the turnout figure. When non-affiliated voters are eliminated from the voter base, creating this adjusted partisans-only number, there are two components that cause it to increase the overall turnout percentage. Obviously, the number of citizens who are possible participants is reduced to those who are registered partisans. The defining characteristic of this group is important, because partisans also tend to be more actively involved in politics and participate more readily.

3.3 Other Effects of VBM

While the effect of VBM on turnout is our primary interest, VBM does impact some other aspects of the election such as cost, public approval, ease of use, and fraud. After briefly exploring these effects, we then turn to our primary interest, the effect on turnout, and explore the theoretical arguments predict VBM should produce. There are, of course, a great many other aspects of an election that are affected by the implementation of such a transformational balloting method. Some of the research
to date has focused on a number of other topics related to the implementation of VBM:

3.3.1 Cost

The administrative cost of holding a VBM election is generally less expensive than that of a polling place election. Estimates by election officials find VBM elections to cost between one-third and one-half the amount of a normal election. A pilot of VBM in Stanislaus County, CA saved the county 50% of its usual election cost. (Matthews, 1996) These lowered costs are the result of reduced staffing because of the absence of fees associated with finding and renting polling places, and the cost of training and paying workers to staff the polling places. This change also drastically reduces the amount of planning and coordination required of the election officials. Further cost savings come from a reduction in the amount of voting equipment needed. A constitutional challenge in California upheld the use of VBM because of the benefit of reduced cost and the increased voter participation. (Magleby, 1987)

3.3.2 Campaign Effects

The extended time frame can affect voters who cast their ballot prior to the actual election date. One study of Pierce County and Spokane counties in Washington found that 22% of ballots were received three weeks prior to the election date, 28% were received two weeks prior, and 56% were received in the last week up to the election date.  

\footnote{Note that the percentages total 106% because these numbers include ballots received after the deadline, and thus were not ultimately counted.} When ballots are returned early, or over any period of time, there are a number of changes that can take place in the electoral context that could affect vote decision of a citizen. For example, new information could emerge about a candidate, or an important campaign event could happen.
All of the parameter changes which affect the voter’s experience also affect campaigns. The cost of electoral participation, the temporal relevance of campaign events, and even the nature of the electoral environment—VBM elections create new challenges for campaigns in terms of reaching potential voters. For example, campaigns or parties aren’t able to poll watch and use that information for phone banking. However, a similar benefit can be achieved from using the “poll book” that is created from the outer envelopes and published daily during the ballot return period. Campaigns could still obtain this information to aid in their efforts to contact voters, but it should be noted that a large percentage of ballots are usually received on election day, and campaigns will not be able to do the same mobilization throughout the day as they would with poll watching. However, the ability to winnow the number of remaining voters over the longer time period for ballot returns may help campaigns to focus their efforts and possibly save money.

3.3.3 Ease of Use

VBM has proved to be popular with both election administrators and voters alike. Election officials often tout the time and headaches saved by the streamlined and consolidate balloting method. Public opinion data gathered from voters in Oregon confirms that citizens do prefer VBM. In 1996 a survey stated that 77% of voters preferred Vote By Mail, with the vast majority stating that their preference was due to the ease and convenience of VBM provides. (Southwell & Burchett, 2000a) Continued use in Oregon has not caused support to wane, as a follow-up survey in 2003 found 81% of voters rated Vote By Mail favorably. (Southwell, 2004)
3.3.4 Fraud

Not surprisingly, there has been a great deal of concern voiced, particularly in the media, about the possibilities for fraud in VBM elections. The impersonal nature of the elections would seemingly allow for an individual to easily influence large numbers of ballots undetected, for example by stealing all the ballots to be delivered to an apartment complex. Although there have been some instances of fraud, as there are in every election, on the whole the increased incidence of fraud that was projected has not proven true in VBM elections so far.

There are many reasons to believe that VBM elections may actually be less vulnerable to fraud, as the aspects of the voting process which allow for voters to verify their ballots also provide validity checks throughout the voting process. There is ample opportunity for both election administrators and voters to confirm the integrity of a ballot, even more so than exists in polling place voting. These checks not only reduce the instance of fraud being successfully perpetrated, but further prevent false negative errors—valid ballots that are mistakenly marked as fraudulent or erroneous. It seems that one of the most risky times for fraud in VBM elections is when the ballots are in transit, both to and from the voter. However, a benefit of VBM elections is how easily voters can check on the status of their ballot, and thus prevent instances of fraud. If a voter does not receive their ballot, they can contact the county election office, and request a replacement ballot. After verifying the voter registration status of the citizen, a replacement ballot is issued, and the previously issued ballot is invalidated. Similarly, voters can confirm that their ballot was received by calling the county election office, which keeps a log of all voters whose ballots have been received.

One set of fraud litigation related to VBM revolves around whether parties or organizations could pre-stamp ballots for voters. The courts ruled this illegal, under the claim that affixing a stamp constituted vote-buying. On the other side of the
issue, during the early implementations of VBM, voters sued because the necessity of putting a stamp on a ballot to cast it could be considered a poll tax, which was also ruled illegal. It is because of this litigation that ballots in VBM elections can be returned to designated drop boxes in the election district OR via postal mail, so that no one is required to use a stamp.

Overall, in Vote By Mail elections, as in any election, there may be some anecdotal evidence of fraud, but if fraud was really occurring because of vulnerabilities inherent in the VBM balloting method, we would expect to see a uniform rise in the rate of fraud across all VBM elections across the board, and that has not happened.

3.3.5 Partisan Effects

Another argument in opposition to VBM stemmed from concern over potential partisan benefit from use of this method. Citizens were very worried about this, but it does not appear that VBM has strong partisan effects. Most of the basis for concern was people extrapolating the idea that Republicans are more likely to be absentee voters than Democrats, so VBM would benefit the Republican party. However, as previously addressed, VBM differs from absentee voting in that voters do not have to take the extra step to receive their ballot by mail, it is an institutional change that affects everyone equally. In Southwell’s 2003 survey, she found that Oregon voters preferred Vote By Mail, across all demographics and partisanship, and suggested that it was unlikely that the turnout effect would benefit one party over another. (Southwell, 2004)

While interesting, the side effects raised in this section are not addressed in the following analysis, which focuses on the main effect of Vote By Mail on turnout, and the corresponding shift in the median voter.
3.4 Expected Findings

Electoral theory informs us that as the cost of voting is lowered, more people will participate. Past research has found that when “ease of voting” reforms are implemented, there is a rise in the participation by voters, although these increases are moderate, and may vary based on the type of election. We predict that Vote By Mail will produce an increase in voter turnout, however, we expect that this effect will vary based on the type of the election and how salient the election is. The turnout effect should be larger in lower salience elections, such as local special elections, because fewer people are aware of these elections to begin with. Thus, the benefit that comes from reminding them of an election by sending a ballot in the mail will be greater. The following chapter will test these predictions to investigate the effect of Vote By Mail on voter turnout.
Chapter 4

Effect of VBM on Turnout

The assumption is that during any election, there are citizens who abstain because of the burden of time involved in voting, and the resulting inconvenience to their schedule. In the classic model of the calculus of voting, these time requirements are captured by the cost term. Since Vote By Mail reduces the cost of voting by reminding citizens of the election and providing a more convenient voting experience, we expect an increase in voter turnout.

4.1 Data

This project involved the creation of a large data set of election returns from municipal, county, and state level elections. I initially set out to obtain the data from all VBM elections that have been held in the United States, as well as comparison cases of elections held under non-VBM balloting. The search was targeted towards the seventeen states that are known to have conducted VBM elections: Alaska, Arizona, California, Colorado, Florida, Kansas, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, New York, North Dakota, Oregon, Utah and Washington. However, due to problems with the maintenance and accessibility of some of these electoral records,
the data here represent a subset of the universe of cases. The main determining factor in case selection of Vote By Mail elections was simply the availability of data. There are known Vote By Mail elections that are not included here, because I was unable to obtain the necessary variable information.

The selection of non-VBM elections used as control cases was first targeted at elections from the same election district. Since VBM is usually tried on a limited basis before being implemented permanently, it creates a "natural experiment" of sorts where in a given district a traditional election will be held, then a Vote By Mail election, and then they will revert back to the traditional election format. While this pattern frequently appeared in the data, it was not always possible to obtain exact matching comparison cases within an electoral district because the ballot content or the electoral characteristics differed between VBM and traditional elections. Since exact control cases were not available for every district, the search for additional non-VBM election data was targeted towards other election districts within the same counties and states where VBM cases appeared.

The data were primarily obtained from election results posted on official websites of Secretaries of State, County Clerks, and local election administrators, and supplemented by election returns as reported by election officials via fax and mail when results were not posted electronically. The most common problem was simply that election returns were not available, or that there was crucial data missing, most notably the information necessary to construct the turnout figure (either a turnout percentage or the number of registered voters at the time of the election). As most of the data was obtained electronically, there is a bias towards more recent cases, as the practice of posting election returns online has increased in recent years. However, this bias is not of grave concern, since the frequency of use of VBM has also increased in recent years. Despite the absence of some cases, the data here do contain variation.
in terms of geography, frequency of use of VBM, and election type.

Table 4.1: Cases of Vote By Mail by State

<table>
<thead>
<tr>
<th>State</th>
<th>Vote By Mail</th>
<th>Total Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Alaska</td>
<td>24</td>
<td>17</td>
</tr>
<tr>
<td>Arizona</td>
<td>193</td>
<td>55</td>
</tr>
<tr>
<td>California</td>
<td>572</td>
<td>91</td>
</tr>
<tr>
<td>Colorado</td>
<td>263</td>
<td>147</td>
</tr>
<tr>
<td>Florida</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td>Kansas</td>
<td>149</td>
<td>48</td>
</tr>
<tr>
<td>Oregon</td>
<td>37</td>
<td>793</td>
</tr>
<tr>
<td>Washington</td>
<td>417</td>
<td>136</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2015</td>
<td>1295</td>
</tr>
</tbody>
</table>

The data obtained includes VBM elections occurring in eight states: Alaska, Arizona, California, Colorado, Florida, Kansas, Oregon, and Washington. In total, the data contains 3310 cases, with 1295 of them VBM elections, and the remainder being non-VBM control cases for comparison. Table 4.1 shows the breakdown of VBM and non-VBM cases by state. The cases in this data set are from elections that occurred between 1965 and 2007, with VBM elections from 1983 onwards. Table 4.2 shows the observations by year and VBM.

4.1.1 Variables Collected

The unit of analysis is a unique government-defined electoral district for a unique election date. Each case represents the data associated with a specific district for a specific election. The definitions and sizes of these electoral districts vary greatly, and since many elections include ballot items for several electoral districts simultaneously, it is the case that there are voters whose participation in one given election is rep-
Table 4.2: Cases of Vote By Mail by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Vote By Mail</th>
<th>No</th>
<th>Yes</th>
<th>Total Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965 - 1970</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1971 - 1975</td>
<td>7</td>
<td>0</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>1976 - 1980</td>
<td>19</td>
<td>0</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>1981 - 1985</td>
<td>25</td>
<td>3</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>1986 - 1990</td>
<td>53</td>
<td>13</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>1991 - 1995</td>
<td>318</td>
<td>67</td>
<td>385</td>
<td></td>
</tr>
<tr>
<td>1996 - 2000</td>
<td>806</td>
<td>407</td>
<td>1213</td>
<td></td>
</tr>
<tr>
<td>2001 - 2007</td>
<td>779</td>
<td>805</td>
<td>1584</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2015</td>
<td>1295</td>
<td>3310</td>
<td></td>
</tr>
</tbody>
</table>

represented in multiple cases in the data set, because that voter was a part of multiple districts. For example, a voter may reside in Marin County, California, and within that county, also live in the city of Tiburon and the Mt. Tam School District.

*Date* This is the date on which the election was held. Although in Vote By Mail elections the ballot completion and return process takes place over a period of approximately two weeks, there is still a designated election date which is the deadline by which ballots must be received. In instances where an election encompassing a larger geographic region is being administered within multiple smaller district elements of that region (such as a state-wide election being held within counties), then the deadline for receipt of ballots in a VBM district will be the same election date on which votes will be cast in a traditional polling place district.

*State* The state of the electoral district for each case. The states represented in the data are: Alaska, Arizona, California, Colorado, Florida, Kansas, Oregon, and Washington.

*County* The county of the electoral district for each case. Note that Alaska does
not use county designations, so all Alaska cases were given the county name “Alaska” to prevent them from being dropped in the analysis. The boundaries of some school districts cover parts of multiple counties. In this instance, when the names of the counties are known, those counties were listed as one entry together, in alphabetical order and separated by spaces. However, some election returns and government documents list the counties in this instance simply as “multiple” instead of specifying the names of the multiple counties.

District Name The name of the unique government-defined electoral district. If the case represented an entire county, the district name is identical to the name given in the County variable.

District Size This variable describes the district in terms of size and function, with the possible values being: {municipal, county, public service, school, legislative, state} School district designations are mutually exclusive within school levels (one primary education district versus another), however there may be multiple levels of education districts for a given community. Municipal district designations are mutually exclusive (a voter is not included in more than one municipality), and these districts are usually the smallest of the district elements a given voter is included in. Note, the exception to this statement is when any of the other district types contains only a subset of a city; usually because the municipal district is a large city. For example, in the city of Portland, Oregon, there are multiple school districts contained within the city. Generally though, it is the case that municipal designations are the most smallest elements and thus each of the previous district designations (county, school, public service) are composed of multiple municipalities. The designation “legislative” includes three state assembly districts, five congressional districts, and one state senate district. The variable response “county” includes not only the whole counties, but also two county wide partisan primary elections.
Primary, Special, Pres, Gov, Sen, Cong These six variables are all binary variables which describe the electoral conditions of the given case. Respectively, the variables state whether the election was a primary election (of any level), if it was a special election, and if it contained a candidate item for the office of President, Governor, Senator, or Congress. The office variables of Pres, Sen, Cong, and Gov were translated into dummy variables to account for the highest level office on the ballot. We know that Presidential elections and Congressional elections have different traditionally different levels of participation.

Election Title The election title is recorded based on the title given on the ballot, the notice of election, or the pre-election pamphlet, as distributed by the election administrator.

VBM This is a binary variable taking on the value of 1 if the election was conducted completely via mail ballot, and 0 otherwise. The 0 designation includes elections conducted with a mix of polling place, absentee, provisional, and early voting. The classification of Vote By Mail = 1 does not include cases from precincts designated as Vote By Mail due to sparse population concentration, because of potential omitted variable bias.

Registered Voters The number of registered voters for the specific election district given, at the time of the election. Usually taken from the election results. This is the number of voters registered, NOT the number eligible.

Ballots Cast Total number of ballots cast within the district for the given election. Note this is not the number of ballots cast for a specific ballot item.
Percent Turnout This is an alternative measure of turnout to be used when the registered voters data or ballots cast data is missing. When a value appears for this variable, it is the direct value that was reported on the election report or by a secondary organization reporting summary statistics. For example, the Oregon School Board Association provided a record of educational funding items appearing in state elections, along with the turnout percentages.

4.1.2 Secondary Variables

The raw data described above was entered into STATA and used to generate several additional variables.

Turnout was calculated by dividing ballots cast by the number of reported registered voters. In some instances, data was missing for one or both of those variables. If this data was missing, but the election report gave turnout in a percentage form, the percentage was used, and is appears in the data set as the variable percent turnout. When the number of registered voters was given along with the turnout percentage, but ballots cast was missing, the ballots cast number was reverse calculated by multiplying the turnout percentage times the number of registered voters, and rounding up to the nearest whole voter.

If Ballots Cast was missing, but there was data regarding yes votes and no votes on a given question item, the yes votes and no votes were added together to create the variable total votes, and total votes was divided by registered voters to give an approximation of turnout. It is noted that for elections with multiple items, particularly those with high level candidate offices, the turnout amount that is constructed in this way is likely to be lower than the actual turnout of the election, since there will be voters who cast a ballot, but skipped this ballot item. For some elections though,
using the total votes as an approximation of total ballots cast is less of a problem, since the question from which the total votes amount was calculated may be the only ballot item, or one of a very small number of items, and thus it is unlikely that a voter would cast a ballot but not vote on the only item on the ballot.

*Odd* A dummy variable which states whether the election took place in an odd numbered year.

*President* An election was coded President = 1 if there was a presidential race on the ballot, and it was not a primary or special election.

*Congressional* An election was designated as congressional if it was a general election for the office of US Senate or US House of Representatives. If a presidential race appeared on the same ballot, the election is coded as a 1 for President and as a 0 for congressional. Since Presidential races are of higher salience than congressional elections, an increase in turnout for an election with both races is more likely due to the presidential race. If the race was a primary or a special election it was coded as 0 for the Congressional variable.

*Primary* This variable was coded = 1 if a primary election of any level, including presidential (n = 202 cases) and Congressional primaries (n = 239). This also includes special primary elections (n = 41). The special primary congressional races represent the turnout from 38 different counties in Oregon for the December 5, 1995 special election to replace Sen. Bob Packwood.

*Special* Using the election descriptor variables from above, an election was coded = 1 if it was a special election, excluding special primary elections.
Interaction Terms Interaction terms were generated for the interaction of VBM and President, Congressional, Special and Primary variables.

4.2 Findings

Regression analysis was used to test the effect of Vote By Mail on turnout. Unique numbers were generated from the state and county codes, and were used as the unique identifiers for OLS fixed-effects regression. Table 4.3 shows the overall effect of Vote By Mail, with the coefficients relative to County and Local general elections (the dropped category).

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Coefficient</th>
<th>S.E.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote By Mail</td>
<td>0.1013</td>
<td>0.0057</td>
<td>0.000</td>
</tr>
<tr>
<td>Presidential Race</td>
<td>0.3644</td>
<td>0.0081</td>
<td>0.000</td>
</tr>
<tr>
<td>Congressional Race</td>
<td>0.2234</td>
<td>0.0083</td>
<td>0.000</td>
</tr>
<tr>
<td>Primary Election</td>
<td>0.0107</td>
<td>0.0079</td>
<td>0.180</td>
</tr>
<tr>
<td>Special Election</td>
<td>-0.0155</td>
<td>0.0076</td>
<td>0.041</td>
</tr>
<tr>
<td>Registered Voters</td>
<td>3.71 x 10^{-9}</td>
<td>2.09 x 10^{-8}</td>
<td>0.859</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.3864</td>
<td>0.0062</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note: Ordinary least squares estimates with state and county fixed-effects.

The regression in Table 4.3 shows Vote By Mail has a 10% increase on turnout across all elections, a finding that is consistent with past academic research on the turnout effect of VBM. The data here strengthen this finding, as the result holds even with a more diverse data set than others have used. Comparing this 10% turnout
effect to the effect a presidential election has on turnout, the VBM effect is approximately one-third the size of the participation increase stimulated by a presidential race. The baseline turnout is given by the intercept, and is that of General County and Local elections, to which all other coefficients are relative.

The magnitude and directionality of the various election categories’ effects are in the order expected given the salience hypothesis of turnout; the highest salience race, *presidential*, has the largest coefficient, then *congressional*, then *primary*, and finally *special* elections, with the smallest (and negative) effect.

The basic findings of the turnout effects of Vote By Mail conform to our predictions; namely that Vote By Mail will increase turnout. To expand upon these findings, we must further consider the salience effect of the various election categories. If the salience of an election impacts turnout, as the coefficients on the election description variables indicate it does, then we may also expect the effect of VBM to be mediated by the salience of the election.

The hypothesis is that the mechanism by which Vote By Mail increases turnout is by raising the salience level of an election. In the midst of his busy life, even a dutiful voter will occasionally overlook the occurrence of an election, and his absence in participating is not necessarily an active decision to abstain, but simply an omission from lack of consciousness. A Vote By Mail election is unique in that every registered voter in essence receives notification of the election by receipt of their ballot. The ballot informs the unaware that an election is taking place, and if the voter was already aware of the election, then the ballot serves as a “reminder.” We hypothesize that this combination of informing and reminding voters is the mechanism by which VBM stimulates additional turnout.
If this mechanism is correct, then the turnout effect of VBM would be moderated by the salience level of the election. In a high salience election, such as a Presidential general election, it is likely that information levels are already high; most citizens are aware that an election is taking place, and there is little additional benefit to be received through either the informing or reminding mechanisms upon receipt of the ballot. For low salience elections though, such as local school district elections, the information and awareness are generally very low, and there is ample opportunity for VBM to increase turnout by informing previously unaware voters.

To include in our analysis the effect of Vote By Mail, conditioned on the salience of the election, interaction terms were generated by interacting the use of VBM with the descriptive election variables. Table 4.4 details the results:

Table 4.4: Effect of Vote By Mail on Turnout with Interaction Effects

<table>
<thead>
<tr>
<th>Dependent Variable = Percentage of Voter Turnout</th>
<th>Coefficient</th>
<th>S.E.</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote By Mail</td>
<td>0.1417</td>
<td>0.0108</td>
<td>0.000</td>
</tr>
<tr>
<td>Presidential Race</td>
<td>0.3885</td>
<td>0.0089</td>
<td>0.000</td>
</tr>
<tr>
<td>Congressional Race</td>
<td>0.2537</td>
<td>0.0096</td>
<td>0.000</td>
</tr>
<tr>
<td>Primary Election</td>
<td>0.0331</td>
<td>0.0092</td>
<td>0.000</td>
</tr>
<tr>
<td>Special Election</td>
<td>-0.0347</td>
<td>0.0096</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM*Presidential</td>
<td>-0.1083</td>
<td>0.0189</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM*Congressional</td>
<td>-0.1068</td>
<td>0.0177</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM*Primary</td>
<td>-0.0716</td>
<td>0.0146</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM*Special</td>
<td>0.0093</td>
<td>0.0147</td>
<td>0.528</td>
</tr>
<tr>
<td>Registered Voters</td>
<td>-9.06x10^-9</td>
<td>2.06x10^-8</td>
<td>0.660</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.3757</td>
<td>0.0067</td>
<td>0.000</td>
</tr>
</tbody>
</table>

\[ R^2 \] 0.6583
Observations \( N = 2921 \)

Note: Ordinary least squares estimates with state and county fixed-effects.

The basic (non-interacted) variables from the regression in Table 4.3 remain, as does the relative dropped category of “General County and Local elections.”
coefficients on the interaction terms in Table 4.4 confirm our hypothesis that VBM has a differential effect related to the baseline salience level for that type of election. The negative coefficients on the interaction terms for presidential and congressional general elections says that the effect of VBM is decreased in these high salience elections, while Primary elections receive a greater effect and Special elections still greater. The lincom command in STATA was used to generate composite effects and standard errors for the linear combinations of the main effect of Vote By Mail and the interaction effect for each election description variable. The composite effects are summarized in Table 4.5:

Table 4.5: Composite of Main Effect and Interaction Effects of Vote By Mail on Turnout

<table>
<thead>
<tr>
<th>Election Type</th>
<th>Coefficient</th>
<th>S.E.</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presidential Election</td>
<td>0.0335</td>
<td>0.0154</td>
<td>0.030</td>
</tr>
<tr>
<td>Congressional Election</td>
<td>0.0350</td>
<td>0.0137</td>
<td>0.011</td>
</tr>
<tr>
<td>Primary Election</td>
<td>0.0702</td>
<td>0.0099</td>
<td>0.000</td>
</tr>
<tr>
<td>General County and Local Elections</td>
<td>0.1417</td>
<td>0.0108</td>
<td>0.000</td>
</tr>
<tr>
<td>Special Election</td>
<td>0.1511</td>
<td>0.0099</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note: Composite effects for each category are equal to the sum of the main effect of Vote By Mail and the interaction effect of Vote By Mail for that electoral category. Thus, the effect on General County and Local elections is simply the main effect.

The composite effects in Table 4.5 support the hypothesis that the turnout effect of Vote By Mail is conditioned on the salience level of the election. Special elections continue to receive the greatest turnout effect from Vote By Mail, an effect of 15 percentage points, which is 5 times the 3 point effect the high salience Presidential general elections receive. General county and local elections receive a 14 point increase in turnout, similar to that of special elections, which also seems reasonable given the lower level of salience of local elections.

The greater effect of VBM is in these lower level elections which encompass a
smaller geographic region—local municipal and district elections, as opposed to state and federal elections. Looking at the coefficients on the interaction terms in Table 4.5, we see that the composite effect of VBM on Presidential elections is smaller than that for Primary elections, which is smaller than the effect on Special elections. In terms of the conjecture that VBM has the greatest opportunity for a large turnout effect in low salience elections, these results make sense, as local elections tend to have much lower turnout rates than state or federal elections, regardless of the voting method used.

These results are promising, however the variables thus far do not fully demonstrate the interaction of Vote By Mail and electoral salience. Specifically, the variables Primary and Special are still aggregating their effects within the variable. To help uncover the mediating effect of salience, the variables Primary and Special were split into two new variables each: High Salience Primary and Low Salience Primary, and High Salience Special and Low Salience Special. The primary elections are coded as High Salience if they contained the office of President, U.S. Senator, U.S. Representative, or Governor. All other primary elections were coded as Low Salience. The Low Salience category mainly includes county and local primary elections. Special elections were divided into High and Low Salience categories in the same fashion. The basic results of this regression including these new categories are given in Table 4.6 below.

Similar to the previous regression tables, we now include interaction effects for the interaction of Vote By Mail with the election description variables. Table 4.7 has the regression results including the interaction terms:

Again, the lincom in STATA was used to produce linear combinations of the main
Table 4.6: Effect of Vote By Mail and Salience of Election on Turnout

Dependent Variable = Percentage of Voter Turnout

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>S.E.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote By Mail</td>
<td>0.0976</td>
<td>0.0055</td>
<td>0.000</td>
</tr>
<tr>
<td>Presidential General Election</td>
<td>0.3693</td>
<td>0.0079</td>
<td>0.000</td>
</tr>
<tr>
<td>Congressional General Election</td>
<td>0.2294</td>
<td>0.0081</td>
<td>0.000</td>
</tr>
<tr>
<td>High Salience Primary Election</td>
<td>0.0432</td>
<td>0.0085</td>
<td>0.000</td>
</tr>
<tr>
<td>Low Salience Primary Election</td>
<td>-0.0420</td>
<td>0.0104</td>
<td>0.000</td>
</tr>
<tr>
<td>High Salience Special Election</td>
<td>0.1649</td>
<td>0.0199</td>
<td>0.000</td>
</tr>
<tr>
<td>Low Salience Special Election</td>
<td>-0.0222</td>
<td>0.0074</td>
<td>0.003</td>
</tr>
<tr>
<td>Registered Voters</td>
<td>-2.20 x 10^{-9}</td>
<td>2.04 x 10^{-8}</td>
<td>0.281</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.3854</td>
<td>0.0061</td>
<td>0.000</td>
</tr>
</tbody>
</table>

\[R^2\] 0.6651
Observations  N= 2920

Note: Ordinary least squares estimates with state and county fixed-effects.

effect of VBM added to the interaction effect of VBM with each election description category. The composite effects are given in Table 4.8, and are ordered from lowest VBM turnout effect, for Presidential general elections, to highest VBM turnout effect, that of High Salience Special elections.

The further decomposition of the elections into the high and low salience categories for the special and primary variables provides a still richer picture of the effect of Vote By Mail. Comparing the composite effects of the variables in Table 4.5 to those in Table 4.8, we see that the 7 point turnout effect on all Primary elections in Table 4.5, has been separated into a turnout effect of 6 points for High Salience Primary elections and 10 point for Low Salience Primary elections. The effects from this disaggregation of the Primary election conform to the hypothesis that lower salience elections will receive a greater boost from the use of VBM.
Table 4.7: Effect of Vote By Mail, Salience of Election, and Interaction Effects on Turnout

$Dependent\ Variable = \text{Percentage of Voter Turnout}$

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>S.E.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote By Mail</td>
<td>0.1431</td>
<td>0.0106</td>
<td>0.000</td>
</tr>
<tr>
<td>Presidential General Election</td>
<td>0.3918</td>
<td>0.0088</td>
<td>0.000</td>
</tr>
<tr>
<td>Congressional General Election</td>
<td>0.2577</td>
<td>0.0094</td>
<td>0.000</td>
</tr>
<tr>
<td>High Salience Primary Election</td>
<td>0.0634</td>
<td>0.0096</td>
<td>0.000</td>
</tr>
<tr>
<td>Low Salience Primary Election</td>
<td>-0.0628</td>
<td>0.0149</td>
<td>0.000</td>
</tr>
<tr>
<td>High Salience Special Election</td>
<td>-0.0117</td>
<td>0.0180</td>
<td>0.516</td>
</tr>
<tr>
<td>Low Salience Special Election</td>
<td>-0.0395</td>
<td>0.0099</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM*Presidential General Election</td>
<td>-0.1055</td>
<td>0.0186</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM*Congressional General Election</td>
<td>-0.1056</td>
<td>0.0173</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM*High Salience Primary Election</td>
<td>-0.0817</td>
<td>0.0153</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM*Low Salience Primary Election</td>
<td>-0.0442</td>
<td>0.0244</td>
<td>0.071</td>
</tr>
<tr>
<td>VBM*High Salience Special Election</td>
<td>0.0561</td>
<td>0.0247</td>
<td>0.023</td>
</tr>
<tr>
<td>VBM*Low Salience Special Election</td>
<td>0.0047</td>
<td>0.0150</td>
<td>0.754</td>
</tr>
<tr>
<td>Registered Voters</td>
<td>-1.67 x 10^{-8}</td>
<td>2.02 x 10^{-8}</td>
<td>0.408</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.3733</td>
<td>0.0066</td>
<td>0.000</td>
</tr>
</tbody>
</table>

$R^2 = 0.6727$

Observations N= 2920

Note: Ordinary least squares estimates with state and county fixed-effects.

More puzzling is the Vote By Mail turnout effect on the High and Low Salience Special election categories. Here, the effect of 15 points for low salience elections is eclipsed by the 20 point effect for high salience special elections. Given that up until now, our general hypothesis that the turnout effect of VBM decreases as the salience of the election increases, has held true, why in this category do we see the opposite relationship between high and low salience elections? One explanation could be that while Vote By Mail has the greatest potential for turnout effects in lower salience elections, there is some individual threshold of interest that must be met for each voter to participate. The salience interaction with VBM has been based on the assumption that there are a number of voters out there who generally vote and want to
<table>
<thead>
<tr>
<th>Category</th>
<th>Coefficient</th>
<th>S.E.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presidential General Elections</td>
<td>0.037</td>
<td>0.015</td>
<td>0.013</td>
</tr>
<tr>
<td>Congressional General Elections</td>
<td>0.037</td>
<td>0.013</td>
<td>0.005</td>
</tr>
<tr>
<td>High Salience Primary Elections</td>
<td>0.061</td>
<td>0.011</td>
<td>0.000</td>
</tr>
<tr>
<td>Low Salience Primary Elections</td>
<td>0.099</td>
<td>0.022</td>
<td>0.000</td>
</tr>
<tr>
<td>General County and Local Elections</td>
<td>0.144</td>
<td>0.011</td>
<td>0.000</td>
</tr>
<tr>
<td>Low Salience Special Elections</td>
<td>0.148</td>
<td>0.011</td>
<td>0.000</td>
</tr>
<tr>
<td>High Salience Special Elections</td>
<td>0.199</td>
<td>0.022</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*Note:* Composite effects for each category are equal to the sum of the main effect of Vote By Mail and the interaction effect of Vote By Mail for that electoral category. Thus, the effect on General County and Local elections is simply the main effect.

do so, but may not always be informed about when an election is taking place, and so by announcing or reminding about an election, the ballot picks up greater turnout. One example of this threshold would be the increase in turnout in presidential general elections. For some voters in the country, the minimum salience required for them to participate is the highest level- the Presidential general election. For any other election, the salience is not above their threshold and they will not participate. Based simply on the lower turnout rates of smaller districts, all voters must have their own threshold salience levels for participation. The case may be that the distribution of these salience levels is not smooth, but at the lowest levels of salience may appear to be more of a step function. At the lowest levels of salience, there is great opportunity to have a large turnout effect from VBM, but the benefit of notifying voters does not translate into increased turnout because these elections are so low salience that they do not meet the minimum salience level for participation. In a presidential election, these voters are already informed, so the “reminder” built into VBM causes little change in turnout. For elections of somewhat lower salience, a county election, for example, the reminder from receiving a mail ballot will have a larger effect, as there are more voters in the category who want to participate but were unaware of the election.
The other extreme case is that when a voter receives their ballot and becomes informed or reminded about an upcoming election, but that election is so low salience that the voter actively chooses not to participate. Using VBM in a local town election for dogcatcher may not produce a large benefit, even though this is the lowest salience election, because it is too low salience to receive a benefit from reminding or alerting voters. In the category of special elections, we could think of the California gubernatorial recall election as an example of a high salience special election, and for a low salience special election, a local special fire district funding vote. If a voter is not interested enough to ever vote in the special local fire district election, then reminding the voter about that election will not increase turnout.

Another interesting effect in this table is that the general county and local elections receive a 14.4 percentage point turnout effect from Vote By Mail, while the low salience primary elections, which are generally the county and local primary elections, receive a 14.8 point increase in turnout. Although this increase in turnout appears to be quite similar, looking at the predicted turnout, as shown in Table 4.9, shows that the low salience special elections are still performing with a lower expected rate of turnout.

The values in Table 4.9 were calculated using the regression model and turning “on” the VBM effect and the appropriate election category effect and interaction effect. These linear combinations were computed in STATA using the lincom command to produce standard errors and p-values.
<table>
<thead>
<tr>
<th>Election Category</th>
<th>Turnout</th>
<th>S.E.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>VBM Presidential General Elections</td>
<td>0.807</td>
<td>0.014</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM Congressional General Elections</td>
<td>0.672</td>
<td>0.011</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM High Salience Special Elections</td>
<td>0.641</td>
<td>0.020</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM General County and Local Elections</td>
<td>0.516</td>
<td>0.009</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM High Salience Primary Elections</td>
<td>0.503</td>
<td>0.009</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM Low Salience Special Elections</td>
<td>0.482</td>
<td>0.006</td>
<td>0.000</td>
</tr>
<tr>
<td>VBM Low Salience Primary Elections</td>
<td>0.406</td>
<td>0.017</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*Note:* Composite effects for each category are equal to (Constant + Category + VBM + VBM x Category) The sum of the constant, plus the category effect, plus the main effect of Vote By Mail plus the interaction effect of Vote By Mail for that electoral category. Thus, the effect on General County and Local elections is simply the main effect plus VBM main effect.

### 4.2.1 State Effects

To investigate whether the effect of Vote By Mail varies by state, separate regressions were run for each state. This method was selected over other methods, such as including state dummy variables in the larger regression, because the inter-state variation of both the baseline level of electoral participation, as well as the varying effects on turnout of the election categories (Presidential, congressional, primary, and special). It is not only the baseline level of turnout that varies by state (the intercept); the effect of an electoral switch such as a Presidential election also varies by state. These variable effects make sense, since states are bundles of electoral laws that, by definition, affect the level and nature of participation.

Note that in the state coefficients on Vote By Mail the coefficients of larger magnitude are generally from states with relatively few cases of Vote By Mail elections. States that have a more established experience with Vote By Mail, such as Washington and Oregon, have comparatively lower effects. This may be because of a
### Table 4.10: State Effect of VBM on Turnout

<table>
<thead>
<tr>
<th>State</th>
<th>Constant</th>
<th>Coeff. on VBM</th>
<th>S.E.</th>
<th>p-value</th>
<th>VBM</th>
<th>non-VBM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>.247</td>
<td>-.0193</td>
<td>.065</td>
<td>.768</td>
<td>17</td>
<td>24</td>
</tr>
<tr>
<td>Washington</td>
<td>.498</td>
<td>.0581</td>
<td>.008</td>
<td>.000</td>
<td>136</td>
<td>417</td>
</tr>
<tr>
<td>Oregon</td>
<td>.643</td>
<td>.0699</td>
<td>.007</td>
<td>.000</td>
<td>793</td>
<td>336</td>
</tr>
<tr>
<td>California</td>
<td>.293</td>
<td>.1224</td>
<td>.014</td>
<td>.000</td>
<td>91</td>
<td>572</td>
</tr>
<tr>
<td>Colorado</td>
<td>.339</td>
<td>.1446</td>
<td>.018</td>
<td>.000</td>
<td>147</td>
<td>263</td>
</tr>
<tr>
<td>Arizona</td>
<td>.253</td>
<td>.1515</td>
<td>.028</td>
<td>.000</td>
<td>55</td>
<td>193</td>
</tr>
<tr>
<td>Florida</td>
<td>.413</td>
<td>.2345</td>
<td>.073</td>
<td>.005</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td>Kansas</td>
<td>.315</td>
<td>.2753</td>
<td>.055</td>
<td>.000</td>
<td>48</td>
<td>149</td>
</tr>
</tbody>
</table>

Note: Fixed effects OLS regression of regvoters, vbm, president, congress, primary, special on Turnout. Conducted independently for each state.

tapering off effect as citizens in these states become used to this method of voting and it fails to have the same informative impact. Also, both Oregon and Washington had historically high levels of absentee and permanent absentee voting, so it may be that these states never received the same kind of increase in turnout in VBM elections.

### 4.3 Implications

The findings of the turnout effect of Vote By Mail as discussed here both confirm previous research that has found an increase, but more importantly, by breaking the effect down into smaller pieces, The finding of an increased turnout effect in the lower salience and smaller district size elections is important because of the traditionally low turnout in local elections. Beyond the implication of lack of civic engagement and participation in democracy, research suggests that low turnout in local elections can lead to less representation of minorities in city council and mayoral races. (Hajnal & Trounstine, 2005)
Chapter 5

Effect of Vote By Mail on Median Voter

In the previous chapter, we demonstrated that Vote By Mail has a positive increase of approximately ten percentage points on the absolute turnout, on average, across all elections in the United States. The range of the turnout effect of VBM varies significantly with the salience of the election, with turnout effects ranging from 3 points in presidential general elections to 20 points in high salience special elections. Although turnout levels on their own are an important indicator of the health of democracy, we also care about how Vote By Mail substantively changes the outcome of elections. The same institutional factors which affect the absolute amount of participation may also affect the nature of the outcomes, through the changing demographics of the electorate. How do the policy tastes of the median voter differ in a VBM election compared to a traditional polling places election? What can we say about who comprises the electorate and the preferences they hold? How is voters’ balloting behavior affected by VBM? Voters in a VBM election may have different preferences than those voters who participate in polling place elections. ¹ Investigat-

¹This could be a result of the influence of the additional average amount of 10 percentage points of voters that VBM elections see an increase in turnout from, or it could be that VBM elections draw a different group of voters, so that actually more than the 10 points are voters who did not participate
ing the policy preferences of the electorate on ballot question items and specifically its voting behavior on the issue of school bonds can shed some light on these questions.

5.1 Characteristics of the Electorate

Given the increase in turnout, what are the characteristics of the newly expanded voter group? How do their policy preferences compare with voters who participate in traditional polling place elections? We are interested not just in how many people turn out, but who those people are and what kind of political preferences they hold. Much of the research on election reforms that increase participation by lowering the costs of voting find that the new voters who comprise the numeric increase in turnout appear to have policy preferences very similar to the voters who are already participating. Speaking in support of VBM, proponents often argue that through its convenience, VBM will help promote voting among those demographic segments who currently participate at low rates; namely the poor, those with less education, and those who work longer hours. However, both theoretical and empirical political science research leads us to believe that VBM does not in fact change the participation of these historically low-participation groups. Citrin, Schickler, and Sides compare voters and non-voters in U.S. Senate elections and determine that while non-voters tend to be more Democratic, the outcome of most political questions would be unchanged by full voter turnout. (Citrin et al., 2003) Returning to their research question and applying it to presidential elections, they find that what variation does exist in the effect of universal turnout across states is a result of the variation in the partisan differential. (Citrin et al., 2006)

in polling place elections. The difficulty in determining which situation we find ourselves in arises from the aggregation of available data and the lack of individual time-series voting records. However, for the purposes of examining whether the policy preference of the median voter are affected by the ballot method, this distinction is irrelevant.
Most recent research finds that the people who are stimulated to turnout in response to a reform which lowers the cost of voting appear to be very similar, in demographics and in policy preferences, to those who vote in the absence of such reforms. Barreto, Streb, Marks and Guerra demonstrate that absentee voters are older and more educated, but in their preferences they do not differ greatly from polling place voters. (Barreto et al., 2006) In a discussion of convenience voting institutions such as motor-voter, election day registration, early voting, relaxed absentee voting, and VBM, Berinsky notes that these type of convenience reforms ultimately only exacerbate the existing differential in the SES between voters and non-voters, by bringing more of the same kinds of voters into the electorate. (Berinsky, 2005) Research has also shown that those who are already likely to vote are those most likely to exhibit increased voting from the expansion of alternative "remote" voting methods. (Brown, 2005) Considering Vote By Mail elections, a survey of Oregon voters found that in terms of demographic characteristics and partisanship, that VBM voters differed very little from traditional polling place voters. (Southwell & Burchett, 2000a) In fact, the greatest difference was that between both groups of voters compared to non-voters. From this research we hypothesize that the voters who are stimulated to participate in Vote By Mail elections will not express policy preferences which differ significantly from those of voters in a traditional election.

5.2 Theory

The explanation of this behavior is grounded in the concept of grouping voters based on the frequency of their participation. In his landmark 1960 study, Angus Campbell classified voters’ electoral participation as classifying them in one of a series of concentric circles. (Campbell, 1960) Those who vote in every election belong to a "core" group of voters, and those who participate in most elections, but not all, be-
longing to the next outer ring of “peripheral” voters. As the frequency of an voting
decreases, that voter’s position moves to a more outside ring. Campbell says that in
high-stimulus elections the peripheral voters will join the core voters in participating.
Applying this framework to the voting reforms, it is logical that the voters closest
to the core are those who will benefit most from these reforms— they are motivated
enough and have political knowledge, skills, and efficacy very similar to the core vot-
ers. Recent research confirms the impact of high profile elections. Examining the
very high stimulus 2003 California special election to recall the governor, Arbour and
Hayes found a 10 percent increase in registered voter turnout, noting that voters were
younger, less politically experienced and less partisan. (Arbour & Hayes, 2005) The
research examples given above claim that similar to high-stimulus elections, when an
electoral institution is altered in a way that lowers the costs incurred by the act of
voting, these lowered costs have the greatest effect on the voters in the participatory
group closest to the core. Thus, it is the conversion of the “peripheral” voters into
the “core” voters that accounts for the increase in turnout from these reforms.

Southwell and Burchett make exactly this point in discussing their findings from
a survey of Oregon voters that voters who participate in VBM elections. (South-
well & Burchett, 2000a) They state that VBM voters differ only slightly from polling
place voters in terms of relevant demographics; that they are, “older, more urban,
less partisan.” However, these differences are small and Southwell and Burchett state
that VBM voters are on the whole very similar to polling place voters. (Southwell &
Burchett, 2000b) Also examining VBM returns from Oregon, Karp and Banducci con-
firm that VBM increases turnout and that this effect is most prominent in, “low stim-
ulus elections, such as local elections or primaries where turnout is usually low.”(Karp
& Banducci, 2000) They further use census data to determine that all-mail voting
is most likely to benefit those who are likely voters but who are inconvenienced by
voting. This supports Campbell’s general findings, as well as Magleby’s early work
examining the demographics of the electorate in several municipal VBM elections in California. (Magleby, 1987) Magleby's regression analysis finds that the only significant demographic variable was education, and he admits that the change in the median levels of education is dependent on the stimulus level of the election. While all of this evidence in VBM elections supports the general trend of convenience reforms producing similar voter demographics despite the increase in turnout, one potentially important difference is that most ease of voting reforms only generate a one to two percent increase in turnout, while VBM produces on average ten percentage point increase. Even though it is likely that it is peripheral voters who benefit from these reforms, and not citizens who are already at the low likelihood of participation, the magnitude of the increase in turnout could mean a more prominent shift in voters' policy preferences.²

One of the constant difficulties in U.S. political science research is the lack of individual level electoral data. Voter rolls are available as public record, but veiled under the anonymity of the Australian ballot, a voter's choices are not. Palfrey and Rosenthal note this problem broadly, "A key feature of voting institutions in modern democracies is that turnout can in fact be monitored while choice cannot." (Palfrey & Rosenthal, 1985) To determine the effect VBM has on these questions of electorate composition, we need a topic that, firstly, is repeated across many elections, thus allowing us to compare polling place elections with the VBM elections. Unlike candidate elections, which happen with less regularity and usually feature different options from election to election, issue ballot items address familiar topics and offer consistent choices to voters, regardless of the particulars. These issue ballot items take the form of bonds, levies, questions, propositions, initiatives, and referenda. Although

²Sigelman's analysis comparing the demographics of voters and non-voters claims that even more substantial increases in turnout (such as those seen in VBM) will not produce large shifts in the preferences of the electorate, but as his analysis is limited to voters versus non-voters, and studies the broad electorate as opposed to the influence of specific institutions, we are more inclined to believe the more recent specific research that has been done. (Sigelman, 1982)
there are always specifics that make an issue item in one election different from a ballot item on the same topic in a later election, these variations can be quantified and included in the analysis. If we see a higher approval vote or greater likelihood of passage of school bond questions when they are held under a VBM framework, then that may provide evidence that the median voter in VBM elections has a different ideal policy preference than the median voter in polling place elections, and thus the pool of voters participating the VBM election is different.

To understand the effect that VBM has on the passage rate of school bonds, we must return to our predictions of the demographic characteristics of the voters who will comprise the turnout increase from VBM, then we can analyze what the probable adjustment in the policy preference will be. We predict that true to the salience hypothesis, Vote By Mail will stimulate additional voters who are very similar to the existing voters and thus that the increase in voter turnout will not affect the preferences of the median voter. These results can be confirmed by examining the passage rates of school bonds and the percent of yes votes on ballot items.

5.3 Data

One way to investigate the composition of the electorate is to study voters’ behavior for a single policy area. For our analysis, we first examine voter behavior with ballot items generally, and then look at the specific policy area of school bonds. In addition to the variables previously described in Chapter 3, additional variables were collected specifically in regards to non-candidate ballot items. The variables collected include:

*Votes Yes* and *Votes No* The number of votes for and against a ballot question. When multiple questions appeared for the same district on the ballot, a bond ques-
tion was selected if available, since bond questions offer the opportunity to analyze the position of the median voter. If there was not a bond question, then generally the first question for the district was used.

*Yes Percentage* The percentage of “Yes” votes an item received, defined as:

\[
\frac{\text{YesVotes}}{\text{YesVotes} + \text{NoVotes}}
\]

Thus this percentage is of votes cast on the particular ballot item (as opposed to ballots cast in the election as a whole).

*Pass* This variable takes on the values of “Passed” or “Failed” reflecting the outcome of the question being examined. In this variable, the entry was recorded directly from the election results. This information frequently was not provided in the election results with the turnout and “yes” versus “no” votes breakdown. See *Passage* variable below.

*Passage* This variable takes on the values of 1 indicating “Passed” and 0 indicating “Failed” reflecting the outcome of the ballot item being examined. When available, this was taken from the direct entry of the *Pass* variable described in Chapter 2. However, as noted this data was frequently missing. Initially I attempted to code the passage of the items by designating an item as passed if the yes percentage of votes was greater than 50% of all votes cast. However, in examining electoral returns from the various states, it became evident that the decision rules for passage vary widely and are generally not based simply on majority opinion, but on a combination of minimum turnout levels and minimum approval ratings, which sometimes are above 50%. I am still calculating the Pass rate this way, although I know it means that I am picking up some extra passes. I was able to find out from the election returns.
and from asking the election officials directly about some more of the cases, but the
decision rules or "bond formula" are very complex and in some cases, dependent on
information that was unattainable. For example, in Washington, in some instances
the bond formula that determines passage is dependent upon the turnout in a given
election meeting a minimum turnout level, which is a fraction of the participation in
the most recent previous election. Without having the turnout in every single elec-
tion available, or knowing the exact number of registered voters, or the percentage
formula, it is impossible for me to know if the exact turnout minimums were met.
As an approximation, the basic yes vote percentage was used, along with a minimum
amount of turnout.

Item Content Item content is a longer description of the content of the ballot item,
generally formed by using the first sentence of the proposal or the key phrases of the
proposal verbatim from the ballot language. This is not available for all cases, since
the election results are usually presented separate from the ballot itself. Furthermore,
while many election officials now post sample ballots and question text online for the
benefit of voters, they tend to keep only the sample for the next upcoming election
available, and in turn remove the older sample ballots, which made it difficult to ob-
tain the text for older election returns. Ultimately, this variable was not directly used
in the analysis contained herein, but its presence aids in tracking data, for example
to distinguish two bond measures voted on in the same district on the same election
day. It may very well be of interest to another researcher at some point; in the time-
intensive process of entering this information I started noticing what I thought were
interesting trends in the use of certain words in the bond language- bonds for "tech-
nology" for example, which surely reflects the technological advancement of society
as a whole, but also piqued my interest as to whether specific words were more likely
to cause voters to support bond measures.
Item Title The Item Title is the reference name (as opposed to descriptive name) of the item on the ballot. For example, Measure 02-33.

Format The format of the item describes what legislative tool was employed. It takes the value: Bond, Levy, Question, or Tax.

Topic The topic variable gives a general one or two word description of the substantive matter of the ballot item, such as the beneficiary of a bond proposal, or the subject matter of a question. This was coded directly from one of several sources- the full text of the item on the ballot, from the sample ballot, from a brief description on the election returns, or from a voters’ guide. In the case of a revenue generating item (see variable Format above), if the text of the item was not available for use in coding, but the District Size variable was a school district, then Topic was coded as School. This is unique to the School districts as opposed to the other values District Size can take because the only possible beneficiary of revenue that is under the jurisdiction of voters in a school district is the schools. In a municipality, by contrast, there are many topics under the jurisdiction of voters. The possible values are: Approval, Boundaries (in relation to changing the geographic boundaries of a district), Budget, Charter, Fire, Incorporation, Jail, Library, Liquor, Municipal, Operations, Parks, Procedure, Public Service, Recall, Recreation, Revenue, School, Spending, Term Limits, Water.

Amount This amount is the monetary values of the bond, levy, or tax, as provided in the text of the ballot item or in the voter pamphlet. When there were multiple values given for each year covered by the bond or levy, the largest amount (coinciding with the last year) from the table was used. This allows amounts to be comparable since the alternative to providing a yearly breakdown is to use the typical ballot language, “in an amount not to exceed,” and then to give the highest value from the last year.
5.4 Analysis

We are interested in the policy preferences of voters, as expressed through their choice on school bond items. Specifically, we are interested in whether school bonds are more likely to pass in Vote By Mail elections than in polling place elections. First, however, it is worth examining voter behavior on all question items. Given greater voter turnout, we expect to see that VBM voters will behave similarly to non VBM voters. Table 5.1 below summarizes the passage rate for all question items, by Vote By Mail category.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>VBM No</th>
<th>VBM Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Failed</td>
<td>140</td>
<td>29.85%</td>
<td>98</td>
</tr>
<tr>
<td>Passed</td>
<td>329</td>
<td>70.15%</td>
<td>187</td>
</tr>
<tr>
<td>Total</td>
<td>469</td>
<td>100.00%</td>
<td>285</td>
</tr>
</tbody>
</table>

From Table 5.1, it appears that the passage rates are fairly similar between VBM and non-VBM elections, at 65.61% and 70.15%, respectively. A t-test confirms that the difference between these two passage rates is not statistically significant. However, there is great variation in the content of the 754 ballot items included in this analysis, and despite the proclivity of voters to use simple heuristics such as "vote no on all taxes" or "vote yes on all initiatives" it is worth investigating the passage rates of the different question formats to see if there is any variation in passage rates that is being hidden in the aggregate outcome. The ballot item formats are coded

\[ \text{Effect} = 0.0453, t = 1.29, P\text{-value} = 0.199. \]

\[ \text{VBM Yes Pass} = 0.6561, \text{ s.e. } 0.0282; \text{ VBM No Pass} = 0.7015, \text{ s.e. } 0.0211; \]

---

Log Amount The natural log of Amount.
as: Bond, Levy, Tax, and Question. These designations refer only to the legislative tool that the ballot item refers to, and does not distinguish describe the substantive content of the item. Table 5.2 provides the passage rates by category.

<table>
<thead>
<tr>
<th>Item Format</th>
<th>Outcome</th>
<th>VBM No</th>
<th>VBM Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bond</td>
<td>Failed</td>
<td>77</td>
<td>69</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>33.92%</td>
<td>37.50%</td>
<td>35.52%</td>
</tr>
<tr>
<td></td>
<td>Passed</td>
<td>150</td>
<td>115</td>
<td>265</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>66.08%</td>
<td>62.50%</td>
<td>64.48%</td>
</tr>
<tr>
<td>Question</td>
<td>Failed</td>
<td>40</td>
<td>17</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>27.97%</td>
<td>27.42%</td>
<td>27.80%</td>
</tr>
<tr>
<td></td>
<td>Passed</td>
<td>103</td>
<td>45</td>
<td>148</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>72.03%</td>
<td>72.58%</td>
<td>72.20%</td>
</tr>
<tr>
<td>Levy</td>
<td>Failed</td>
<td>9</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>18.00%</td>
<td>33.33%</td>
<td>22.54%</td>
</tr>
<tr>
<td></td>
<td>Passed</td>
<td>41</td>
<td>14</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>82.00%</td>
<td>66.67%</td>
<td>77.46%</td>
</tr>
<tr>
<td>Tax</td>
<td>Failed</td>
<td>14</td>
<td>5</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>28.57%</td>
<td>27.78%</td>
<td>28.36%</td>
</tr>
<tr>
<td></td>
<td>Passed</td>
<td>35</td>
<td>13</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>71.43%</td>
<td>72.22%</td>
<td>71.64%</td>
</tr>
<tr>
<td>Total</td>
<td>Failed</td>
<td>140</td>
<td>98</td>
<td>238</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>29.85%</td>
<td>34.39%</td>
<td>31.56%</td>
</tr>
<tr>
<td></td>
<td>Passed</td>
<td>329</td>
<td>187</td>
<td>516</td>
</tr>
<tr>
<td></td>
<td>Percent</td>
<td>70.15%</td>
<td>65.61%</td>
<td>68.44%</td>
</tr>
</tbody>
</table>

Separating the ballot items by format types produces only slight differences in the previous finding from Table 5.2 and the passage rates continue to exhibit strong similarities. The t-test proved these differences in passage rates over Vote By Mail and non-Vote By Mail elections not to be statistically significant. See Table 5.3 for summary of t-test results.

More specifically, we can turn to the question of school bonds. We have demonstrated that Vote By Mail increases turnout, and that this turnout varies by the salience of the election. Following the hypothesis that the increase in turnout brings voters who are very similar to those already voting, then we expect the larger VBM electorate's policy preferences to be similar to those in non-VBM elections. Table 5.4 summarizes the passage rates for school bond items:
Table 5.3: t-tests of Significance for Difference of Ballot Item Passage, By Format

<table>
<thead>
<tr>
<th>Item Format</th>
<th>VBM No</th>
<th>VBM Yes</th>
<th>mean(pass)</th>
<th>mean(pass)</th>
<th>diff. of means</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bond</td>
<td>.6608</td>
<td>.6250</td>
<td>.036 (.048)</td>
<td>.751</td>
<td>.453</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>.7203</td>
<td>.7258</td>
<td>-.006 (.068)</td>
<td>-.081</td>
<td>.954</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Levy</td>
<td>.8200</td>
<td>.6667</td>
<td>.1533 (.119)</td>
<td>1.29</td>
<td>.206</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax</td>
<td>.7143</td>
<td>.7222</td>
<td>-.008 (.127)</td>
<td>-.063</td>
<td>.951</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Standard errors in parentheses. t-test conducted with condition of unequal variances.

Table 5.4: Passage of School Bonds by Vote By Mail

<table>
<thead>
<tr>
<th>Bond Outcome</th>
<th>VBM No</th>
<th>VBM Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Failed</td>
<td>65</td>
<td>36.93%</td>
<td>62</td>
</tr>
<tr>
<td>Passed</td>
<td>111</td>
<td>63.07%</td>
<td>106</td>
</tr>
<tr>
<td>Total</td>
<td>176</td>
<td>100.00%</td>
<td>168</td>
</tr>
</tbody>
</table>

The passage rate for school bonds is 63.07% in non-VBM elections and 63.10% in VBM elections, a remarkably similar outcome where the difference of the mean passage is statistically indistinguishable from zero. A logit regression on the variable Passage concurs with this finding, as there is no statistically significant effect of the Log bond amount or of Vote By Mail on the probability of passage. (Table 5.5)

While passage rates are one indication of the policy preferences of the electorate, another indicator is the percentage of “Yes” votes on a ballot item. One part of the electoral institutions which affects the outcome of school bond elections is the affirmative vote percentage required for passage. Like most aspects of electoral institutions, this varies widely across districts. In California, for example, Proposition 218, passed

---

4Results of t-test with condition of unequal variances. VBM Yes: mean(pass) = .6307 (.036); VBM No: mean(pass) = .6310 (.037); Effect = -.0003, t = -.0052, p-value = 0.9959
Table 5.5: Effect of VBM and School Bond Amount on Likelihood of Passage

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>S.E.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>log(Bond Amount)</td>
<td>0.088</td>
<td>0.080</td>
<td>0.272</td>
</tr>
<tr>
<td>Vote By Mail</td>
<td>0.151</td>
<td>0.239</td>
<td>0.528</td>
</tr>
<tr>
<td>Intercept</td>
<td>-1.019</td>
<td>1.291</td>
<td>0.430</td>
</tr>
</tbody>
</table>

Observations N = 317

*Note:* Logistic regression on Passage.

in 1996, required any new general tax or fee measure to garner a two-thirds majority vote. For school bonds, relief from this law came in 2000, when Proposition 39 reduced the percentage needed to 55%. (Balsdon *et al.*, 2003) (Rueben & Cedron, 2003) It is helpful to compare the raw percentage of Yes Votes for two reasons. First, even though fixed effects are used to control for the districts, there may have been changes over time within a district in the necessary affirmative vote percentage threshold to achieve a passing bond. Secondly, school bonds may be passing at the same rate in Vote By Mail and non-Vote By Mail elections, but the passage could be coming as a result of different margins. Both of these scenarios could produce passage rates which appear identical, but mask changes in the preferences of the electorate. To confirm the findings of the passage rate, I use the variable *Yes Percentage*, which is defined as $\frac{\text{YesVotes}}{\text{YesVotes} + \text{NoVotes}}$.

Table 5.6: Yes Percentage of School Bonds by Passage and Vote By Mail

<table>
<thead>
<tr>
<th>Bond Outcome</th>
<th>VBM No</th>
<th>VBM Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean(Yes%)</td>
<td>N</td>
</tr>
<tr>
<td>Failed</td>
<td>0.429</td>
<td>52</td>
</tr>
<tr>
<td>Passed</td>
<td>0.617</td>
<td>103</td>
</tr>
<tr>
<td>Total</td>
<td>0.554</td>
<td>155</td>
</tr>
</tbody>
</table>

71
Yet again, the comparative statics of the raw data confirm the hypothesis that even with the increased turnout, the policy outcome of VBM elections are very similar to the policy outcomes of non-VBM elections. To further test if the percent of yes votes was different for VBM mail elections, we regressed VBM and Log Amount on Yes Percentage, with fixed effects for county and state. Log Amount is included because voters likelihood of voting “Yes” could be directly tied to the amount of the bond. This regression produced no statistically significant coefficients, supporting the hypothesis that there is no difference in the yes percentage across VBM conditions on school bond items.5

Table 5.7: Effect of Log Bond Amount and Vote By Mail on Yes Percentage

<table>
<thead>
<tr>
<th>Dependent Variable = Percentage of Yes Votes</th>
<th>Coefficient</th>
<th>S.E.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log(Bond Amount)</td>
<td>-0.0016</td>
<td>0.0055</td>
<td>0.764</td>
</tr>
<tr>
<td>Vote By Mail</td>
<td>0.0237</td>
<td>0.0150</td>
<td>0.115</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.5446</td>
<td>0.0890</td>
<td>0.000</td>
</tr>
</tbody>
</table>

\[ R^2 \] = 0.3240

Observations = N= 290

Note: Ordinary least squares estimates with state and county fixed-effects.

This regression shows that neither the bond amount nor VBM have a statistically significant effect on the percentage of yes votes received. The coefficient for \textit{Log Bond Amount} is negatively signed, which is correct in terms of what we would predict— that as the value of a bond increases, that support for said bond will decrease. But this coefficient is not significant. Thus, all three of the measures we employed to determine

5The regression was kept simple and included only these two independent variables to maximize the number of cases that could be included- because of missing data, increasing the number of independent variables quickly reduces the number of cases with full information. Other regressions were conducted including turnout, log(turnout), Presidential, Special, Primary. The findings held, as all regressions produced no statistically significant coefficients.
whether the increase in turnout from using Vote By Mail changes the composition of the electorate.

5.5 Inferences

Vote By Mail has the effect of increasing participation in elections in the United States, and here the analysis shows that the people who benefit from this balloting method hold very similar policy preferences to the people who were voting in traditional elections. Thus, the increase in turnout from a Vote By Mail election does not shift the median voter. However, given the many ways Vote By Mail affects the circumstances of an election, it may potentially change the behavior of voters during the voting process. We just demonstrated that VBM affects electoral turnout. This evidence provides good reason to believe that the drivers of that effect will also change the way that people vote. There is a great deal of research to be done in the future to more fully understand how Vote By Mail, and electoral institutions more broadly affect not only the absolute level of turnout, but perhaps more interestingly, the quality of participation.

5.6 Areas for Future Research

Aside from the changes in who is voting, the differences in the electoral environment of VBM elections may cause voters to alter their behavior expressing their policy preferences. Considering the increased time voters have to complete their ballot and the availability of information in the home environment, we predict that the amount of roll-off will decline. This may happen because voters have more opportunity to think about and access the opinions that they hold. Alternatively, these institutional
changes may in fact result in the formation of preferences, as voters are able to look up information to make a policy selection during the act of voting. The Washington state election guide pamphlet encourages voters to do just that, “This is an opportunity to spread out your ballot and your Voters’ Pamphlet across the kitchen table and study the issues as you vote.” In either scenario, we expect to see increased item participation. This could be analyzed with individual ballot data, to determine if voters complete more of their ballots, and with survey data regarding initiatives to see if voters were able to correctly make the selections that align with their beliefs.

**Tapering off Effects** We expect that turnout in VBM elections will show moderate increases at the beginning of implementation, which will taper off over repeated use of this election method. Given a fair amount of time, the turnout in VBM elections will not differ substantially from other types of elections. The initial increase in turnout is due to the greater attention paid to this novel ballot method. The first use of all-mail balloting in a district generally results in an informational campaign by the office of elections to prepare voters for the new voting methods, as well as a push to register voters and a cleaning up of the existing registration rolls. This should result in higher turnout based on the increased awareness of an election and the novelty of the new method, which further entices people to participate, either because of personal curiosity or increased social discussion, which translates to increased social pressure to participate. Subsequent elections will see a return to the normal levels of participation as the novelty of the new voting method wears off. This effect could be tested in the future, once there is more data available and VBM has been implemented for some time.

**Roll Off** Do people complete more of their ballot? Is roll-off lower in these elections? Ballot roll-off refers to the declining response rate of voters on ballot items which appear farther along the ballot, also referred to as ”down the ticket” races.
There are several considerations and notable differences in the electoral environment which we would expect to affect the amount of ballot completion.

Firstly, time. This has two components; the limitations on the time frame allowed and the actual amount of time a voter takes to complete their ballot. In a polling place there is a hard limit on the amount of time that a voter can take, that being restricted by the amount of hours the polling place is open. In practice, we know that few voters use the maximum amount of time. The inconvenience of being in a foreign environment, with a limited amount of time before one must attend to another activity, such as returning to work, would seem to shorten the amount of time a voter would spend completing his ballot. Also, the possibility of other anxious voters waiting in line, and the visible indicators of an average time that other voters are taking to complete their ballot, would all contribute to a social pressure urging the voter to take not too much and not too little time. Why do we care how much time voter a takes to complete his ballot? Well, if we believe that more challenging cognitive decisions take more time to think through, then the extent to which a voter feels the pressure of an external time limit, whether in actuality or internally, will affect his decision to vote or abstain on complex ballot items. In a setting with essentially unlimited time, such as that provided by all mail balloting, we would expect voters to complete more of the ballot items, simply because they have less time pressure on them. Also, if we believe that there is a set amount of time x that a voter will spend on voting, and that the voter employs cost-benefit analysis to make the decision whether to vote or not, then the amount of travel time that factors into polling place voting should be absorbed into the actual voting time component of voting when the voter casts their ballot at home.

Granted, there are ways that this more open time frame could negatively affect voter behavior as well. One way would be the transition of an election away from an “event” to a longer time span will diminish some of the frenzy of activity and
subsequent social pressures that motivate and remind citizens to vote.
The physical location of the polling place itself has been demonstrated to affect voting behavior. (Berger et al., 2006) There is an effect of voting location not just in terms of travel time to and from that location, but the environment itself. Anyone who has taken an examination in a noisy room can attest that the surroundings can affect concentration. Additionally, the setting may provide varying comfort levels related to a voter’s political persuasion; even more specifically, the setting may provide direct cues on certain topics. Voting in a school classroom may cue opinions on education, while voting in a church may increase voters’ considerations of morality on an issue such as abortion or capital punishment.

Secondly, the availability of information differs greatly. In a polling place setting a voter is permitted only his sample ballot. Returning to our example of the instance that a difficult ballot item arises, a voter who is unsure about his position may wish to consult the internet, the election materials sent in the mail by a political party, the local newspaper editorial he remembers reading, or even his spouse. So the presence of information in the voting environment increases the likelihood of its use, and of informed decisions being made. However, the voter must still choose to take this costly step of seeking out information to make a decision that is in line with his beliefs, as opposed to abstaining from the item. The presence of available information causes a greater decrease per ballot item skipped in the psychological benefits one reaps from the act of voting. When a voter knows that they could easily go look up the information to make an informed decision, and they choose not to do so, but instead to skip a ballot item, they lose some of the psychological benefit they would receive from the act of voting. When in the polling place, with the knowledge that they risk making the wrong decision, given their limited amount of information, skipping that item may be more rational than guessing on it.
There is great potential for Vote By Mail to affect the participation of voters in ways other than turnout. Future research will examine the other issues mentioned above.
Chapter 6

Conclusion

VBM is a unique all-mail balloting method that has grown in frequency of use in the United States and is likely to continue to expand. It is popular with both election officials and voters alike, who appreciate the lowered costs for all involved— for administrators, the cost of holding an election, and for voters, the cost of time and effort to participate in the election. Through the creation and statistical analysis of a large-scale data set, I have shown an overall effect of an approximately 10 point increase in turnout across all elections. More importantly, disaggregation of the data into groups based on the salience of the election showed that the effect varies significantly, with the highest salience elections receiving a much smaller increase in turnout (approximately 3 percentage points) compared to the lower salience elections, which can receive a 14 percentage point increase in turnout.

We then turned to the question of what this increase in turnout substantively means for policy formation. Who are the people comprising the increase in turnout and how do their policy views compare with those of the median voter in a traditional election? Previous research shows that in other ease of voting reforms, the voters who benefit from the reform and who thus make up the increase in turnout, are very similar in the their beliefs to the existing voters. The analysis here shows
that the increase in turnout that is a byproduct of a Vote By Mail election also does not appear to shift the median voter. It is notable that even with the sometimes large increases in turnout the median voter stays the same. Future research could build on these preliminary results by repeating the analysis with additional issue topics.

By examining the data from non-candidate ballot items we are able to assert that the increased turnout from Vote By Mail elections does not cause a shift in the median voter. Since VBM elections produce higher turnout in the range of 3 to 15 percentage points, the pertinent question becomes how increased turnout affects the policy preferences of the median voter. Testing the pass outcomes and yes percentages for school bond elections has produced findings consistent with the hypothesis that the increase in voter turnout resulting from the implementation of Vote By Mail does not shift the median voter. This supports the explanation that the voters who make up the increase in turnout are not voters from the periphery of electoral involvement, but rather those voters who are likely participants in the election process. This finding is important for two reasons. Firstly, it supports the argument that the group of citizens who are most likely to benefit from voting reforms are those who are similar to the existing group of voters in the election.

Secondly, this result has valuable implications for the decisions of election officials, as it informs us as to the true effects of Vote By Mail on the electorate. Vote By Mail is a popular electoral reform for many reasons, but one of the selling points proponents frequently state is that Vote By Mail will help accommodate a voter who abstains because he finds voting to be a difficult task within the constraints of his day- they especially extend this application of VBM to citizens with lower levels of education, political experience, and socio-economic status. The argument is made that alternative voting methods such as VBM will provide greater opportunity for these citizens to participate and make their voices heard in the legislative process. The
results here demonstrate that the additional voters who participate because VBM is used are not coming from this pool of infrequent voters, but are likely voters who are similar to the people who are voting already. At the least, the larger electorate of vote by mail elections expresses policy preferences that are statistically indistinguishable from the electorate of non-VBM elections. Thus, election administrators and democracy activists should be wary of implementing VBM with the goal of engaging non-voters. Other activist groups and organizations have tried to place ballot measures such as school bonds strategically on Vote By Mail elections because they thought that this election format would draw more voters who were sympathetic to their cause. The results here conclusively demonstrate that the use of VBM does not change the distribution of policy preferences in the electorate.

The sum of these results return us to the hypothesis at the core of this study; the mechanism by which Vote By Mail increases turnout. We believe the varying effects by type of election are more consistent with a salience hypothesis than a cost-benefit effect of VBM. Analyzing the passage rates of school bonds showed that VBM and non-VBM elections produce nearly identical passage rates. Furthermore, the yes percentage of votes also displayed a lack of difference between VBM and traditional elections. The evidence presented fully supports the conjecture that while Vote By Mail balloting increases turnout in some types of elections, this increase in turnout ultimately does not affect the median voter.
Bibliography


Bradbury, Bill. 2007. *Vote by mail manual*. Oregon Secretary of State and Oregon Association of County Clerks.


Harris, Rachel. 1999. *Vote by mail: A look at modernizing the electoral system*. Tech. rept. 3. California Research Bureau.


