

May 2013

Shifty Characters: Ideological Shifting and Electoral Outcomes in U.S. Senate Elections

Clayton Clouse

University of Wisconsin-Milwaukee

Follow this and additional works at: <https://dc.uwm.edu/etd>



Part of the [Political Science Commons](#)

Recommended Citation

Clouse, Clayton, "Shifty Characters: Ideological Shifting and Electoral Outcomes in U.S. Senate Elections" (2013). *Theses and Dissertations*. 84.

<https://dc.uwm.edu/etd/84>

This Dissertation is brought to you for free and open access by UWM Digital Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of UWM Digital Commons. For more information, please contact open-access@uwm.edu.

SHIFTY CHARACTERS: IDEOLOGICAL SHIFTING AND ELECTORAL OUTCOMES IN U.S. SENATE ELECTIONS

by

Clayton Clouse

A Dissertation Submitted in
Partial Fulfillment of the
Requirements for the Degree of
Doctor of Philosophy
in Political Science

at

The University of Wisconsin–Milwaukee
May 2013

ABSTRACT

SHIFTY CHARACTERS: IDEOLOGICAL SHIFTING AND ELECTORAL OUTCOMES IN U.S. SENATE ELECTIONS

by

Clayton Clouse

The University of Wisconsin–Milwaukee, 2013
Under the Supervision of Thomas Holbrook

Very little research has investigated how a two-stage electoral process (a primary election to nominate the party candidate, and a general election where the parties' candidates face off) affects candidate behavior. Here I argue that candidates are attracted to the median voter position of the electorate in which they are running. And that differences between the ideological positions of the primary median voter and the general election median voter means that candidates have incentive to shift their ideological positions to align with the relevant median voter. I test for the presence of candidate ideological shifting in U.S. Senate elections. I measure candidate ideological shifting by recovering two ideological positions for each candidate (one during the primary campaign and another during the general election campaign) utilizing donations from political action committees. Using these measures I find that candidates do engage in ideological shifting. Candidates align closely with the primary median voter during the primary campaign, and then shift toward the middle to moderate their ideological position to align more closely with the general election median voter. My results also indicate that ideological movement has electoral implications. Candidates get punished in the general election for their primary ideological positions.

If candidates were extreme during the primary campaign they received fewer general election votes than candidates whose primary ideologies were moderate.

© Copyright by Clayton Clouse, 2013
All Rights Reserved

To my girls Anaiya and Gabby

Acknowledgements

I wanted to start by thanking the Political Science Department at UWM. It has truly been a great place to study and work. However, there are several individual faculty members who deserve special recognition.

First, I want to thank Professor Kathleen Dolan. During my undergraduate career and throughout graduate school, she was a source of encouragement. She always showed me how my work was important beyond the narrow scope of my research. Furthermore, she was ever quick to provide me the support and confidence I needed to persevere. Her presence in my life has been invaluable and I will always be thankful.

I also want to thank Professor Michael Tofias. I encountered many obstacles while writing this dissertation, both academic and personal, and without his encouragement, friendship, and advice I certainly would not have finished.

Additionally, I wish to thank Professor David Armstrong for introducing me to bayesian statistics. He provided me the tools I needed to move forward with this project. Moreover, I am very thankful that his patience seemly knows no bounds.

Last, but absolutely not least, I want to extend a special thank you to Professor Thomas Holbrook. From the beginning, he has been a mentor and a friend. I cannot imagine going through this without his guidance or encouragement. Without him I would not have started graduate school, and I certainly would not have finished. I owe him a debt of gratitude which I can neither express, nor will I ever be able to repay.

Contents

1	Introduction	1
	Theoretical Model	6
	Why Should We Care?	18
	Outline	22
2	Candidate Ideology	24
	PAC Donations	26
	PAC Decision Criteria	31
	Estimating Candidate Ideology	35
	Candidate Ideology Shape	37
	Methodology: Bayesian Inference	40
	Candidate Ideology Results	46
	Candidate Estimates	48
3	State Ideology and Candidate Location Choice	54
	Different Electorates	55
	Estimating State Ideologies	58
	Results	61
	Candidate Ideology and State Electorates	69
4	Candidate Ideological Shifting	82
	Evidence of Shifting	85

Restrictions to Shifting	89
Hypotheses	90
Results	92
5 Candidate Vote Share	102
Theory & Hypotheses	106
Testing the Hypotheses	109
Primary Elections	112
Primary Election Results	114
General Elections	123
General Election Results	126
6 Summary and Discussion	137
7 Appendix: Model Code	143
References	143
Curriculum Vitae	150

List of Tables

2.1 Candidate Variable Descriptions	45
2.2 Parameter Estimates from Candidate Characteristics	47
2.3 Primary and General Ideology Correlations	51
2.4 Non-incumbent Winners	53
3.1 2000 & 2004 State Ideology - Fixed Effects	62

3.2	2000 & 2004 State Ideology - Random Effects	64
3.3	Correlation Between Candidate & State Ideology	72
3.4	Candidate & State General Ideology—Controlling for Party	76
4.1	Correlation Between Candidate & State Ideology	85
4.2	Candidate Ideological Shifting	93
4.3	Candidate Ideological Shifting	96
5.1	Scaled-State Ideology	111
5.2	Variable Measures and Expectations - Primary Elections	115
5.3	Senate Primary Vote Share 2000-2008	116
5.4	Variable Measures and Expectations - General Elections	126
5.5	Senate General Election Vote Share 2000-2008	126
5.6	Senate General Election Vote Share 2000-2008	129

List of Figures

1.1	Theoretical Distributions	5
1.2	Example of Candidate Shifting	9
1.3	Strategic Voting	11
1.4	Democratic Primary Example: Pure Sincere Voting	13
1.5	Democratic Primary Example: 50% Strategic Voting	14
1.6	Democratic Primary Example: 25% Strategic Voting	16
1.7	Congressional Polarization: House of Representatives	21
2.1	Second Criterion - Ideological Distance	32
2.2	Caveat to Ideological Distance	34

2.3	The Shape of Ideology	38
2.4	PAC Donations - 2000 General Campaign	45
2.5	General Election 2002 Candidate Estimates	49
2.6	Relationship Between Primary Ideology and DW-Nominate	51
2.7	General Ideology and DW-Nominate	52
3.1	Different Electorates	57
3.2	State Ideologies - 2000	66
3.3	State Ideologies - 2004	67
3.4	Relationship Between Primary Ideology	70
3.5	Relationship Between General Ideology	71
3.6	Republican Primary Ideology	73
3.7	Democratic Primary Ideology	75
3.8	General Ideology - Incumbent and Challengers	77
3.9	Primary Placement - Incumbent and Challengers	78
3.10	Primary Placement - Challengers Only	80
4.1	Candidate Shifting: IA 2002	86
4.2	Candidate Shifting: KY 2008	87
4.3	Candidate Shifting Toward General Median Voter	88
4.4	Candidate Movement	94
4.5	Effect of Relative Primary Ideology	97
5.1	Directional vs. Proximity	104
5.2	Directional vs. Proximity	105
5.3	Primary Vote Share	113
5.4	Primary Vote Share: Incumbents and Non-incumbents	117
5.5	Conditional Effect of Incumbency in Primary Elections	119
5.6	Primary Vote Share: Incumbents and Non-incumbents	121

5.7	General Election Vote Share	124
5.8	General Election Vote Share	127
5.9	Effect of Initial Distance	130
5.10	Effect of Initial Distance	132
5.11	Ideological Proximity and Initial Distance	133

List of Equations

1.1	Theoretical Relationship	6
2.1	PAC Donations	36
3.1	State Ideology - Fixed Effects	59
3.2	State Ideology - Random Effects	60
5.1	Candidate Vote Share	109
5.2	Scaling State Ideology	110

Chapter 1

Introduction

Most U.S. elections are characterized by a two-stage process. The first-stage is a primary election where party members nominate a candidate who then carries their party's label into the general election. The second-stage is the general election where the two parties' nominees face off. This two-stage process represents all U.S. Federal elections and many sub-Federal elections, yet little research has spent time analyzing how this affects candidate ideology or behavior. What sort of behavior should we expect from candidates who are faced with a two-stage electoral process? Are candidate ideologies pushed to extreme positions as a result of primary elections? If so, do candidates pay a price for this extremeness in the general election? These are a few of the questions driving this research.

The Downsian model of two-party competition predicts that the candidates will converge to the median voter's ideological position (Downs, 1957). Yet in the United States—clearly a two-party system—scholars have found that candidates do not converge towards the median voter (Aranson and Ordeshook, 1972; Coleman, 1971, 1972). By and large candidates tend to diverge. Grofman (2004) argued that because many of the basic assumptions of the Downsian model are violated we should actually expect divergence.

At least two of these Downsian assumptions are relevant here and both are highly related to each other. The first assumption that is clearly violated is that there is a single-round election for any office. As I stated previously, U.S. elections are characterized by a two-stage election process: a partisan primary election followed by a general election. For a candidate to carry his or her party's label into the general election, he or she must first win his or her party's nomination. To win the party's nomination candidates have to compete with other candidates in a primary campaign. The competition created by other candidates during the primary campaign will encourage candidates to align their ideology with the ideology of their party's median voter. As a result of this primary competition the candidate who wins the party nomination will be more closely aligned with his or her party's median voter, than he or she would in the absence of a primary campaign. The amount of candidate divergence should be related to the difference between the parties' median voters. Parties that are highly polarized should lead to larger degrees of candidate divergence.

The other relevant Downsian assumption violated is directly related to the first: elections take place within a single constituency. Voters who participate in one party's primary election cannot participate in the other party's election. There is some variation within states' primary voting laws. In some states you must be a registered party member to vote in the relevant party's primary election. In other states you can only vote in one party's primary election. Even in states with the most lenient primary voting laws an individual can only nominate one candidate to run for a given office. Thus, individuals who vote for a candidate from one party cannot vote for a candidate from another party for the same office. This means that the candidates who ultimately run against each other in the general election, begin the process by running in completely different primary elections made up of completely different electorates.

Once the candidates win their parties' nominations they face each other in the

general election. Candidates will find that many, if not most, of the voters that supported them in the primary election will also vote for them in the general election. However, this is the case for both candidates. So although a candidate can count on his or her primary voters as being part of the electorate, the other party's nominee will also have many primary voters in the general electorate. It is also the case that many fewer individuals get out to vote during the primary election than during the general election. So many of the voters who will eventually vote for the candidates in the general election were not part of the primary electorates.

There is a clear difference between primary constituencies and the general electorate. Key (1956) raised concerns that the unrepresentativeness of primary electorates would lead to candidates that were too extreme for the general electorate.¹ Key was arguing that primary electorates are more ideologically extreme than the general electorate, and that this would lead to candidates who are also ideologically extreme, and ultimately candidate divergence.

Models developed by Aranson and Ordeshook (1972) and Coleman (1971, 1972) illustrate that a two-stage electoral process characterized by distributions such as those in figure 1.1 will result in candidate divergence. Aranson and Ordeshook (1972) get to this result by focusing on candidate behavior. Specifically candidates develop expectations about their probability of winning the primary and the general based on a policy position they take. On the other hand Coleman (1971, 1972) looks at

¹Researchers who have studied the representativeness of primary electorates have had conflicting results. Initially, studies found that primary electorates were unrepresentative (Ranney, 1968, 1972). However, later studies challenged this conclusion (Bartels, 1988; Geer, 1988; Norrander, 1989). Geer (1988) argued that the comparison groups used by earlier studies were problematic. According to Geer (1988) past studies have compared primary voters to those who did not vote in the primary (Ranney and Epstein, 1966; Ranney, 1968, 1972), to party identifiers (Kritzer, 1977), and to voters in the general election (DiNitto and Smithers, 1972). Geer argued that these comparisons were potentially misleading because they could have included individuals who did not vote for the party in the general election. He claims that a better comparison would be primary voters to individuals who are likely to turnout in the general election and are potential supporters of the party in that election (Geer, 1988, page 931). From this comparison he found that there was little difference between primary voters and the general electorate. More recently Kaufmann, Gimpel and Hoffman (2003) found that open primaries were more representative of the general electorate than closed primaries.

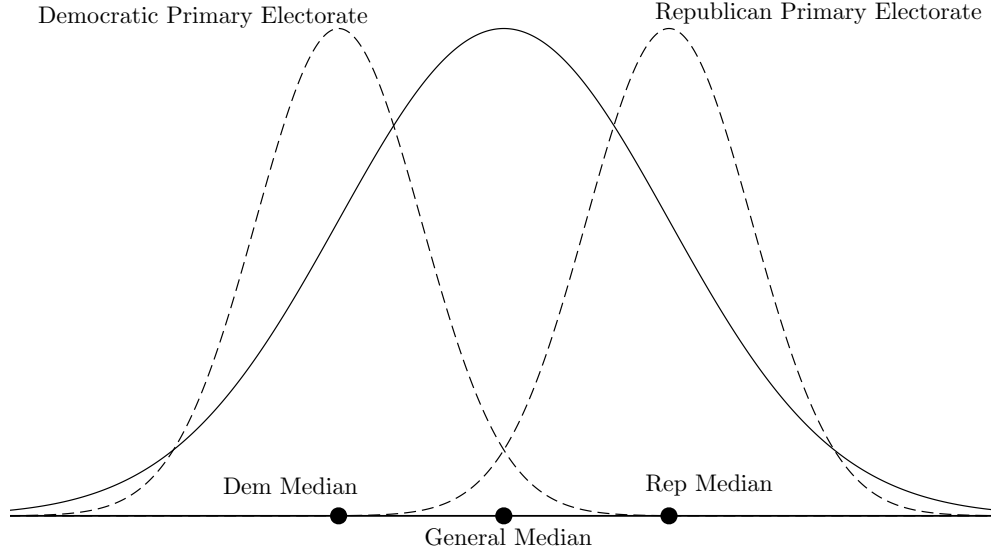
voter behavior. In Coleman’s model voters maximize a function that is represented by a candidate’s ideological distance from the voter, discounted by the probability that the candidate can win in the general election.

Recently Brady, Han and Pope (2007) conducted an empirical analysis of candidate positioning. The authors said candidates face a “strategic dilemma: how can they please the primary constituency enough to secure the nomination, but still maintain electability in the general election?” (page 80). They found that when faced with such a dilemma candidates choose to position themselves closer to their parties’ primary electorates. The more ideologically distinct the parties are, the more ideological divergence between the candidates we should expect.

The force that is predicted to cause candidate convergence in a two-party *single-round* election is the fact that the candidate who captures the median voter’s vote will win the election. However, this force is diminished during the general election in a two-stage electoral process because candidates must first win a primary election to receive their parties’ nominations. One could even argue that candidates are actually pulled away from the general election’s median voter during primary elections. *Thus, if primary elections force candidates to extreme positions, do candidates pay a price for this in the general election?* I try to illustrate the potential for this problem in figure 1.1.

Figure 1.1 displays the distributions of three electorates: a Republican primary electorate, a Democratic primary electorate, and a general electorate. To help motivate this let us assume that general election voters’ positions G are normally distributed such that $G \sim n(\mu, \sigma^2)$. Next let us assume that the voters in the Republican primary P_R and Democratic primary P_D are also normally distributed, but based on the same scale as the general electorate the distributions would be shifted to the left and to the right, with $\mu = \sigma^2$ for Republicans, and $\mu = -\sigma^2$ for the Democrats. Thus, if we found that the parameters for G were estimated to be $G \sim n(0, 1)$, then we would

Figure 1.1: Theoretical Distributions



know the Republican mean would be 1 and the Democratic mean would be -1. As far as the variance is concerned, it is not unreasonable to assume that the variance of the primary electorates would be less than the variance of the general electorate, specifically that $\sigma_P^2 < \sigma_G^2$. The variance I have chosen for this example is 0.5, which is one-half of the general electorate's theoretical variance. Thus, $P_R \sim n(1, 0.5)$ and $P_D \sim n(-1, 0.5)$.²

The points represent the median voter position of each distribution. If we assume that a candidate's optimal position is that of the median voter (Downs, 1957), then differences in the positions of the primary's median voter and the general electorate's median voter indicate that the best candidate position in the primary election is not the best in the general election. This difference in optimal positions leads to

²To generate the densities in figure 1.1, I used the probability density function of the normal distribution—often referred to as the Gaussian distribution (Casella and Berger, 2002, page 102). Specifically I used the function, $f(x|\mu, \sigma^2) = \frac{1}{\sigma\sqrt{2\pi}}e^{\frac{-(x-\mu)^2}{(2\sigma^2)}}$ for the general electorate's distribution,

and
 $f(x|\mu, \sigma^2) = \frac{.5}{\sigma\sqrt{2\pi}}e^{\frac{-(x-\mu)^2}{(2\sigma^2)}}$ for the primary electorates' distributions.

ideological divergence between opposite party candidates. Moreover, greater differences between the parties' median voters should induce greater ideological divergence between the parties' nominees.

Theoretical Model

The base theoretical model I use is extremely simple: a spatial model of vote. I assume that there is an underlying ideological dimension that is based on policy preferences. Taking into account policy preferences, each individual voter and candidate has a position in this dimensional space. Moreover, following from Black (1958) ideologies are single-peaked and monotonically decreasing from their most preferred point. Each individual voter prefers to cast their vote for the candidate who is most ideologically similar to him/herself. Candidates enlighten voters about their ideological positions through the use of policy statements, debates, endorsements, and their overall platform. Since candidates desire to win elections, they will try to entice enough voters to secure an election victory.

Following in the Downsian tradition (Downs, 1957), I summarize the ideological preferences of a unidimensional electorate with the location of the median voter. A candidate will receive more votes as the distance between his or her ideology and that of the median voter decreases. Equation 1.1 displays this idea.

$$\text{VoteShare} = [\text{Candidate Ideology} - \text{Median Voter Ideology}] \quad (1.1)$$

As simple as this idea maybe, I make a key assumption that leads to a much more complicated model. Rather than viewing campaigns as single events (namely the election day), I follow from Holbrook (1996) and argue that campaigns are best seen as a process (page 46). Being that the campaign for a given election often begins

several months, or even a year, before the actual election day, I assume that candidates can adjust their ideological positions as the campaign progresses. To date most research has assumed that candidates must choose a single position for the entirety of both the primary and general election campaigns. Specifically, when faced with both a primary and general electorate candidates will choose to align themselves with the primary electorate (Brady, Han and Pope, 2007). Since candidates need to win the primary election before they move on to the general campaign, this argument makes sense. However, removing the ability of candidates to adjust their ideological positions removes the inherent dynamic character of campaigns. Moreover, any research that assumes candidates focus on the primary election when placing themselves ideologically, should expect ideological divergence among opposite party candidates.

Viewing campaigns as a process makes it much more difficult to model candidate strategy and to recover candidate ideology. Candidates are no longer restricted to choosing a single ideological position for the entire campaign process. It is not difficult to imagine that candidates faced with primary and general electorates, such as those illustrated in figure 1.1, would have a different strategy than candidates who only have a single electorate to please. I argue that candidates should position themselves close to their parties' median voters for the primary election, and then adjust their position so they are closer to the general electorate's median voter for the general election. Here I call this candidate ideological shifting.

Candidate Ideological Shifting

Candidates try to prove to the primary electorate that they are the best candidate to represent their interests. The most successful candidates demonstrate that their ideology aligns them precisely with the median voter's ideology. If a particular candidate is seeking the nomination of a primary electorate that is liberal, relative to national politics, then that candidate will have to send signals that speak to her liber-

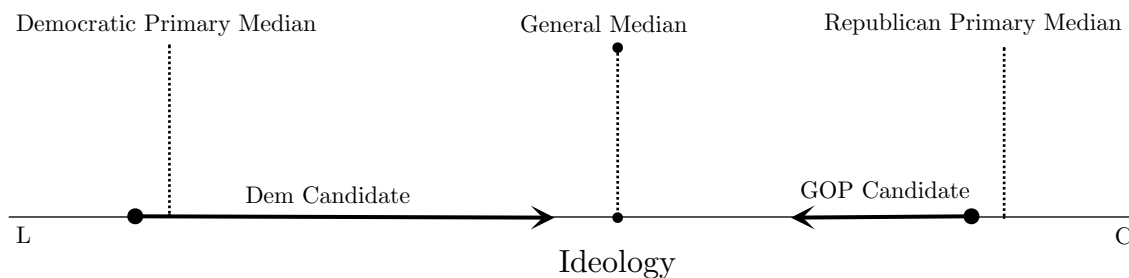
alism. It is also true that candidates seeking nominations from conservative primary electorates will have to present a conservative platform. However, after a candidate wins the primary election and successfully secures her party's nomination, she must then charm a very different group of voters—the general electorate. It is this difference between the primary and general electorates' ideological distributions that motivate candidates to shift their ideological platforms after they secure their party's nomination.

Key (1956) argued that primary voters are more ideologically extreme than general election voters. Initially, empirical studies did find that primary electorates were not representative of the general electorate (Ranney, 1968, 1972). Later studies challenged this conclusion (Bartels, 1988; Geer, 1988; Norrander, 1989). But more recently Kaufmann, Gimpel and Hoffman (2003) found that primary voters are more ideologically extreme than general election voters and that open primaries are more representative of the general electorate than closed primaries. Whether or not primary voters are more extreme or more informed than general election voters is not as important as the fact that candidates are facing two very different electorates, and that this motivates candidates to shift their ideological platforms.

Figure 1.2 illustrates an example of how candidate shifting works. In the figure, the median voter positions for the Democratic Primary, Republican Primary, and general electorate are all displayed with dashed vertical lines. The candidates' initial positions (primary campaign platforms) are represented with circles, and subsequent shifts (general campaign platforms) are represented by the tips of the arrows. During the primary campaign the candidates initially portray themselves as either liberal or conservative. After successfully winning their respective parties' nominations both candidates shift their platforms to appear more moderate and end up converging towards the general electorate's median voter. Thus, the model predicts that candidates will diverge during the primary campaigns, and converge during the general election

campaign.

Figure 1.2: Example of Candidate Shifting



The presence of candidate shifting naturally raises questions. Do some candidates shift more than others, and why? Are some candidates more successful at shifting than others, and why? However, on a more technical note the assumption that candidates can adjust their ideology means that I need to estimate two ideology measures for each candidate: one for the primary campaign and another for the general campaign. To my knowledge no other research has attempted to recover multiple ideology measures for a single candidate during a single election cycle. There may be a good reason for this—as it turns out this is not an easy task.

I use donations from Political Action Committees (PACs) to recover candidate ideology. Expectations related to which PACs will give to which candidates will be derived in the next chapter, but in general I assume that all other things being equal, a PAC would rather give money to a candidate who is ideologically close, than to a candidate who is further away. The specifics of my methodology are also covered in chapter 2, but basically it involves recovering PAC positions in the underlying ideology dimension while simultaneously recovering candidate ideology positions in the same space. I used bayesian methods, specifically Markov Chain Monte Carlo (MCMC) simulations, to recover candidate and PAC ideology.

I will also need to estimate three measures of each state's ideology. To develop spatial models for the primary and general elections I will need separate measures of a state's Republican electorate, Democratic electorate, and general electorate. I will also have to make some assumptions about individual voters. Specifically, I will have to deal with the idea that some individuals may vote strategically rather than sincerely.

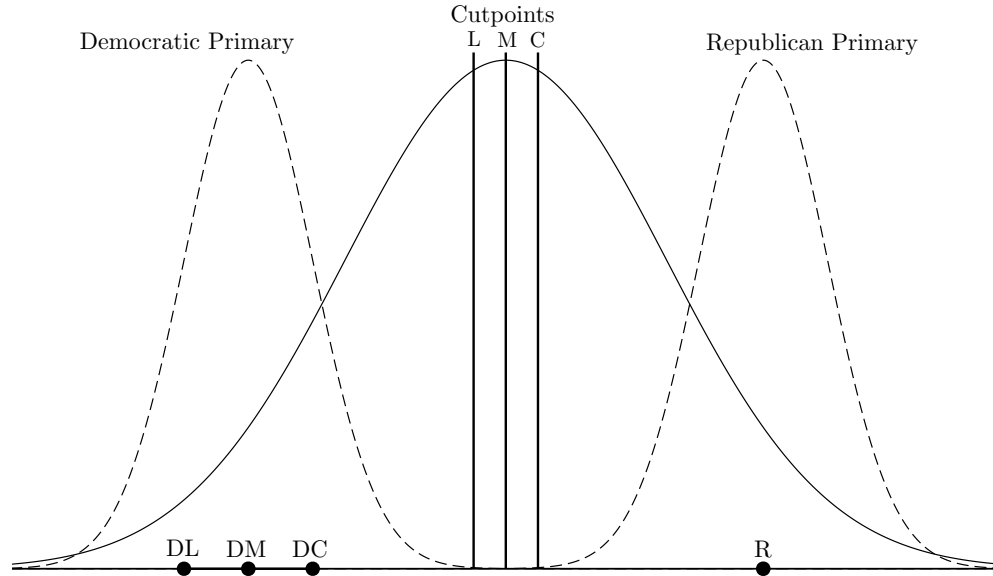
Primary Voters

Do primary voters vote sincerely or strategically? This is an important question to consider because the expectations of the model are dependent on the voters' behavior. Sincere voters simply vote for their most preferred candidate. Here it is the candidate whose ideology is closest to their own. However, individuals who vote strategically take other factors into account and will end up voting for a candidate other than their most preferred. According to Cherry and Kroll (2003), there are two forms of strategic voting—negative and positive. Negative strategic voting occurs when a voter votes for a candidate of the opposite party because the voter believes that the particular candidate will not do well in the general election. Although there are many different reasons that a voter may believe that a candidate will fare poorly in the general election, often times they choose a candidate who is ideologically extreme and does not align well with the general electorate.

Positive strategic voting occurs when voters vote for a different candidate from their own party, other than their most preferred candidate, because they believe that their most preferred candidate may not win the general election. Often this means that a voter will nominate a candidate who is more ideologically moderate than the voter. This idea does have merit. If a voter believes that a particular candidate is much more likely to win in the general election, then he or she may be willing to nominate that candidate over another who is ideologically closer to the voter. This

idea is illustrated in figure 1.3.

Figure 1.3: Strategic Voting



In figure 1.3 there are three Democratic candidates and one Republican candidate. Candidate ‘DL’ is the liberal Democratic candidate, ‘DM’ is the moderate Democratic candidate, and when compared to most of the Democratic voters ‘DC’ would be a conservative Democrat. The only Republican candidate ‘R’ is a moderate Republican. Republican candidate R and Democratic candidate DM are positioned at their respective primaries’ median voter. The three solid vertical lines labeled “Cutpoints” indicate where the general electorate would be expected to split based on which Democratic candidate was nominated. For example, the middle cutpoint labeled ‘M’ indicates that if the Democratic voters nominated the moderate Democratic candidate DM, the general electorate’s vote would be split 50/50 between candidates R and DM.

If voters choose the candidate closest to their most preferred point (i.e. vote sincerely), Candidate DM would win the Democratic nomination and would go on to

face Republican candidate R in the general election. Under pure sincere voting the following integral would allow us to calculate the area under the curve with respect to the Democratic candidate DM:

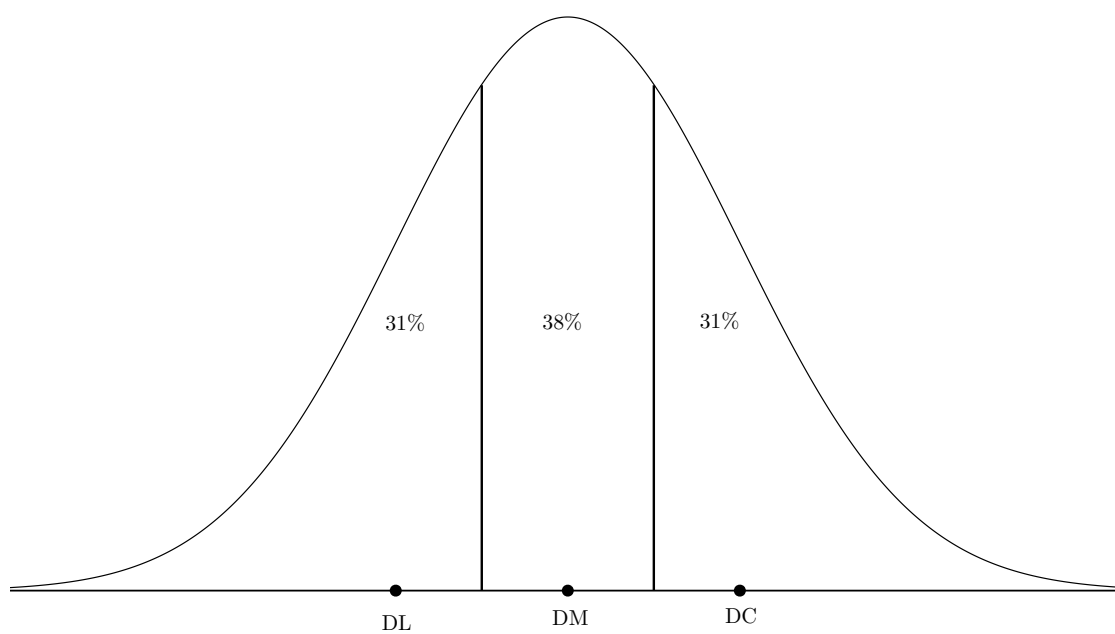
$$pdf_{(DM)} = \int_{DL+0.5\sigma}^{DC-0.5\sigma} \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$$

Basically we sum the area under the curve of the density function starting at the half way point between the liberal Democratic candidate DL, and the moderate Democratic candidate DM (shown by $DL + 0.5\sigma$) and ending at the half way point between DM and the conservative Democratic candidate DC($DC - 0.5\sigma$).³ What we would find is that candidate DM would win the primary with 38 percent of the votes. Meanwhile, the liberal and conservative Democratic candidates would both receive 31 percent of the primary votes. This is illustrated in figure 1.4.

However, if the Democratic voters decided that electability was an important factor in their candidate choice, then we would have to recalculate the expected vote share. To motivate this, let us assume that one-half of voters vote strategically and assign equal weight to ideological proximity and electability. Also assume that these strategic voters have enough information about the candidates and the general electorate's median voter, such that they will only evaluate a candidate as being more electable if in fact the candidate is closer to the general electorate's median voter. For our example this means that the conservative Democrat will gain some of the moderate Democratic candidate's voters, that the moderate Democrat will gain some of the liberal Democratic candidate's voters, but the liberal Democrat will only lose voters. Under this scenario the area under the curve with respect to DM would look more like this:

³To find the proportion of votes that would go to DL you would simply change the intervals to $\int_{-\infty}^{DL+0.5\sigma}$, and for DC to $\int_{DC-0.5\sigma}^{\infty}$

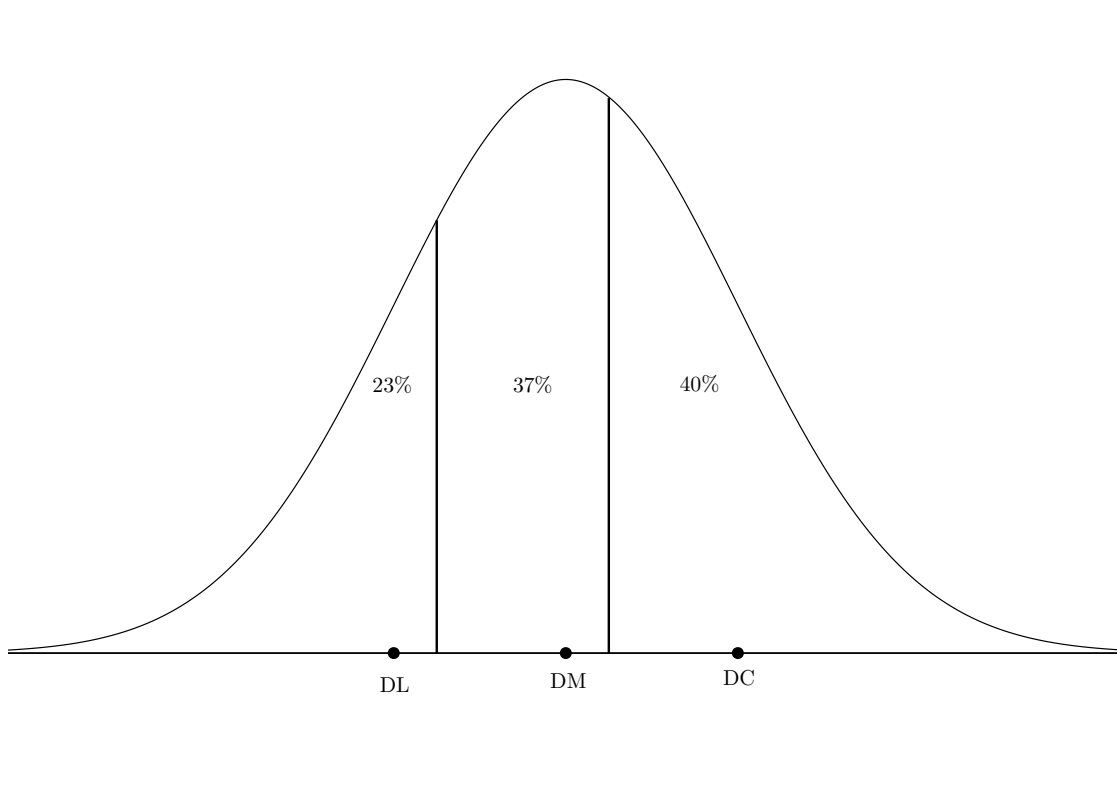
Figure 1.4: Democratic Primary Example: Pure Sincere Voting



$$pdf_{(DM')} = \int_{DL+0.75\sigma}^{DC-0.25\sigma} \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$$

Here half of all voters take electability into account, but they give equal weight to both ideological proximity and electability. Now consider a voter whose ideological position is $DM + 0.45\sigma$. This would place the voter between DM and DC. If the voter only used ideological proximity to evaluate the candidates (i.e. sincere voting) then she would choose DM (since the distance between DM and DC is 1, she is slightly closer to DM). However, if she also evaluates the candidates based on their electability she would end up voting for DC. In fact, if 50 percent of voters acted this way then the conservative Democratic candidate DC would win the primary election with about 40 percent of the vote. The DM would get 37 percent of the vote, and the DL would get 23 percent of the vote. This is illustrated below in figure 1.5.

Figure 1.5: Democratic Primary Example: 50% Strategic Voting



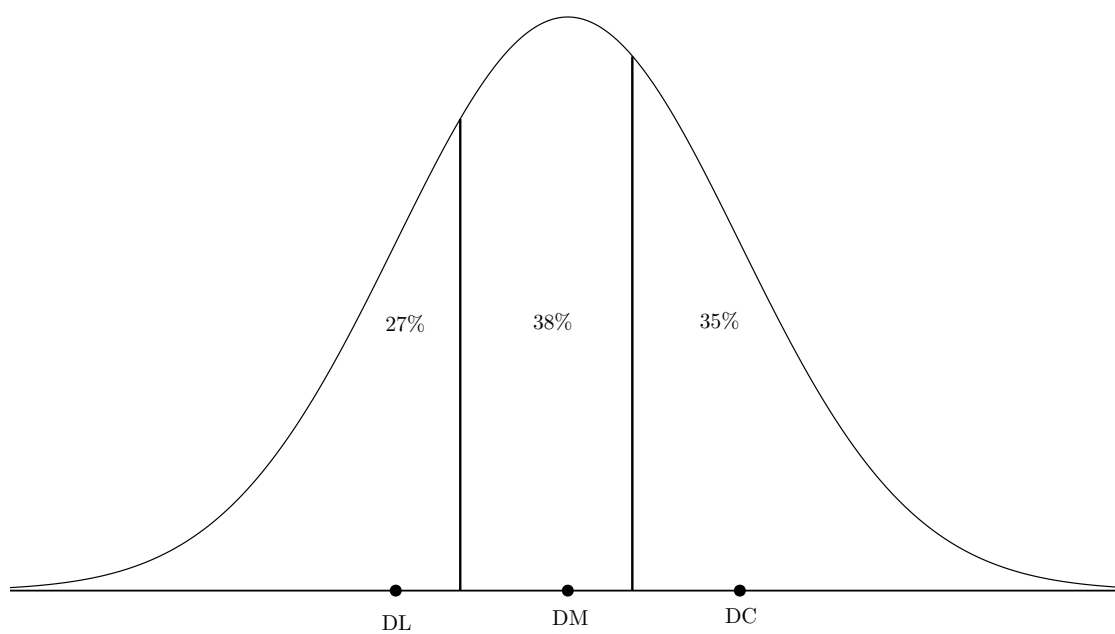
Thus, strategic voting can produce candidates who are not the most ideological representative. Looking back to figure 1.3, the cutpoint labeled ‘C’ shows where the general electorate would split if the primary electorates nominated candidates DC and R. In this example Democratic candidate DC would receive approximately 10 percent more general election votes than would candidate DM. Moreover, DC would clearly win the general election with about 60 percent of the total vote.

Clearly the Democratic voters would be happier with candidate DC representing them in office than they would with candidate R. The problem is that DC’s ideological position could be considered too conservative by many of the Democratic primary voters. Candidate DM is positioned directly in the middle of the Democratic electorate, 50 percent are more liberal than her and 50 percent are more conservative than her; but candidate DC is more conservative than 84 percent of the Democratic primary voters. Even if we assume that voters choose candidates strategically, this amount of distance may not be acceptable to many of the more liberal Democratic voters. In fact, many liberal Democrats may find that the liberal Democratic candidate DL is closest to their ideological position and believe that they would already be sacrificing enough in the way of ideological proximity by nominating the moderate candidate DM.

However, the presence of strategic voting does not have to spell doom for candidate DM. For example, if 25 percent of voters voted strategically then the moderate Democratic candidate DM would still win the election. This is shown in figure 1.6. When 25 percent of the voters consider a candidate’s electability, DM wins with 38 percent of the vote, while DL received 27 percent and DC received 35 percent.

There are, in fact, an infinite number of mixes of sincere and strategic voting arrangements that will lead to a finite number of possible outcomes. As long as voters can accurately order the candidates (i.e. DL is more liberal than DM, and DM is more liberal than DC), then either the conservative Democratic candidate

Figure 1.6: Democratic Primary Example: 25% Strategic Voting



will win, or the moderate Democratic candidate will win. Any addition of strategic voting reduces the liberal Democratic candidate's vote share. Conversely, any amount of strategic voting increases the conservative candidate's vote share. Assuming that strategic voters assign equal weight to ideological proximity and electability, then in this example as long as no more than 37 percent of voters vote strategically, then the most ideologically representative candidate will still win the primary election.

For the purposes of this research I will not assume that individuals vote "sincerely" or "strategically" in the classic sense. I will assume that individuals are free to vote strategically if they choose. Following from the exposition I laid out in this section a large percentage of the electorate would have to engage in strategic voting to change the outcome of the nomination. Even if as many as one-third of the electorate voted strategically the same candidate would be expected to win the nomination as would be expected if all the entire electorate voted sincerely.

The notion of wide spread strategic voting assumes a great deal of knowledge among the electorate in regards to candidates' chances of winning office. Researchers have found that only a small percentage of voters engage in strategic voting (Abramowitz, McGlennon and Rapoport, 1981; Cherry and Kroll, 2003; Kube and Puppe, 2009). The electorate's level of political knowledge is not high enough to support the idea that strategic voting occurs among large portions of the electorate. This idea is actually related to Duverger's Law (Duverger, 1954) where the expectation is that individuals do not want to waste their votes so they will choose whom they prefer most from the two top candidates. Cox (1997) does an immensely thorough job of showing that the conditions under which this type of strategic voting should be expected are fragile.

Why Should We Care?

Why should we be concerned about the effects of partisan primary elections on the outcome of the general election? In general the question of whether or not primaries lead to extreme candidates speaks directly to the health of our electoral system and subsequently our democracy. Based on the theory I described in this introduction, partisan primaries encourage candidates to engage in a strategy that, at the very least, obscures their ideological position. However, this does not mean that all candidates will participate in such shenanigans. As I see it, based on my theory and the ideological difference between primary and general election voters, there are a number of scenarios that all lead to suboptimal outcomes for the electorate.

In one scenario candidates are completely honest about their ideological positions. In this example candidates who are aligned with their parties' primary median voters will win their primary election. But this simply means that general election voters must then choose from these extreme candidates. However, since many voters in the general electorate are not as ideologically extreme as primary voters, they may find that the candidates do not adequately represent their interests. This is precisely what voters are referring to when they talk about choosing the "lesser of two evils." Rather than thinking about their candidate choice as being the best to represent their interests, they think of their choice as the least bad at representing their interests. This is definitely not an optimal outcome.

In another scenario, imagine that candidates behave strategically. In this scenario candidates may position themselves so they gain enough votes to win both the primary and general elections. Somewhere between the median voter of the primary electorate, and the median voter of the general electorate would be the most obvious choice. However, in this scenario the true ideological position of the candidate is unclear. If such a candidate was elected, his or her policy choices may surprise voters. Another problem that arises is that the candidate risks losing the primary nomination to a

candidate who is closer to the party's median voter.

However, keep in mind that my theory allows candidates to shift their ideology after the primary election and align it more closely with the general median voter's ideology. In yet another scenario candidates may actually shift their ideology to align with the relevant median voter. A candidate could appear ideologically extreme to win the primary nomination, and then shift his or her ideology to appear more moderate in hopes of winning the general election. In this case, as with the last, the ideological position of the candidate would be unclear.

All three of these scenarios describe a shabby democratic process. In the first, a multitude of voters are forced to choose between two candidates who are simply too extreme. In the second scenario candidates choose an ideological position that will give them the best chance of winning both the primary and general elections. Moreover, candidates may or may not be revealing their true ideology. And in the last scenario candidates actually shift their ideological location after the primary election is finished. In this last scenario it is clear that candidates are not revealing their true ideology, and are simply deceiving the electorate in order to gain votes.

That being said, the electoral process is not the only thing affected by primaries and extreme candidates. Legislative politics and policy choices can also be affected. Today the U.S. Congress is more ideologically polarized than it has been in 50 years. Figure 1.7 illustrates how polarized Congress has become. The figure begins at the top with the 91st Congress and stops at the 111th. The Ds represent the distributions of Democratic legislators and the Rs represent the distributions of Republican legislators.⁴ There was a lot of ideological overlap between Democratic and Republican legislators in the The 91st Congress. The 91st Congress began on January 3rd 1969. The Democratic Party had a 14 seat majority in the Senate and a 51 seat majority in the House. In fact, it was not until the 97th Congress, which started in 1981, that the

⁴The plots were constructed by the author using DW-Nominate scores (Poole and Rosenthal, 2007).

Republicans held a majority in either chamber—in this case it was the Senate. The Republicans did not hold a majority in the House until the 104th Congress in 1995.

As you can see from figure 1.7, the distribution of Democratic and Republican legislators has gradually polarized. The Democrats have become more liberal and the Republicans have become more conservative. By the 104th Congress there is virtually no ideological overlap between Democrats and Republicans. Moreover, the polarization has increased over the following seven Congresses. Aldrich and Rohde (2000) argue that ideological homogeneity within the parties, and ideological divergence between the parties, leads to Conditional Party Government.

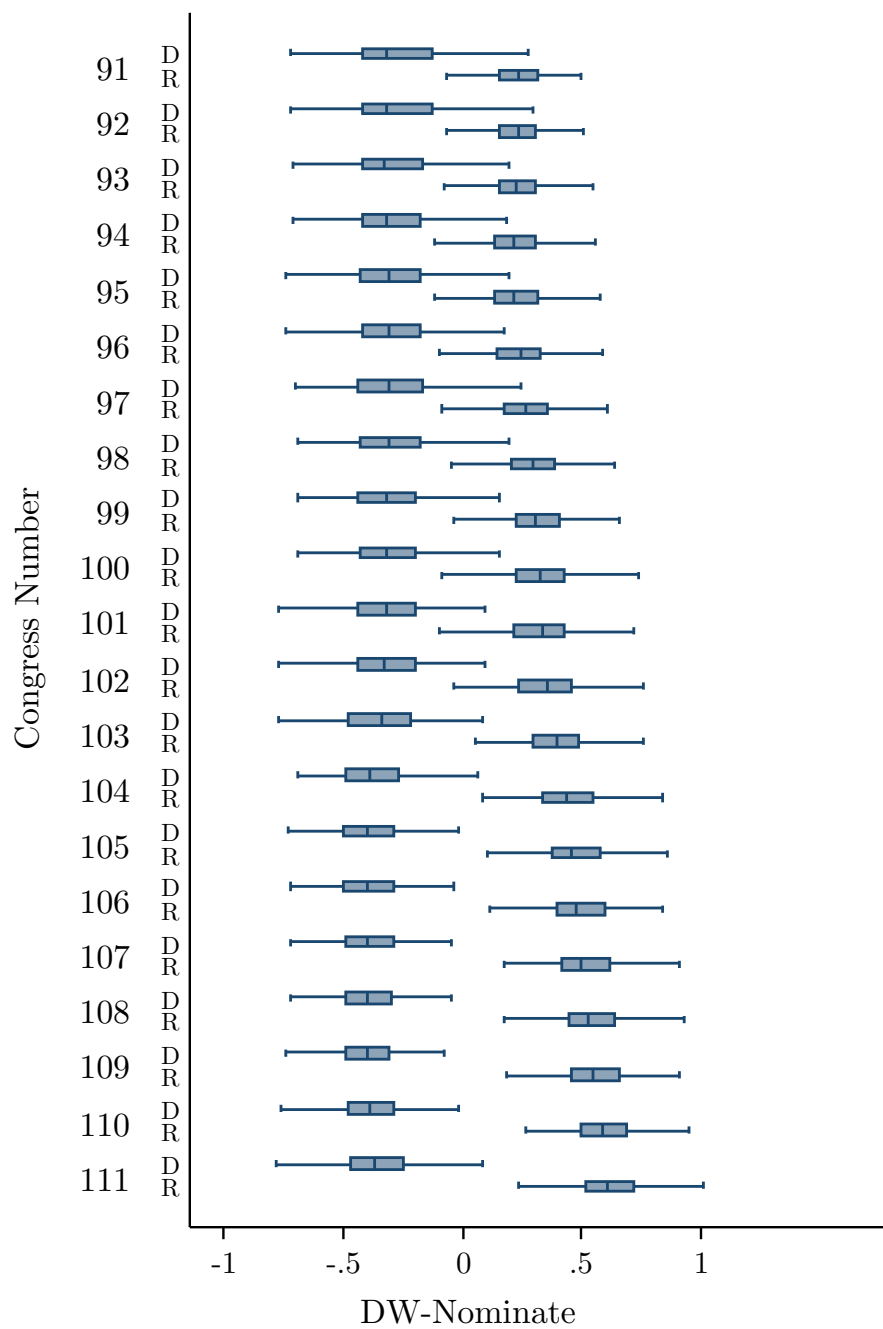
There are several things that occur as a result of Congressional polarization. First, the majority party members will choose policy positions that they find pleasing. An ideologically extreme majority party leads to ideologically extreme policy choices that may only satisfy a small portion of the public.

Moreover, since members of both parties are ideologically extreme, polarization also means the policies that one party finds favorable will be all the more distasteful to the other party. If the majority party attempts to pass legislation that the minority party does not like, disputes will arise. This fighting could lead to legislative gridlock. Depending on the margin of the seats held by the majority party, the minority party could block legislation at various junctures in the policy process.

Congressional polarization could also lead to large swings in policy as one party secures or loses majority status. If members of the minority party spent the past few years watching the majority party pass ideologically extreme policies, the first thing they may want to do when they gain a majority is overturn many of the policies enacted by the previous majority.

On the other hand, there are some positive effects from Congressional polarization. The American Political Science Association raised some concerns regarding the status of the American Political Parties more than 5 decades ago (APSA, 1950). One

Figure 1.7: Congressional Polarization: House of Representatives



of these concerns included clearer choices for the voters. Extreme policy positions do provide a clear difference between the parties.

Outline

For a couple of reasons I chose to test this theory on Senate elections. House elections are rarely competitive. House incumbents enjoy a reelection rate of approximately 90-95 percent. There are various reasons for this lack of competition (heterogeneous districts because of redistricting, information asymmetry), but for my purposes the lack of competition means that candidates will not be attracted to the median voter in either the primary or general election. Thus, the House would not provide the optimal test of my theory.

On a technical note, I would not be able to generate district level ideology measures for the primary electorates in the House. This is because the surveys I use to estimate electorate ideology (and most national surveys) do not have enough observations at the House district level. Therefore, even if I looked past the lack of competition within House elections, I would not be able to provide an empirical test of my theory.

Although Presidential elections may seem like a good choice, because they are competitive and I would have no trouble estimating primary electorate ideology measures, there are simply too few cases to generate reliable parameters from statistical models.

Senate elections, on the other hand, are much more competitive than House elections. This competition should encourage candidates to align their ideology with that of the median voter. Since Senate elections are state-wide, I should have little trouble estimating the ideology of the primary electorates. Moreover, there are approximately 33 Senate elections every two years, so there should be enough cases to obtain reliable parameter estimates.

This dissertation proceeds in Chapter 2 with the development of candidate ideology measures. I model donation decisions from Political Action Committees (PACs) to recover two separate ideology measures for each candidate—one during the primary campaign and other during the general election campaign. The models are estimated using Markov Chain Monte Carlo simulations.

In Chapter 3, I estimate state ideologies. This includes separate ideology measures of each state’s general electorate, Democratic primary electorate, and Republican primary electorate. The state ideology measures were estimated using multilevel modeling approaches. In Chapter 3, I also analyze candidate ideology positioning in reference to the state ideologies. I pay special attention to the difference between candidates’ primary ideologies and their general ideologies.

In the fourth Chapter, I investigate this idea of candidate ideological shifting. I begin by analyzing the various factors that could affect candidate shifting and develop relevant hypotheses around these factors. Using a model of candidate ideological shifting to test the hypotheses, I find evidence that candidates do in fact shift towards the center following a primary election victory.

In Chapter 5, I use the candidate and state ideology measures recovered in the second and third chapters to develop spatial models to predict candidate vote share. Spatial models are estimated for both primary elections and general elections. I find that, during both the primary and general election campaigns, candidates must take into account the ideology of the median voter. I also find some weak evidence that candidates are held accountable in the general election for the ideological position they take during the primary campaign. Finally, in Chapter 6, I summarize some of my most important findings, discuss the possible implications, and recommend some possible directions for future research.

Chapter 2

Candidate Ideology

The political arena is a vast labyrinth of issues and interests that lead to many different policy choices. If you add to this the notion that all politics are local, then synthesizing all of these issues and interests into a simple dimensional space to position any one individual relative to everyone else may seem to be an exercise in futility. However, this has not stopped researchers from trying. Today the word “ideology” has come to be known as the name of this simple dimensional space. Although the actual space that ideology represents is extremely complex, a single left/right dimension describes this complexity with enormous accuracy. For the purposes of this research, I will assume that individual policy preferences can be represented as ideology. The goal for this chapter then becomes estimating Senate candidate ideology.

The difficulty associated with recovering measures of candidate ideology has led many researchers to rely on measures based on roll call votes (Burden, Caldeira and Groseclose, 2000, pg 238). Variants of roll call based ideology measures include NOMINATE (Poole and Rosenthal, 1985, 1991, 2007), Heckman-Snyder (Heckman and Snyder, 1997; Snyder and Groseclose, 2000), ADA scores (Groseclose, Levitt and Snyder, 1999; Levitt, 1996), and ACU scores. These measures use legislators’ roll call voting records, or a subset of the legislators’ roll call votes, to sort out legislators’

positions in a dimensional space.

Some of the research that has focused on describing this dimensional space has questioned the number of dimensions the space should contain. Poole and Rosenthal (2007) used roll call votes from 1789 to 2004 to recover legislators' ideological positions. They found that 84.5 percent of all roll call votes for the House and 82.3 percent of all roll call votes for the Senate were classified correctly using a single dimension. When they added a second dimension the percent correctly classified increased 2 percent in the House (from 84.5 to 86.5 percent), and 2.9 percent for the Senate (82.3 to 85.2 percent). They found that adding dimensions beyond the second provides no additional benefit to the model's fit. They claim that, "the first-dimension almost always divides the two major political parties while the second dimension picks up divisions within the parties" (Poole and Rosenthal, 2007, page 42). This second dimension of ideology was usually characterized by regional differences on issues of race (e.g. slavery, civil rights).

However, Jackson and Kingdon (1992) argued that there are fundamental problems inherent in measures of ideology based on roll call votes. Primarily they claimed that it is very difficult to parse out a legislator's true ideology from the influences of party leadership, constituencies, and interest groups. Moreover, they argue that using roll call based measures of ideology to predict legislator votes is inappropriate. Instead, an exogenous measure of ideology—independent of voting record—would be much more desirable. Hill, Hanna and Shafqat (1997) attempted to obtain exogenous measures through the use of newspaper stories; but, Burden, Caldeira and Groseclose (2000) analyzed 9 different measures of Senator ideology, including those of Hill, Hanna and Shafqat (1997), and found that measures of ideology that use roll call votes are at least as good as any other measures.

Although roll call based measures of legislator ideology have proven to be extremely useful, there are several reasons that I would not be able to use them for this

study. The most important reason is because of my assumption that candidates can adjust their ideology as the campaign progresses. Using a roll call based measure of ideology would not allow me to estimate separate ideology measures for the primary and general campaigns. This would not allow measurement of any ideological shifting or adjustment between the primary and general campaigns.

Aside from not being able to obtain two separate ideology measures for each candidate, using roll call votes to estimate ideology would not allow me to recover the ideology of candidates who had not served in office. This would eliminate many challengers, and in some cases entire openseat elections. For these reasons I needed to find a different way to recover candidate ideology. I chose to use campaign donations from PACs to candidates as a way to recover the ideological dimensional space.

PAC Donations

It is clear that PACs are interested in affecting political campaigns. In 2008, PAC independent expenditures against candidates for federal office where more than \$300 million, independent expenditures for candidates totaled more than \$194 million, and contributions directly to candidates were nearly \$472 million. All told, PACs spent \$1 billion on federal elections in 2008.¹

Ultimately, PACs are interested in the political process because they are concerned with affecting policy outcomes. However, previous research has tried to reveal why a PAC chooses one candidate over another. PACs tend to favor incumbents over challengers (Endersby and Munger, 1992; Grier and Munger, 1993). Congressional incumbents are reelected at large rates. In the House, approximately 95 percent of incumbents seeking reelection are successful. Senate incumbents are not as successful, but their reelection rates are still usually in the mid to upper 70 percent range. If PACs are serious about affecting policy outcomes, they need to work with candidates

¹These data came from the Federal Elections Commission: <http://www.fec.gov/>

who are likely to win elections. Thus, it is understandable that they would favor incumbents over challengers.

Others have found that PACs focus campaign contributions on legislators who hold seats on committees with relevant jurisdiction (Cox and Magar, 1999; Grier and Munger, 1993, 1991; Munger, 1989). If PACs want to affect policy in specific areas of interest, it would make sense to support members of Congress who hold seats on committees that are charged with formulating policy in those specific areas of interest. Research also suggests that majority party membership can translate into more PAC donations (Cox and Magar, 1999). Since the majority party sets the Congressional agenda, PACs will be more successful in getting policy changes with the majority party. Grier and Munger (1993) found that committee membership was important in the House, but party was more important than committee membership in the Senate. This makes sense when you think about some of the differences between the House and the Senate. The additional 335 members make floor debate in the House much more cumbersome than in the Senate. Senators have more freedom to debate the tenets of a given bill than members of the House. Thus, it would make sense for a PAC to focus more heavily on committee membership in the House than in the Senate.

Research has also assumed that competitive elections attract more PAC contributions than non-competitive elections (Grier and Munger, 1986; Poole, Romer and Rosenthal, 1987). Poole, Romer and Rosenthal (1987) argued that each dollar spent is more productive in a close race than in a non-competitive race. The idea here is that there is little reason to focus on an election that is a sure thing. Instead, PACs should spend their money on close races where they have a chance to influence the outcome. However, some authors have argued that campaign donations are really about buying access to legislators (Hall and Wayman, 1990; Langbein, 1986; Poole and Romer, 1985). If this is true, then campaign donations do not necessarily need to

be aimed at affecting the outcome of an election. Instead, affecting policy outcomes would be the primary goal of a PAC's donation. To the extent that donations affect the amount of influence PACs have on legislators, PACs will be inclined to give money even in non-competitive elections.

Here I argue that, whether the reasons are related to committee jurisdiction, competition, or access, all other things being equal, a PAC would rather contribute to a candidate with an ideology that most closely fits with its own (Grier and Munger, 1986; Poole and Romer, 1985; Poole, Romer and Rosenthal, 1987). According to McCarty and Poole (1998) (pages 2-3), this type of spatial model of PAC contributions has been widely accepted by campaign finance scholars.

Very little research has attempted to use PAC donations to recover candidate ideology. To my knowledge, Poole and Romer (1985) was the earliest attempt to use PAC donations to estimate candidate ideology. A bit more work was done in McCarty and Poole (1998). And most recently, Bonica (2010) presented a paper at the 2010 Midwest Political Science Association's Annual Meeting. There are a few differences that separate the way I use PAC donations from how these previous studies used PAC donations.

Poole and Romer (1985) and McCarty and Poole (1998) organized their data by House district. In Poole and Romer (1985), a PAC was thought to support a candidate if it gave money to the candidate, and oppose the candidate if it gave money to the opponent. This may not seem like a problem since PACs normally decide to favor one candidate over the other in a particular race. However, there are many occasions when PACs do donate to opposing candidates. In the Senate races from 2000 through 2008, approximately 33 percent of PACs gave to opposing candidates in primary elections, and approximately 25 percent gave to opposing candidates in general elections. The problem I see is related to how PACs will be classified. For example, say there are two PACs (PAC-A and PAC-B) and two candidates (Candidate-A and Candidate-B)

running against each other. PAC-A donates \$1000 to both candidates in a particular district's election. PAC-B, on the other hand, gives no money to either of the candidates. Since PAC-A gave \$1000 to both candidates, the donation to Candidate-A would be cancelled out by the donation to Candidate-B. So, in reference to the particular election, PAC-A and PAC-B would be classified identically. However, PAC-A is clearly much more interested than PAC-B in this particular election.

McCarty and Poole (1998) tried to solve this by arguing that, if the PAC gave more money to one of the candidates, then that would be the candidate that the PAC supported. However this is not the best solution. This can be seen if we return to the same situation as the preceding paragraph, but change the donations around a bit. Say that PAC-A gives \$1000 to Candidate-A and \$900 to Candidate-B. PAC-A would be classified as supporting Candidate-A. Now say that PAC-B gives \$1000 to Candidate-A and nothing to Candidate-B. Both PACs would be classified as supporting Candidate-A, and as not supporting Candidate-B. In this case both PACs may have the same feelings about Candidate-A, but clearly their feelings about Candidate-B are not the same. However, both would be classified as not supporting Candidate-B when PAC-A clearly has a more positive view than PAC-B of Candidate-B.

Bonica (2010) has improved on these earlier studies by compressing the donation amounts into count data and using methods from item response theory. Moreover, he used compressed "contribution amounts for contributor-candidate pairs as the unit of observation" (Bonica, 2010, page 6). This allowed candidates in the same election to be separated from one another. However, I cannot use this method in my research because of the restrictions that are placed on the PACs and candidates. For a candidate to be included in the analysis, he or she must receive donations from 30 or more unique PACs. For a PAC to be included, it must donate money to 30 or more unique candidates (Bonica, 2010, page 12). This 30 or more threshold is

probably acceptable for House elections; however, since I look at Senate elections, where approximately 33 seats are up for election during each cycle, dropping PACs that give to fewer than 30 candidates would remove most of the PACs. As the deletion process ensued, I would find that the number of candidates who received 30 or more donations from PACs that gave to 30 or more candidates, would quickly approach 0. Ultimately, the number of observations would be much too small for any reliable estimation. Furthermore, there are also some serious statistical problems that have yet to be addressed; specifically, reconciling the maximum likelihood estimation with the “incidental parameter problem.”

Although a thorough discussion of the incidental parameter problem is vastly beyond the scope of this dissertation, a few words may be useful. To my knowledge, the problem was first revealed by Neyman and Scott (1948).² In short, the incidental parameters problem is that maximum likelihood estimators may not be consistent as the number of incidental parameters in a model increases (where “incidental parameters” are parameters that are not directly connected to any information). Models that estimate latent dimensions must face the incidental parameters problem. In the models described here, the candidate ideology estimates themselves are incidental parameters. Jackman (2009) gives a simple equation to estimate the number of incidental parameters: $p = nd + m(d + 1)$. Where p is the number of incidental parameters, and for our purposes n is the number of candidates, m is the number of PACs, and d is the number of dimensions. Bonica (2010) scales 3572 PACs and 3314 candidates from 1980-2008. This comes to 10,458 incidental parameters in a one-dimensional model. However, including fixed effects and scaling variance terms for individual PACs and candidates, and over-dispersion parameters for candidates, the model actually has many dimensions. In this case, the number of incidental parameters would be in the

²A survey of the incidental parameters problem and recent developments with it can be found in Lancaster (2000). Many statisticians are highly concerned with this problem and very recent articles are still trying to find solutions (e.g. see Moreira, 2009). However, in the social sciences, concern for this problem is much less frequent.

30,000 range. Aside from the inconsistency that arises from such a large number of incidental parameters, Jackman (2009) argued that “computing standard errors for maximum likelihood estimates is often impractical, since the information matrix is too large for direct inversion” (page 438).

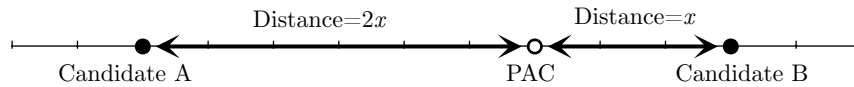
PAC Decision Criteria

Assuming that PACs have a limited amount of money available for campaign donations, there are essentially two things they must consider when making donation decisions. First is the likelihood that the particular candidate will go on to win the election. Second is the likelihood that, once in office, the candidate will work to adopt policy positions that are favorable to the PAC. To date, research has focused more on the first criterion—the likelihood that the candidate will win the election. Much less work has been done on the second criterion—will the candidate adopt favorable policy positions. I argue that this second criterion can be estimated based on a candidate’s ideological distance from a PAC.

Figure 2.1 illustrates the logic behind using ideological distance as a criterion for PAC donation decisions. For the purposes of simplicity assume there are two candidates (candidate A and candidate B) running for the same office, that the PAC only has enough money to support one of the candidates, and that each candidate has an equal chance of winning the election. Since the last assumption (which is the first criterion for a PAC’s donation decision) does not help the PAC decide which candidate’s campaign it should give money to, the PAC must decide which candidate is more likely to adopt policy stances that it finds favorable. To make this decision, the PAC would look at the policy positions that the candidates support, they may even have had direct contact with the candidates, and estimate the candidates’ ideology distance from their own. In this case they would find that Candidate B’s distance from their own is x , and that Candidate A’s distance is twice that, or $2x$. The PAC

should come to the conclusion that Candidate B is more likely to adopt a policy position that it would find favorable.

Figure 2.1: Second Criterion - Ideological Distance



However, if we adjust some of our assumptions, then the PAC may not arrive at the conclusion that Candidate B is the best choice. For example, if Candidate A was much more likely to win the election, the PAC may decide that giving money to Candidate B would be a waste and that their money would be better spent trying to curry favor with the likely winner. It could also be the case that the PAC has enough money to provide campaign donations to both candidates. In that case, if Candidate A was still the likely winner, the PAC could give money to both candidates, just in case Candidate B did win the election.

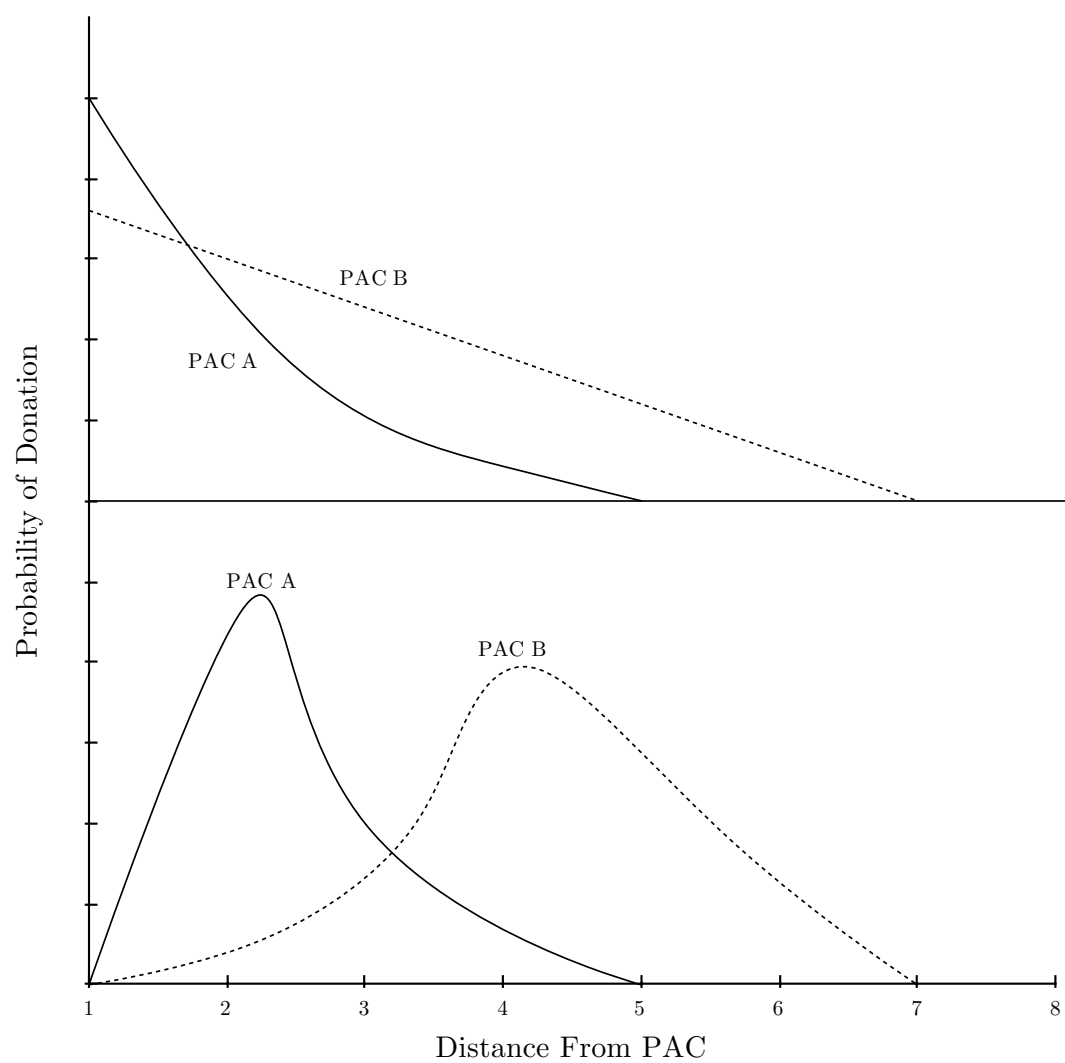
Before I specify a statistical model to recover candidate ideology, I wanted to reiterate the theoretical framework that the statistical model will be built upon. First, candidates choose an ideological position for the primary campaign. Then, candidates can adjust their ideological position after the primary election. PACs have a limited amount of money they can spend on campaign donations. Thus, they use two considerations to decide which candidates they will support. First, they favor candidates who have a good chance of getting elected. Second, PACs also choose candidates who are likely to support policy positions the PACs find favorable, once the candidates are in office.

There is at least one caveat that needs to be discussed. If the ultimate goal of a PAC donation is to affect policy outcomes, then there is a possibility that PACs will not give money to candidates who have ideologies that are precisely the same as their own. The idea being that a PAC will not need to influence a candidate whose ideology is the same as its own, because the candidate will vote for the PAC's preferred policy outcome, whether or not the PAC gave the candidate money. On the other hand, candidates who have ideologies that are close, but not exactly the same as the PAC, may be the best targets for a PAC's donations. In this case, a PAC's donation could influence the candidate enough to vote in line with the PAC's position.

Figure 2.4 illustrates the theoretical relationship between ideological distance and the probability of a donation. The bottom panel illustrates two of the possible shapes that we would expect if PACs *do not* give money to candidates whose ideologies are exactly the same as their own. The top panel shows two of the possible shapes that we would expect if PACs *do* give money to candidates whose ideologies are most similar with their own. You should notice that although the PACs' shapes change dramatically between the top and bottom panels, the basic attributes of PACs A and B—*relatively to each other*—do not change from top panel to the bottom panel. In both the top and bottom panels PAC-A is much more interested in giving money to candidates who have similar ideologies to its own than is PAC-B. Moreover, in both panels PAC-A's probability of giving to candidates whose ideologies are further from its own is much smaller than is PAC-B's probability. There are a number of ways that these results could be derived. It could be the case that PAC-B is much more confident in its ability to influence candidates. It could also be that PAC-A's interests are much more narrow than those of PAC-B.

The potential problem that this raises is if PACs do not give money to candidates who are ideologically similar to themselves, then I cannot rely on PAC donations to recover candidate ideology. However, as I discuss in the next section ("Estimating

Figure 2.2: Caveat to Ideological Distance



Candidate Ideology”), I do not rely solely on the distance between PACs and candidates to predict PAC donations. I also include variables that measure characteristics other research has found to be important to PAC donation decisions. Be that as it may, I will still need to keep this caveat in mind as I proceed with this study. Moreover, I will proceed under the assumption that all other things being equal, PACs are more likely to give money to candidates who share their ideological dispositions than to candidates who do not.

Estimating Candidate Ideology

In most cases, PACs favor one candidate over the other in a particular race. However, I mentioned previously that there are many occasions when PACs do donate to opposing candidates. In the Senate races from 2000 through 2008, approximately 33 percent of PACs gave to opposing candidates in primary elections, and approximately 25 percent gave to opposing candidates in general elections. Either way, a PAC must ultimately decide whether or not they will donate money to a particular candidate. Here a PAC’s decision to donate to a particular candidate is boiled down to a dichotomous indicator—either the PAC gave money to the candidate or it did not. The result is a candidate by PAC matrix of donation decisions. The cell is given a zero if the PAC did not donate to the candidate, and a one if it did donate to the candidate. I assume that PACs’ donation decisions over all candidates are characterized by a Bernoulli distribution, such that the expected value of their choice (Y) is p .

$$Y = \begin{cases} 1 & \text{with probability } p \\ 0 & \text{with probability } 1 - p, \end{cases} \quad \text{where } 0 \leq p \leq 1$$

Thus,

$$\text{Expected}[Y] = 1p + 0(1 - p) = p$$

Equation 2.1 displayed below is the probability that PAC_{*j*} will donate money to candidate_{*i*}, and illustrates the statistical model I used to estimate PAC donation decisions and recover Senate candidate ideology. Other model specifications were also used, for example: $Prob_{ij} = \alpha_j - \beta_j[(I_j - I_i)^2]$. This introduced a parameter to weight the spatial term (β), and a constant (α). However, it made very little difference to the final ideology estimates. The probability that PAC_{*j*} will donate money to candidate_{*i*} is based on an *i* by *n* matrix (**X**) of candidate and election specific characteristics that PACs use to estimate the likelihood that a candidate will win the election.

$$P_{ij} = \mathbf{X}_i \beta_n - [(I_j - I_i)^2] \quad (2.1)$$

The characteristics included in the matrix (**X**) that PACs use are based on the first PAC decision criterion: the likelihood that the candidate will win office. These include whether or not the Senate seat was open. A given challenger is much more likely to win an openseat contest than to beat an incumbent. Incumbents have many advantages over challengers, thus all other things being equal a PAC would prefer to support an incumbent rather than a challenger. PACs may also prefer candidates who identify with the majority party, and candidates who chair committees. I also include a measure for the competitiveness of the election.

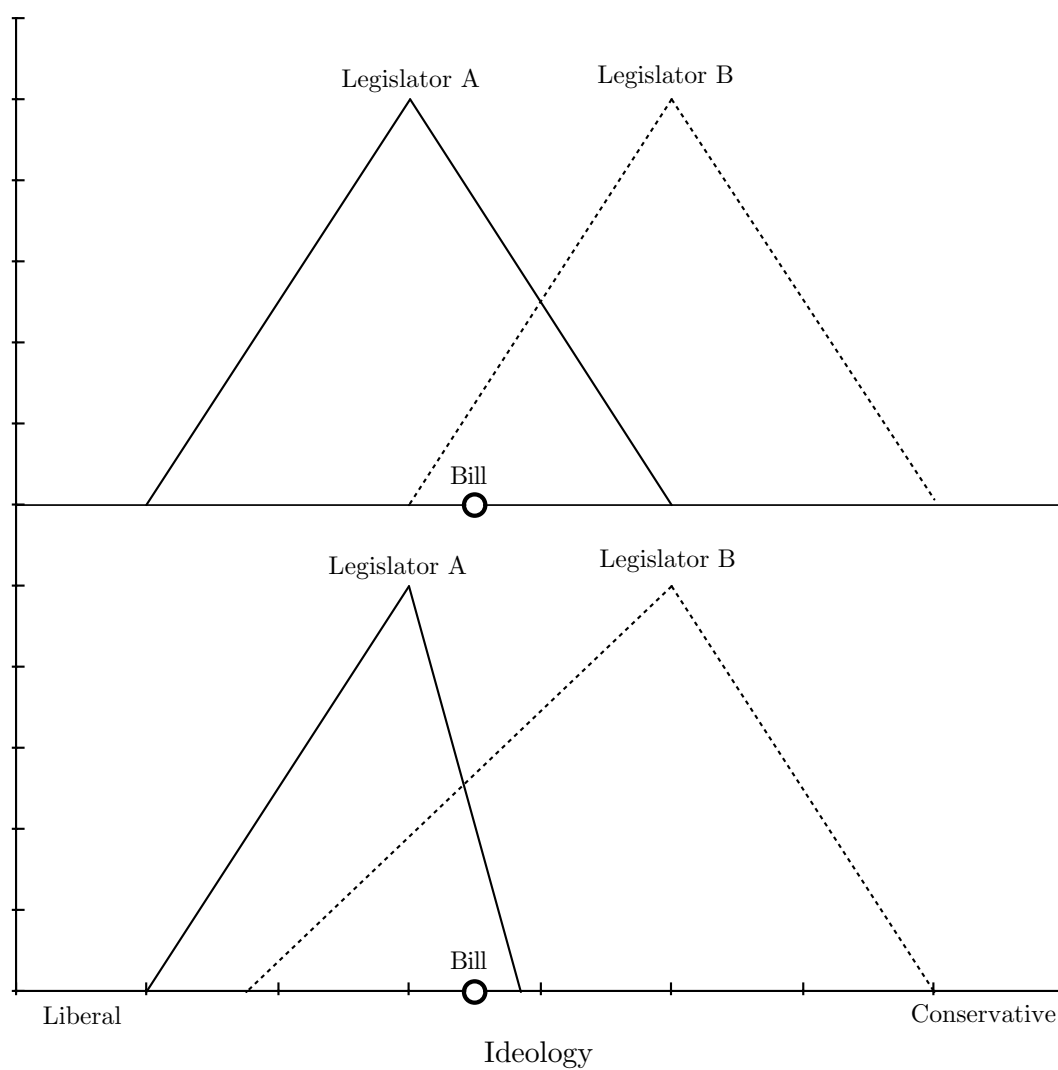
The probability that PAC_{*j*} will donate money to candidate_{*i*} is also based on the second PAC decision criterion: the likelihood that the candidate will adopt policy positions that are favorable to the PAC. To capture this likelihood, I use the distance between the ideologies of PAC_{*j*} and candidate_{*i*} in a single dimension policy space. This is represented by the term: $[(I_j - I_i)^2]$.

Candidate Ideology Shape

The form of a candidate's ideology should not be thought of as a single point. Once a candidate is in office she has the freedom to vote any way she would like on a particular piece of legislation. In terms of the ideology dimension we have been discussing, she can take a position that would be characterized as liberal on one vote, and a conservative position on the next. Even if the two votes are for the exact same or a similar piece of legislation, legislators are technically free to vote any way they choose. Therefore, a legislator's ideology is best described as a density where the probability that she will vote yea for a particular piece of legislation is related to the thickness of her density at the position of the legislation. In the same light, a candidate's ideology is also better characterized as a density where a candidate's probability of taking a specific ideological position is directly related to the density of her ideological distribution. This idea is illustrated in figure 2.3.

The densities in the top panel of figure 2.3 represent the ideologies of two different legislators. Following from Black (1958) the legislators' ideologies are single-peaked and monotonically decreasing from their ideal points. I assume that a legislator's probability for supporting a given policy position is related to the height of that legislator's density at the given position. Legislators have the highest probability of supporting a policy position that lines up directly with the peak of their density. The point in figure 2.3 labeled "Bill" represents the location of a yea vote for a particular piece of legislation. First look at only the top panel. Both legislators A and B have some probability of supporting the bill; however, Legislator-A has a higher probability of supporting the bill than Legislator-B. The distance between the location of the Bill and Legislator-A's ideal point (peak) is smaller than the distance between Legislator-B's ideal point and the Bill. This same idea is relevant for candidates who are running for office. PACs must form some belief about how different candidates will vote when

Figure 2.3: The Shape of Ideology



faced with various policy choices. If a particular PAC would prefer a candidate who would support the Bill, then in the top panel of figure 2.3, the PAC would choose to donate money to Legislator-A.

PACs must also consider the shape of a candidate's ideology. This point is illustrated in the bottom panel of figure 2.3. In the top panel, the legislators' densities have the same shape. But this does not have to be the case, and undoubtedly it is not the case. The bottom panel of figure 2.3 shows a different scenario. The location of the Bill has not changed from the top panel; moreover, the legislators' ideal points have also remained unchanged. Thus, the distance between the Legislators' ideal points and the location of the Bill is the same in the bottom panel as it is in the top panel—in which case the location of the Bill is still closer to Legislator-A's ideal point than it is to that of Legislator-B. The only difference between the top and bottom panels are the slopes of the legislators' densities. Specifically, the right-side slope of Legislator-A's ideology has gotten steeper and the left-side slope of Legislator-B's ideology has gotten flatter. Yet in the bottom panel, Legislator-B has a higher probability of voting for the Bill, than Legislator-A. This is because in the bottom panel Legislator-B's density is much wider than that of Legislator-A.

In both the top and bottom panels, Legislator-A is more liberal than Legislator-B. However, in the bottom panel, Legislator-B finds a much wider range of policy positions acceptable than does Legislator-A. When PACs make decisions about the probability that a candidate will adopt a policy position that they find acceptable, they must take into account the shape of a candidate's ideology. If we replaced the "Bill" in the two separate scenarios in figure 2.3 with a "PAC" and the legislators with candidates, we could tell a similar story about which candidate a PAC should support. In the top panel the PAC should support Candidate-A, but in the bottom panel the PAC should support Candidate-B.

The statistical ramifications of this are relevant for summary measures of can-

didates' ideologies. In each election cycle, approximately 50 or so viable candidates run in Senate elections. Over the course of 5 election cycles (2000 to 2008), there are around 250 candidates. If we obtain separate measures of each candidates' primary and general ideologies, that comes to approximately 500 data points. It is not feasible to view 500 separate densities; thus, at some point summary measures for each candidate will have to be used.

The two most obvious choices are the candidate mean and median points. The more “normal” a given candidate’s density is (like the top panel of figure 2.3) the closer the mean and median values will be. The difference between these two summary measures will be minor. However, if candidate densities look more like the bottom panel of figure 2.3 then the difference will be larger. Moreover, the choice of using one over the other will become more consequential. Here I will use the candidate *mean* values to represent summary measures of ideology. This choice fits with the example illustrated in figure 2.3. If we chose to use the candidate median values then we would have to change the expectation for the bottom panel of figure 2.3. The expectations would change because although Legislator-B’s mean is closer to the Bill in the bottom panel, Legislator-A’s median is still closer.

Methodology: Bayesian Inference

I used bayesian techniques, specifically Markov Chain Monte Carlo simulations, to estimate the model displayed in equation 2.1. There are some good reasons for this choice. First, I am exhausting the entire universe of PAC donations to Senate candidates between the years 2000 and 2008. Jackman (2009) pointed out the following in regards to datasets that incorporate all units of analysis, “*there is no uncertainty due to variation in repeated sampling from a population*: the data available for analysis exhaust the population of substantive interest” (page xxxi, emphasis in original). If I were to take another “sample” of PAC donations to senate candidates, it would be

identical (barring any coding errors) to what I have now. Since I am not interested in making inferences about the likelihood of the data, it would not be appropriate to make inferences based on standard errors and p-values. Thus, a bayesian approach that allows me to make inferences about the model based on the data is much more appropriate.

This approach also allows me to use each individual candidate as an independent unit of analysis. Other studies have used each election (McCarty and Poole, 1998) or contributor-candidate pairs (Bonica, 2010), as units of analysis. For the purposes of those studies, their units of analysis were more than satisfactory. However, for the purposes of this study, using individual candidates as the units of analysis is more appropriate. This is particularly important when estimating candidate ideology during primary campaigns, since the candidates may look quite similar and receive donations from similar PACs. For example, if two Senate candidates are running against each other and both receive donations from the National Rifle Association (a conservative interest group), I will not have to decide which candidate is more preferred by the NRA. In this case, the model will simply continue to estimate the candidates' ideologies regardless of whether or not they are running against each other.

Another benefit to using this approach is that I do not need to assume that PAC donations are independent of one another. It could be the case that some PACs take cues from others. For example, if the NRA donated to a few candidates, some conservative PACs may decide to donate based on the NRA's decision. In the same example, liberal PACs may also take the NRA's donation as a cue to not donate money to a candidate. It could also be the case that the conservative PACs would not give money to the candidates who received donations from the NRA because those candidates would not need the money. There are several ways that independence across donations could be violated. However, previous research that used ML

estimation had to assume that donations were independent.

The number of parameters that need to be estimated can become quite large. Using ML estimators to optimize models with so many parameters is problematic (recall the earlier discussion about the “incidental parameters problem.”). It is computationally difficult to compute standard errors for ML estimates since the PAC-candidate matrices are so large they cannot be directly inverted. Moreover, ML estimators lose some of their desirable properties, most notably consistency, as the number of incidental parameters increases (Neyman and Scott, 1948). On the other hand, the Bayesian approach used here—building up a Monte Carlo based approximation by sampling from conditional densities—is much more computationally efficient.

Finally, according to Jackman (2009), one of the most important inferential questions facing latent variable models is what should we believe about the latent variables given the observed indicators. The Bayesian approach I use here provides a straightforward answer to this question.³

However, there is still another hurdle to cross. Consider the following scenario where two individual candidates, I_L and I_C have different ideological preferences. Let us say that I_L has liberal preferences and I_C has conservative preferences. If we would like to estimate the extent of their differences, we would have to quantify the concepts liberal and conservative. Now say that we use the equation, $I_L + I_C = 0$, to estimate these quantities. We would find that the equation could be satisfied by substituting $I_L=2$ and $I_C=-2$. However, $I_L=-2$ and $I_C=2$ would also work. The point is that as long as I_L and I_C are opposite one another, the substantive interpretation of the estimates will remain the same. The problem this poses is that the candidates could appear to have a bimodal distributions. One way to think about a bimodal

³In general, Bayesian inference provides for straightforward interpretation of inferential questions. Bayes Theorem for continuous parameters is: $p(\theta|y) \propto p(y|\theta)p(\theta)$. It is read as the probability of the posterior distribution is proportional to the likelihood times the prior distribution. But if you replace θ with “hypothesis” and y with “evidence” you could read this theorem as: the probability of my hypothesis given the evidence, is based on the likelihood of the evidence given my hypothesis augmented by my prior beliefs about my hypothesis.

distribution is that some variable x has an expected value of Y with probability α , but with probability $1 - \alpha$ the expected value of x is Z . As the algorithm samples values over the distribution there is a chance that it will sample values where $I_L=2$ and $I_L=-2$. Technically this would entail an identification problem, and ultimately we would be left with a bimodal distribution.

To solve this dilemma, Clinton, Jackman and Rivers (2004) argued, “In d -dimensional choice spaces, $d(d+1)$ linearly independent *a priori* restrictions on the ideal points are required for identification” (page 357). Here I follow this recommendation and fix the values of two candidates and force two PACs into truncated distributions.⁴ After the prior distributions are set and the dimensional space is identified, values are sampled across the parameter space based on the probability of the posterior distribution: $p(\theta|y) \propto p(y|\theta)p(\theta)$. This is read as the probability of the posterior distribution is proportional to the likelihood times the prior distribution. For my purposes, I would ask: what can we learn about a candidate’s ideology, by looking at the PACs that donated to the candidate’s campaign?

Ideally, all PACs and candidates would be included in the estimation, but it would not be possible to estimate the ideology of candidates who did not receive any PAC donations. In the same regard, it would not be possible to estimate PAC ideology for PACs that did not donate to any candidates. Initially I used the number 10 as a cutoff point. If a candidate received donations (of \$100 or more) from 10 or more different PACs, then he or she was included in the analysis. Furthermore, PACs were required to have given donations (of \$100 or more) to at least 10 different

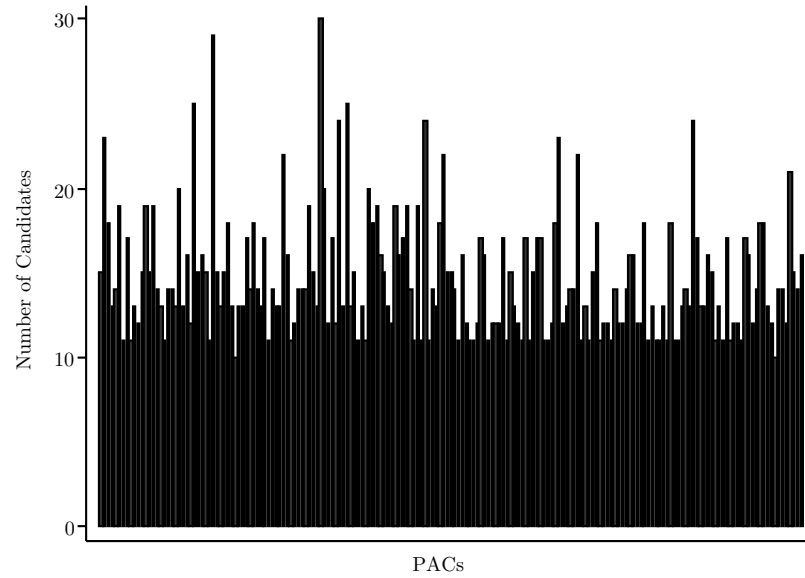
⁴The liberal candidate was fixed at -1.3 and the conservative at 1.3. After the dimension was estimated and all of the other candidates had ideal points, the ideal points of the candidates with fixed values were estimated while holding all of the other candidates at their ideal points. In 2000 Kennedy from Massachusetts was the liberal candidate and Burns from Montana was the conservative. In 2002 the liberal candidate was Durbin from Illinois, and the conservative was Inhofe from Oklahoma. In 2004 Schumer of New York was the liberal, and Bunning from Kentucky was the conservative. In 2006 Menendez from New Jersey was the liberal, and Kyl from Arizona was the conservative. In 2008 Franken from Minnesota was the liberal, and Chambliss of Georgia was the conservative. PACs were chosen based on how liberal or conservative the candidates they donated to were. In most cases, a labor PAC ended up to be the liberal PAC, and a corporate PAC was the conservative.

candidates, to be included in the analysis. Dropping candidates or PACs that did not receive or give enough donations is analogous to dropping unanimous roll call votes. Unanimous roll call votes, or in this case candidates or PACs that did not receive or give donations, provide no information about the dimensional space that we wish to describe. However, using this criterion left me with more than 500 PACs for each election and with a large majority of candidates receiving donations from more than 100 of those PACs. Even with two candidates' positions fixed, the models still had trouble identifying many of the other candidates' positions, which resulted in bimodal distributions. Thus, I used a second criterion to reduce the number of PACs. PACs that did not show a certain amount of discrimination based on party identification were excluded from the analysis. Specifically, a PAC needed to focus 70 percent of its donation choices to members of a single party to be included in the analysis.

With these strict criteria, the number of PACs became much more manageable. For example, during the 2000 general election campaign 189 PACs met these requirements. Figure 2.4 illustrates the number of candidates that each PAC gave to during the 2000 general election campaign. Most PACs donated money to somewhere between 10 and 20 candidates. In some years more PACs were included and in other years there were less, but overall this represents a fairly typical election year.

The summary statistics for the candidate characteristics included in the matrix X are displayed in table 2.1. *Party ID* is coded -1 for Democrats, 1 for Republicans, and 0 for all others. *Incumbent* is coded 1 for incumbents and 0 for non-incumbents. *Committee Chair* is coded 1 if the candidate was the chair of a standing Senate Committee during the session preceding the election. *Open Seat* is coded 1 if the incumbent is not running for reelection, and 0 if he or she is running for reelection. *Primary Election Competition* was coded as 0 if the candidate was unopposed during the primary election, and 1 if the candidate was opposed. *General Election Competition* is based on candidate vote share. Specifically, the general election vote share percent was

Figure 2.4: PAC Donations - 2000 General Campaign



normalized for each year and folded. Thus, higher values indicate more competition. Table 2.1 indicates that the largest value was $-.004$. This value represents a vote share that was extremely close to 50 percent.

Table 2.1: Candidate Variable Descriptions

Variable	Standard		Minimum	Maximum
	Mean	Deviation		
Party ID	$-.004$	$.993$	-1	1
Incumbent	$.486$	$.500$	0	1
Committee Chair	$.075$	$.264$	0	1
Open Seat	$.224$	$.417$	0	1
Primary Election Competition	$.660$	$.474$	0	1
General Election Competition	-1.02	$.666$	-3.99	$-.004$

Candidate Ideology Results

Table 2.2 displays point estimates and credible intervals associated with the Senate candidate characteristics. The top half of the table has the estimates from the primary campaigns, and the bottom half of the table includes the estimates from the general election campaigns. The coding of *Party ID* means that a positive coefficient indicates that PACs were more likely to donate money to Republican candidates. During primary campaigns PACs were always more likely to donate to Democratic candidates than to Republican candidates. However during general election campaigns it was mixed. In 2002 PACs were more likely to donate to Democrats, but in 2004 they were more likely to donate to Republicans.

In both primary and general election campaigns PACs are more likely to donate money to Incumbents. However, this effect is especially strong during primary campaigns. However in one instance, the 2004 general election campaign, incumbency decreased the likelihood that a PAC would donate to the candidate. The estimated effects of occupying a committee chair were also strange. According to table 2.2 committee chairmanship decreases the probability that a PAC will donate to candidate during both primary and general election campaigns.

The effects of competition and open seat status both performed as expected. Running in a competitive race increased a candidate's probability of receiving a PAC donation. This was true during both general and primary campaigns. Running for an open seat also increased a candidate's chance of receiving a PAC donation. The effect of running for an open seat was especially clear during the general election campaigns.

Table 2.2: Parameter Estimates from Candidate Characteristics

Variable	Primary Campaigns				
	Point Estimates and Standard Errors				
	2000	2002	2004	2006	2008
Party ID	-0.143 (0.14)	-0.266* (0.06)	-0.419* (0.07)	-0.368* (0.09)	-0.163 (0.09)
Incumbent	1.063* (0.13)	0.894* (0.11)	0.775* (0.12)	0.778* (0.12)	1.458* (0.13)
Committee Chair	-0.577 (0.30)	-0.533* (0.26)	-0.567* (0.16)	-0.835* (0.20)	-0.892* (0.24)
Competition	-0.215 (0.17)	0.639* (0.14)	0.167 (0.12)	0.466* (0.13)	0.670* (0.13)
Open Seat	0.347 (0.23)	0.438* (0.20)	-0.193 (0.15)	0.236 (0.24)	1.713* (0.24)
	General Campaigns				
	2000	2002	2004	2006	2008
Party ID	0.083 (0.08)	-0.239* (0.04)	0.193* (0.05)	-0.042 (0.07)	-0.030 (0.06)
Incumbent	0.290 (0.22)	0.438* (0.06)	-0.170* (0.08)	0.356* (0.11)	0.157 (0.09)
Committee Chair	-0.577* (0.26)	-0.513* (0.13)	-0.510* (0.16)	-0.255 (0.21)	-0.763* (0.16)
Competition	0.161 (0.13)	0.332* (0.04)	0.593* (0.08)	0.272* (0.11)	0.064 (0.07)
Open Seat	0.977* (0.22)	1.350* (0.11)	1.837* (0.17)	0.856* (0.20)	0.721* (0.12)

Significance Levels: * $p \leq .05$, two-tailed tests.

Candidate Estimates

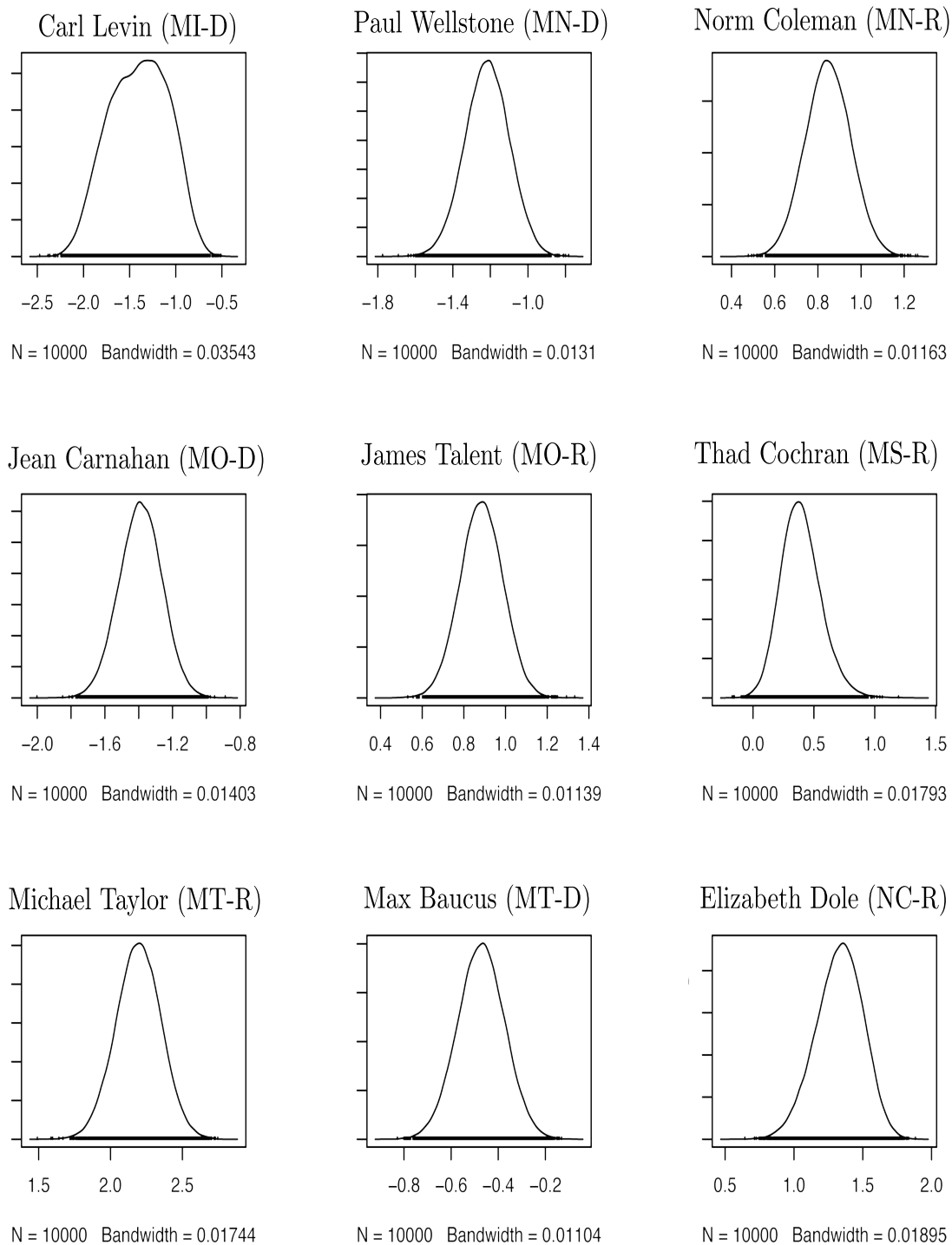
In a perfect world I would show the posterior densities of all the candidate ideologies, but this would add too many pages. I contemplated showing up to nine candidate densities on each page. However, even by showing this many densities on each page, I would have added more than 70 additional pages. Therefore, I have chosen to use the mean value of each candidate's ideology to summarize the results of the estimation.⁵ That being said, to illustrate the idea I did include figure 2.5 which illustrates the densities of nine candidate ideologies for the 2002 general election campaign.

The candidates in figure 2.5 include four Democrats, all four were incumbents. There are five Republicans included in the figure, four of which were challengers and one was an incumbent. In all of the states represented in the figure an incumbent was running for reelection, with the exception of North Carolina, which was an open seat. The x-axes are the ideology estimates. Positive numbers represent a conservative ideology, and negative numbers represent a liberal ideology.

In general, the densities in figure 2.5 seem to agree with what we know about political parties and ideology. The Republican candidates all have positive estimates, indicating a conservative ideology; while the Democratic candidates all have negative estimates, indicating a liberal ideology. When we look closer at the individuals and their specific ideological inclinations, we also see that the estimates are quite reasonable. Before his untimely death, the Democratic Senator Paul Wellstone from Minnesota was considered a strong progressive liberal. On the other hand, Senator Max Baucus from Montana, also a Democrat, is considered to be much more moderate. Wellstone's density lies primarily between -1 and -1.4, whereas Baucus' density is between -0.3 and -0.7. This indicates that Wellstone is "more" liberal, or further to the left than Baucus. Moreover, it also means that there are policy outcomes that

⁵See Jackman (2009) pages 23-24 for a justification of using point estimates to summarize the results of a bayesian posterior density.

Figure 2.5: General Election 2002 Candidate Estimates

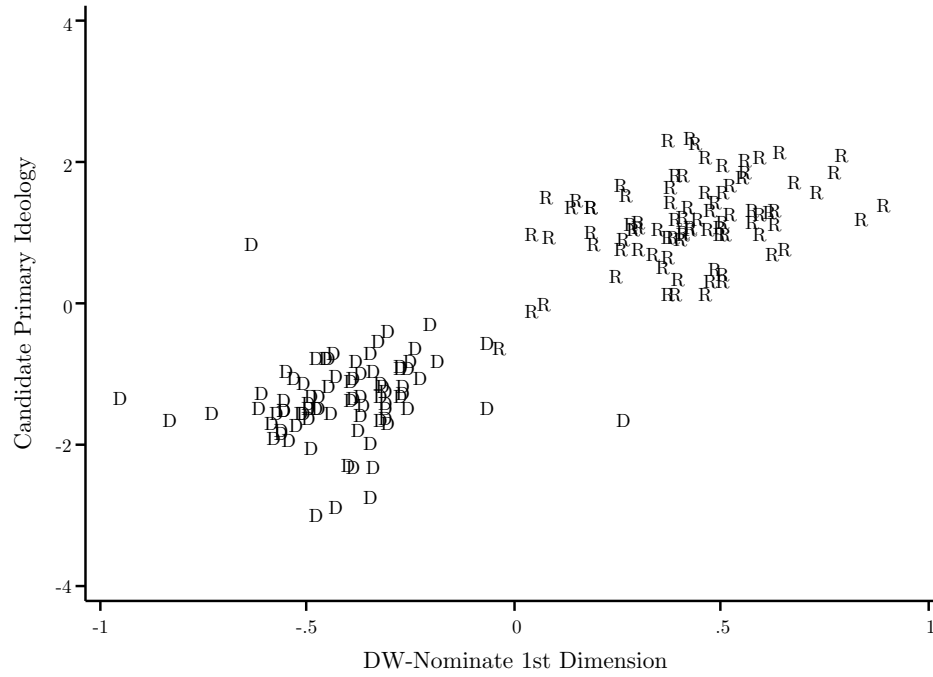


Wellstone would like, but that Baucus would find too liberal. We can tell a similar story when we look at the Republican candidates Norm Coleman from Minnesota and Elizabeth Dole from North Carolina. Coleman's density is between 0.6 and 1, but Dole's is between 1 and 1.6. Although Elizabeth Dole was not the most conservative member of the Republican party, she was certainly more conservative than Norm Coleman, who was a fairly moderate Republican.

Rather than showing 70 pages of these densities and drawing hundreds of comparisons, from this point forward I will use the mean value of each candidate's density and simply refer to this summary measure as the candidate's ideology. Figure 2.6 illustrates the relationship between this summary measure of candidate primary ideology and a roll-call based measure of legislator ideology, namely 1st dimension DW-Nominate scores. Candidate primary ideology is plotted on the vertical axis and DW-Nominate scores are on the horizontal axis. The 'D's and 'R's represent Democrats and Republicans, respectively. Since DW-Nominate scores are based on roll-call votes, they can only be estimated for Legislators. This means that candidates who have never served in Congress are not included in the figure.

Figure 2.6 indicates that there is a very strong relationship between candidate primary ideology and 1st dimension DW-Nominate scores (the two measures correlate at .881). The correlation between DW-Nominate scores and candidate general ideology is an even higher (.898). Table 2.3 displays how well the candidate primary and general ideology point estimates fit with DW-Nominate and party identification. Both of the measures of ideology are highly correlated with their DW-Nominate scores and with their party identification. Candidate primary ideology is correlated with party identification at .907, and general ideology is correlated at .893. Furthermore, the candidates' primary ideologies are also highly correlated with their general ideologies (.873).

Figure 2.6: Relationship Between Primary Ideology and DW-Nominate



Note: This only includes Senate candidates who had DW-Nominate scores.

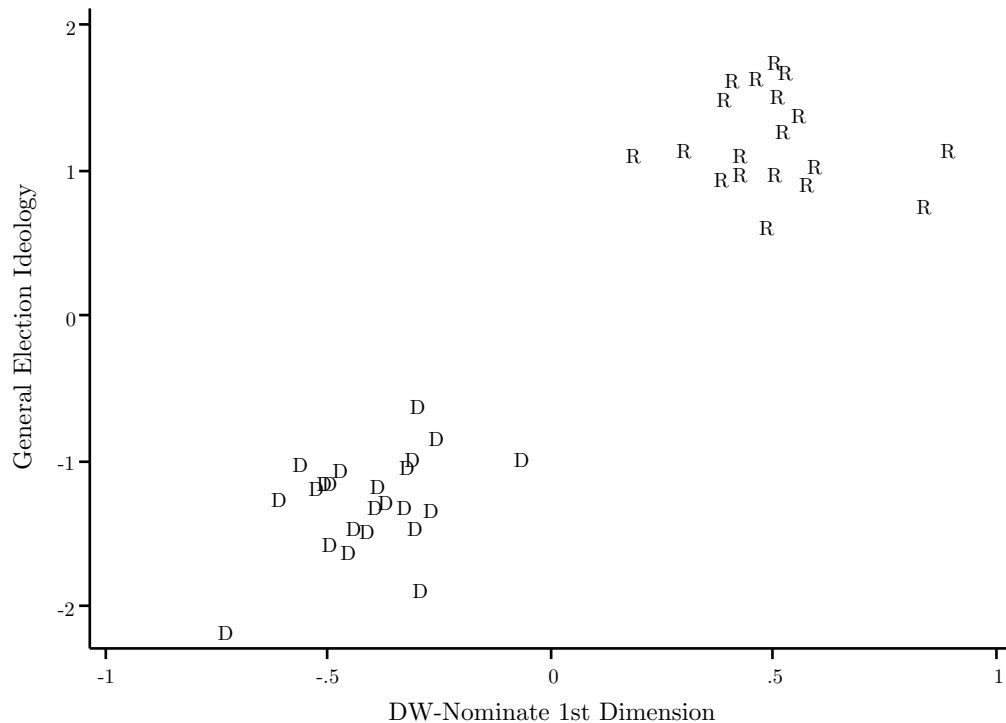
Table 2.3: Primary and General Ideology Correlations

	Party ID	DWNOM1	Primary Ideology
DWNOM1	.920	—	—
Primary Ideology	.907	.881	—
General Ideology	.893	.898	.873

Note: This only includes Senate candidates who had DW-Nominate scores.

Another way to analyze how well these measures capture ideology is by looking at non-incumbent candidates who won the general election and subsequently received ideology scores based on their roll call votes. Over the course of the five election cycles covered from 2000 to 2008 there were only 23 Democratic and 19 Republican Senate candidates who fit this criteria. That being said, the results are displayed in figure 2.7. The figure shows that the PAC-based ideology measures and the subsequent DW-Nominate scores of non-incumbent candidates who were ultimately elected are correlated at about .93. This means that with my PAC-based ideology measures—estimated prior to a candidate ever taking office—I can predict, with a large amount of accuracy, how candidates will vote after they take office.

Figure 2.7: General Ideology and DW-Nominate



Note: This only includes non-incumbent Senate candidates who won the general election.

Table 2.4 illustrates the correlations between candidate party identification, 1st

dimension DW-Nominate scores, and the PAC-based primary and general ideology measures. The PAC-based ideology measures correlate very well with both candidate party identification and DW-Nominate scores. The PAC-based primary ideology measure correlates .951 with party identification and .913 with 1st dimension DW-Nominate scores. The PAC-based general ideology measure correlates .967 with party identification and .930 with DW-Nominate scores.

Table 2.4: Non-incumbent Winners

	Party ID	DWNOM1	Primary Ideology
DWNOM1	.950	—	—
Primary Ideology	.951	.913	—
General Ideology	.967	.930	.938

Note: This only includes non-incumbent Senate candidates who subsequently won the election.

These results further confirm that the PAC-based ideology measures do a very good job of predicting how a candidate will vote if he or she were to win the election. This also indicates that PACs do have a handle on candidate ideology and that PAC donations are linked to ideological proximity. With accurate measures of Senate candidates' primary and general ideologies in hand, the next chapter is devoted to estimating the states' primary and general ideologies.

Chapter 3

State Ideology and Candidate Location Choice

There is a great deal of heterogeneity among the fifty states that encompass the United States. This is true in relation to geography and demography. According to the Census Bureau, California, the most populated state, has more than 37 million people living there. This is approximately 12 percent of the total U.S. population. On the other hand, only one-half of a million people live in Wyoming, the least populated state. This is less than two-tenths of a percent of the total U.S. population. California has 237 people per square mile, which is far less than New Jersey's 1,200 people per square mile. Wyoming has 5.6 people per square mile, which is nearly 5 times higher than Alaska's 1.2 people per square mile.

If we look at differences in the racial makeup of states we would also find a wide variety of differences. Sixty-one percent of California's large population is white. But this is much lower than Vermont's 96 percent white population. The state with the lowest percentage of whites is Hawaii at 27 percent. The south still has the largest concentrations of African Americans. African Americans make up 26 percent of Alabama's population, 30 percent of Georgia's population, and 37 percent of Mis-

Mississippi's population. Maryland is one of the only places outside of the south that even comes close to having the same proportion of African Americans with about 29 percent of the state's total population. The proportion of African Americans is extremely small in some of the North-east states and the North-west states. African Americans makeup about 1 percent of the populations of Maine, Vermont, and New Hampshire. In Idaho, Montana, Wyoming, Utah, North Dakota, and South Dakota African Americans constitute less than 1 percent of the states' populations.

As different as the states are among each other, there is also a lot of heterogeneity within the states themselves. In Wisconsin, Milwaukee County has a total population of about 1 million people, and 25 percent of that population are African Americans. But in Waukesha County (the counties are adjacent to each other) the total population is about 380,000 people and only 1.4 percent are African Americans. Prince George's County in Maryland has 840,000 people residing there, 64 percent of which are African Americans. The city of Baltimore also has a large proportion of African Americans, 63.5 percent of the 640,000 total population. Howard County and Anne Arundel County lie between Prince George's County and Baltimore. Howard County's total population is 275,000 people and 17 percent of them are African American. Anne Arundel County has a larger population, 514,000 people, with a smaller percentage of them being African American, less than 15 percent. I could obviously go on and on. The point is that there are many differences within and among the states. The difference between the primary voters and general election voters in each state, is particularly relevant.

Different Electorates

Senate candidates must win their party's primary election before they can carry the party's label into the general election. States have a variety of laws governing

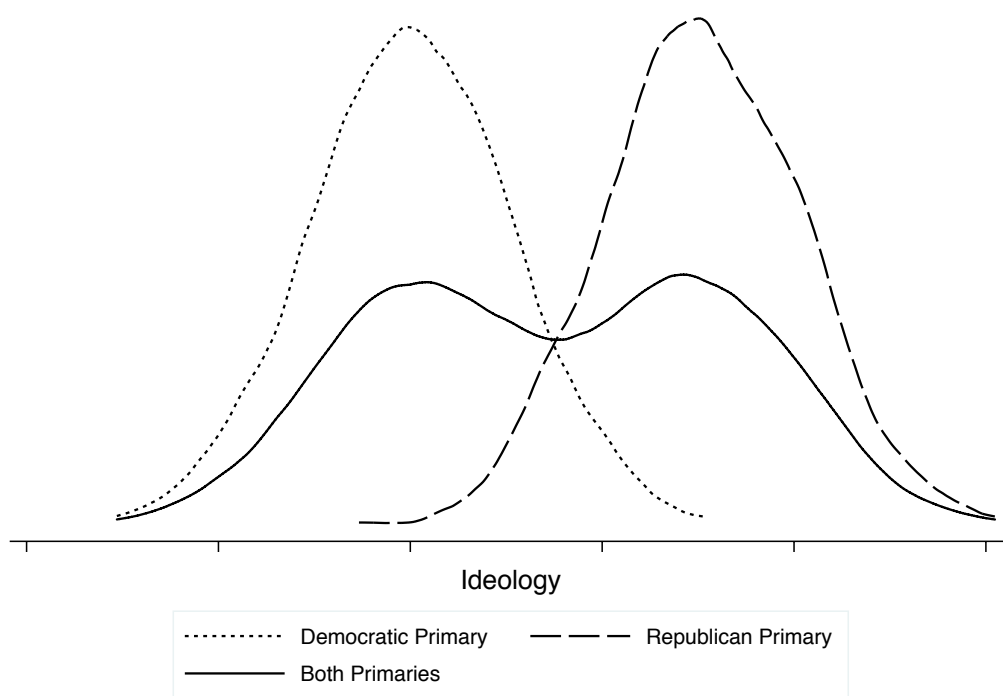
primary elections. In some states, individuals must register as a party member before they are allowed to vote in that particular party's primary election. In other states, individuals can vote in either parties' primary election regardless of their partisan affiliation. Either way, if an individual votes in one party's primary election, that individual cannot then vote in the other party's primary election.

Often primary voters are seen as being more engaged and more ideological than the average general election voter. Scholars have debated whether or not primary voters are representative of the rest of the population and those who have studied the representativeness of primary electorates have had conflicting results. Initially, studies found that primary electorates were unrepresentative (Ranney, 1968, 1972). However, later studies challenged this conclusion (Bartels, 1988; Geer, 1988; Norrander, 1989). Geer (1988) argued that the comparison groups used by earlier studies were problematic. According to Geer (1988) past studies had compared primary voters to those who did not vote in the primary (Ranney and Epstein, 1966; Ranney, 1968, 1972), to party identifiers (Kritzer, 1977), and to voters in the general election (DiNitto and Smithers, 1972). Geer argued that these comparisons were potentially misleading because they could have included individuals who did not vote for the party in the general election. He claimed that a better comparison would be primary voters to individuals who are likely to turnout in the general election and are potential supporters of the party in that election (Geer, 1988, page 931). From this comparison, he found that there was little difference between primary voters and the general electorate.

However, even if the exact same individuals who voted in the primary elections vote in the general election, and only those same individuals, the candidates still face a dramatically different general electorate from the primary electorate. An example of this is illustrated in figure 3.1.

There are 3 densities included in figure 3.1. The Democratic Primary Electorate,

Figure 3.1: Different Electorates



the Republican Primary Electorate, and the General Election Electorate. The General Election Electorate was obtained by combining the Democratic and Republican Primary Electorates. Even in this case, where no additional non-primary voters were included in the General Electorate, there are clear differences among all three of the electorates. Although the distributions will not be identical, there still should be a difference between these different electorates in each state. Moreover, a candidate will need to please two of the electorates, his or her party's primary electorate and the general electorate, before he or she can win the Senate seat.

If a candidate wants to get elected, she will have to convince the voters that electing her will benefit them more than electing her opponent. Arguably, candidates attempt to convince the voters by placing themselves in the ideological dimension by alluding to their stances on various policies.¹ Voters then base their vote choice on the ideological congruency between the candidates and themselves. The candidate whose ideology is closest to the median voter's ideology will win the election. This summarizes a simple spatial model of vote choice. For the purposes of this study, this means I will need to obtain measures for both primary electorates' ideologies and the general electorate's ideology in each state.

Estimating State Ideologies

To understand if and how candidate primary positions affect their vote share in the general election, I need to estimate three ideology measures for each state. One ideology measure for the general electorate, another for the Democratic primary electorate, and another for the Republican primary electorate. Researchers have used several methods to obtain state-wide measures of attitudes based on survey responses. The earliest attempts used national data to estimate demographic correlations and then

¹It could also be the case that candidates specifically avoid making policy statements so they will not have to defend them. However, eventually most candidates are forced to make some ideologically defining policy statements.

weighted the estimates based on state demographic totals (Pool, Abelson and Popkin, 1965). However, researchers were concerned that this did not take geography into account. States with similar demographic characteristics would end up having the same estimates. This led to a disaggregation method by Erikson, Wright and McIver (1993) in which geography was taken into account. However, in order to obtain sufficiently large sample sizes, the disaggregation method often had to pool data across large periods of time. For many questions in political science this is not a reasonable solution. Recently, Lax and Phillips (2009) compared the disaggregation method to another using multilevel modeling and found that the estimates obtained from the multilevel models were superior. They found that multilevel modeling outperformed disaggregation especially well when sample sizes were small. To obtain estimates of state ideology, I used the recent multilevel modeling approach forwarded by Lax and Phillips (2009).

Equation 3.1 illustrates the individual model used to estimate state ideology. Parameters labeled with β 's represent fixed effects and α 's represent random effects. Fixed effects do not vary across states and include measures of state institutional ideologies, citizen ideologies, vote share of Democratic Presidential Candidate, and Gross Domestic Product (GDP).

$$\begin{aligned} \text{Ideology}_i = & \beta_0 + \beta_1^{\text{instit ideol}} + \beta_2^{\text{civ ideol}} + \beta_3^{\text{Dem Pct}} + \beta_4^{\text{gdp}} \\ & + \alpha_{g[i]}^{\text{race, sex}} + \alpha_{a[i]}^{\text{age, edu}} + \alpha_{j[i]}^{\text{job}} + \alpha_{m[i]}^{\text{married}} + \alpha_{k[i]}^{\text{kids}} + \alpha_{s[i]}^{\text{state}} + \alpha_{r[i]}^{\text{region}} \end{aligned} \quad (3.1)$$

$$\begin{aligned}
\alpha_g^{race, sex} &\sim N(0, \sigma_{race, sex}^2), \text{ for } g = 1, \dots, 8 \\
\alpha_a^{age, edu} &\sim N(0, \sigma_{age, edu}^2), \text{ for } a = 1, \dots, 16 \\
\alpha_j^{job} &\sim N(0, \sigma_{job}^2), \text{ for } j = 1, \dots, 4 \\
\alpha_m^{married} &\sim N(0, \sigma_{married}^2), \text{ for } m = 1, \dots, 4 \\
\alpha_k^{kids} &\sim N(0, \sigma_{kids}^2), \text{ for } k = 1, \dots, 3 \\
\alpha_s^{state} &\sim N(0, \sigma_{state}^2), \text{ for } s = 1, \dots, 50 \\
\alpha_r^{region} &\sim N(0, \sigma_{region}^2), \text{ for } r = 1, \dots, 9
\end{aligned} \tag{3.2}$$

On the other hand random effects do vary by state. Thus measures must be available at both the individual and state levels. These include variables measuring race, sex, age, education, employment status, marital status, number of children, state, and region. Each random effect is modeled with a mean of 0 and a variance of σ^2 . Equation 3.2 displays the distributional assumptions of the random effects.

The data used to estimate the state ideologies came from a number of places. The Annenberg National Election Studies (NAES) were used to estimate individual level ideology responses. I used the NAES because they have a large sample of primary voters across nearly all states which allowed me to obtain ideology measures of those electorates. I used census data for weighting and post-stratification of the individual level ideology responses. Thus, any random effect in the model must be contained in both the NAES and the Census data. Data on state Gross Domestic Product (GDP) came from the Bureau of Economic Analysis which is part of the U.S. Department of Commerce.² Vote share for Al Gore in 2000 and John Kerry in 2004 came from the

²The GDP data was downloaded from <http://www.bea.gov/index.htm>

Federal Elections Commission (FEC).³ Institutional ideology and state citizen ideology are updated measures associated with Berry et al. (1998).⁴ State institutional ideologies were estimated by combining the ideology scores of each state's governor, state legislature, and the parties within the state legislature (Berry et al., 1998, page 332-333). States' citizen ideologies were formulated by using the ADA and COPE scores of House incumbents and challengers, weighted by the amount of support they received during the election, and then aggregating all the state's congressional districts (Berry et al., 1998, page 331).

Results

Table 3.1 displays the estimates for the fixed effects and table 3.2 displays the estimated means and variances for the random effects. Looking first at table 3.1, the estimated fixed effects from six models are included. The 2000 Democratic Primary Electorate's ideology, the 2000 Republican Primary Electorate's ideology, the 2000 general election electorate's ideology, and the same three ideology estimates for 2004. Because I used the NAES, the dependent variables are measures of ideology scaled from 1 being the most liberal to 5 being the most conservative.

The citizen and institutional ideology variables are measured such that 0 is the most conservative possible and 100 is the most liberal possible. Since the dependent variables are scaled from 1 to 5 in the opposite direction, we should expect that the citizen and institutional ideology variables would have a negative effect. This is precisely what we see with the citizen ideology variable. Liberal citizens are associated with liberal general election voters, and relatively liberal Republican primary electorates. However, the effects of citizen ideology were not significant in either of the

³Vote share data came from <http://www.fec.gov/>

⁴The data was downloaded from Richard Fording's website:
<http://www.uky.edu/~rford/stateideology.html>

Table 3.1: 2000 & 2004 State Ideology - Fixed Effects

Fixed Effects	2000			2004		
	Dem	General	Repub	Dem	General	Repub
Citizen Ideology	-0.001	-0.002*	-0.005*	-0.002	-0.003*	-0.005*
Institutional Ideology	0.001	0.0007*	0.001*	0.001*	0.0002	-0.0002
Gore/Kerry Vote %	-0.586*	-0.820*	-0.043	-0.593	-0.735*	0.610
Per Capita GDP	-0.000	-0.000	-0.000	-0.0001*	-0.00001*	-0.00001*
Constant	3.396*	3.629*	3.646*	3.541*	3.881*	3.879*

Significance Levels: $*p \leq .05$, two-tailed test.

Democratic models.

The institutional ideology variable did not have the effect I expected. It should have performed similarly to the citizen ideology variable, but it did not. Further analysis revealed that the two variables have a fairly strong correlation (.585). It could be that removing citizen ideology would change the estimated effect of institutional ideology, or that removing institutional ideology would temper the effect of citizen ideology. However, I would point out that the substantive affect of institutional ideology is much smaller than that of citizen ideology. So taken together, the overall affect is still in the direction that we expected.

The variable labeled “Gore/Kerry Vote %” performed as expected. The effect indicates that Democratic Primary electorates and General election electorates in 2000 that voted heavily for Gore were more liberal than those that did not favor Gore as much. The effect of Kerry votes indicated that the General electorates in states that supported Kerry in 2004 were much more liberal than the General Electorates in states that supported him less. The variable measuring per capita GDP is not significant in any of the 2000 models, but is significant and negative in all of the 2004 models. This effect indicates that states with higher per capita GDP were more likely to be liberal than states with lower per capita GDP.

The random effects are displayed in table 3.2. The layout of the table is slightly different from that of table 3.1. Table 3.2 includes the mean and variance of the models' random effects. The top half of the table includes the effects for the three models estimated for the year 2000, and the bottom half has the effects for the 2004 models. Since there are multiple categories for each variable (e.g. the "State" variable has 50 categories) and separate effects are estimated for each category, displaying all of the estimated effects for each variable would be needlessly extensive. For this reason, I included the mean and variance of the effects for each variable in table 3.2.

Nearly all of the mean random effects are displayed in scientific notation. Converting these into standard numbers simply entails moving the decimal point the number of spaces indicated by the exponent. For example, the mean random effect for the "Race, Sex" variable in the 2000 Democrat model is $4.9e^{-13}$. The standard number would be 0.000000000000049. So for all intents and purposes, all of the mean random effects in table 3.2 are zero. Looking at the variances tells us that the effects are different across the variables' categories.

The "Race, Sex" variable in the 2004 General model has a mean of $-3.7e^{-12}$ and a variance of .009. If we looked closer at this specific variable, we would see that the largest positive effect, indicating a conservative direction, was associated with white males at 0.17. The largest negative effect, which indicates a liberal direction, was -.11 and associated with black males.

Many of the other variables also performed as expected. Looking at the "Job" variable in the 2004 General model, the strongest conservative effect was estimated for individuals who were self-employed ($\alpha=0.030$). And the strongest liberal effect was estimated for government workers ($\alpha=-0.033$). The most conservative effect for the "Region" variable was 0.085 estimated for a region in the south. Whereas the most liberal effect was estimated for New England and was -0.071.

Figures 3.2 and 3.3 illustrate each state's general electorate ideology, Democratic

Table 3.2: 2000 & 2004 State Ideology - Random Effects

2000 Random Effects	Democrat		General		Republican	
	Mean	σ^2	Mean	σ^2	Mean	σ^2
Race, Sex	$4.9e-13$	0.004	$2.5e-11$	0.010	$-2.0e-12$	0.009
Age, Edu	$-9.2e-14$	0.041	$6.2e-13$	0.011	$-1.3e-13$	0.004
Job	$6.5e-13$	0.003	$-2.8e-12$	0.001	$-1.3e-12$	0.004
Married	$5.2e-13$	0.004	$7.2e-12$	0.009	$2.8e-12$	0.004
Kids	$-2.0e-12$	0.004	$2.4e-11$	0.012	$-4.0e-13$	0.006
State	$1.9e-15$	0.001	$7.1e-15$	0.001	0	$2.9e-11$
Region	$-1.0e-12$	0.010	$2.5e-12$	0.003	$2.2e-13$	0.004
2004	Democrat		General		Republican	
	Mean	σ^2	Mean	σ^2	Mean	σ^2
Race, Sex	$2.4e-12$	0.008	$-3.7e-12$	0.009	$-5.9e-14$	0.008
Age, Edu	$-1.3e-13$	0.063	$-1.1e-12$	0.022	$-1.0e-15$	0.005
Job	$8.4e-15$	$1.0e-4$	$-4.3e-13$	0.001	$9.2e-13$	0.002
Married	$1.9e-14$	0.005	$7.3e-11$	0.013	$-1.5e-12$	0.004
Kids	$4.8e-12$	0.002	$-5.8e-11$	0.024	$1.3e-11$	0.017
State	$3.2e-14$	0.002	$-3.5e-14$	0.002	$3.1e-14$	0.003
Region	$1.5e-13$	0.005	$3.1e-13$	0.004	$-7.6e-14$	0.002

primary ideology, and Republican primary ideology. The states are ordered based on the general electorate's estimated ideology. From the most liberal—Massachusetts, to the most conservative—Oklahoma. A label that ends in a 'D' represents the estimate for the specific state's Democratic primary electorate ideology. Labels that end in an 'R' are for the Republican primary ideology. And the labels that contain only the state's two-letter abbreviation represent the general electorate ideology.

There are several things to notice about these figures. First off there is a lot of variation in the location and spread among state ideologies. In some states, the Democratic electorate is much closer to the general electorate than the Republican electorate. For example, the Democratic electorates in Massachusetts and Vermont are much closer to the general electorate than the Republican electorate. In other states, the opposite is true. In Wyoming and North Dakota, the Republican electorates are much closer to the general electorates than are the Democratic electorates. In some states, both the Democratic and Republican electorates are close to the general electorate (and fairly close to each other), such as West Virginia, Alabama, and Oklahoma. However in other states, such as Oregon, Washington, and Iowa, they are all very far apart.

Another thing to notice is that states tend to be on the conservative side of the ideological dimension. In fact, in 2000 only 3 states' general electorates were on the liberal side of the dimension (Massachusetts, Rhode Island, and Hawaii). In 2004 (figure 3.3) only Massachusetts and Vermont had general electorates that were left of the "Moderate" category. In many states, the Democratic electorate is actually more conservative than other states' general electorates. But the only Republican electorates that are more liberal than any states general electorates are Delaware in 2004, which is more liberal than Oklahoma's and Mississippi's general electorates, and New Jersey's 2004 Republican electorate, which is also more liberal than Oklahoma's

Figure 3.2: State General and Primary Electorate Ideologies - 2000

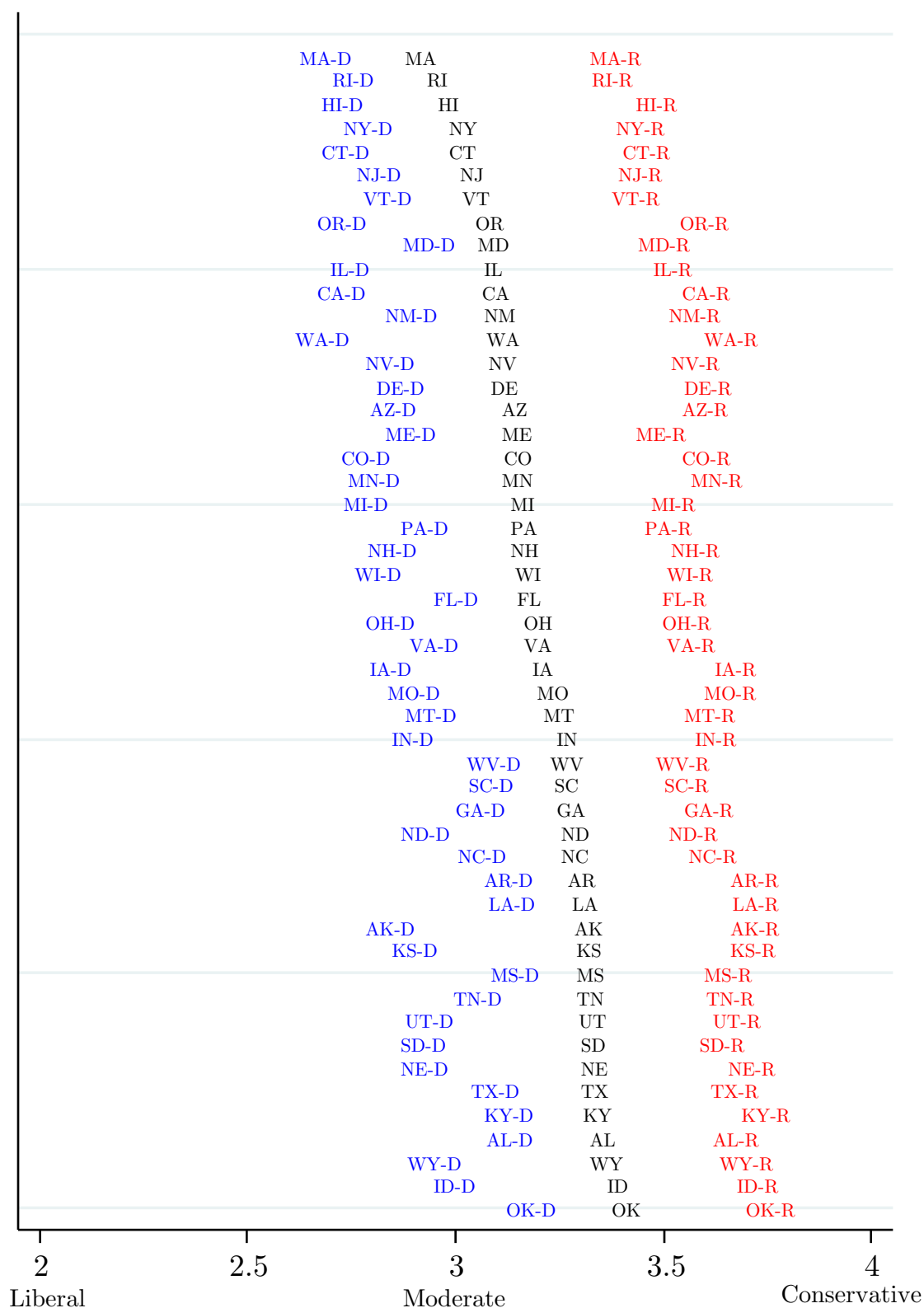
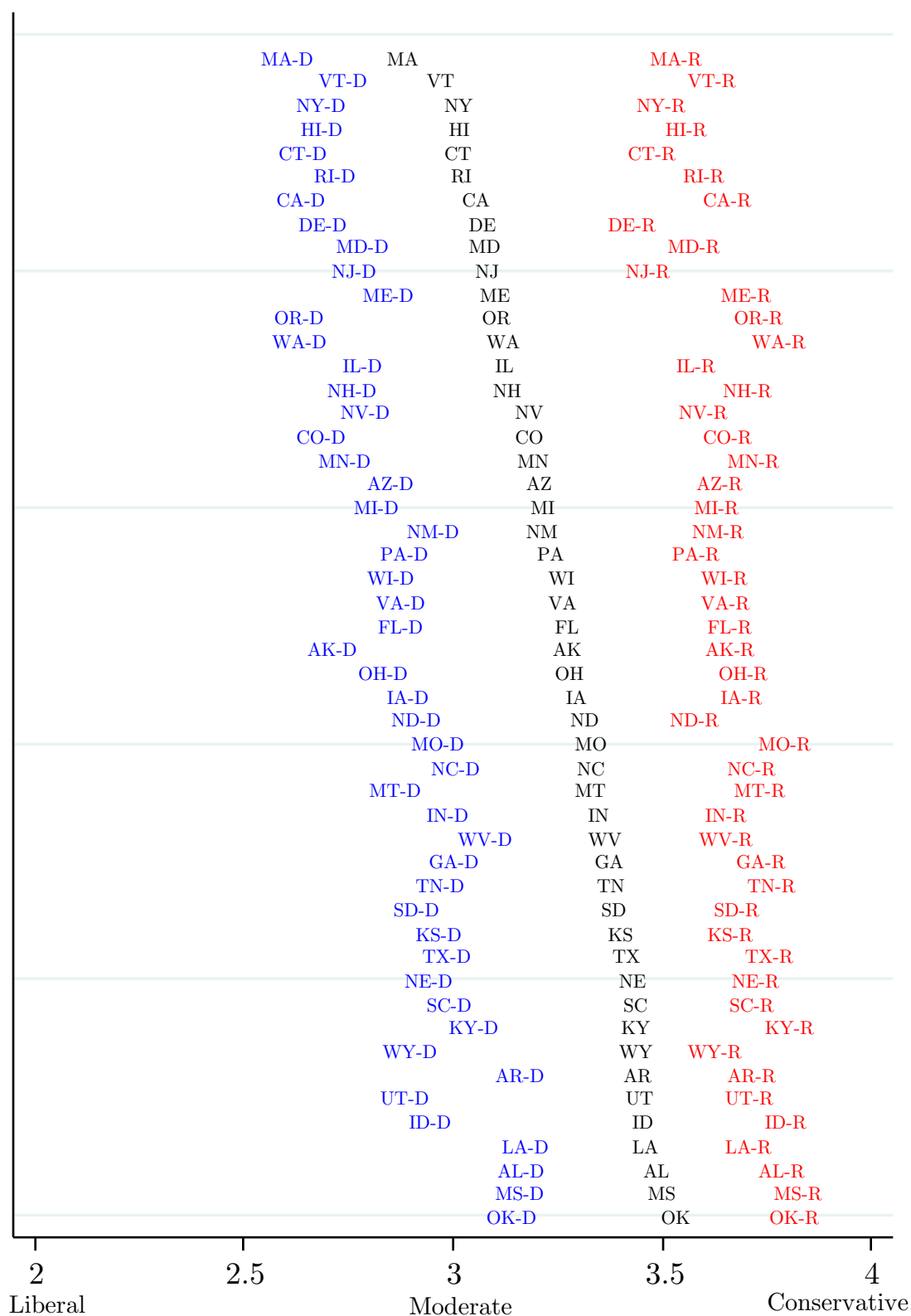


Figure 3.3: State General and Primary Electorate Ideologies - 2004



general electorate.

There also seems to be a semi-systemic shift towards the conservative side of the ideological spectrum between 2000 and 2004. In 2004 the average Republican primary electorate was 3.1 percent more conservative than they were in 2000. The average General election electorate was 3 percent more conservative in 2004 than they were in 2000. However, there was almost no difference between the average Democratic primary electorate in 2000 and 2004.

Finally, I wanted to point out that, generally speaking, these figures tend to coincide with what we know (or what I think we know) about the states' ideologies. Many of the states in the Northeast are very liberal. For example, if we look at rights for gays and lesbians, we would see that same-sex marriage is permitted in one form or another in Massachusetts, New Hampshire, and Vermont. Moreover, New York, Rhode Island, and Maryland all recognize same-sex marriages. And same-sex unions are permitted in New Jersey, Maine, and Maryland. The Northeastern U.S. is much more progressive when it comes to rights for gays and lesbians than most other regions. When we look at figures 3.2 and 3.3, we see that many of these Northeastern states have estimated ideologies that place them as the some of the most liberal states in the U.S.

In the same light, many states in the South and Northern-Midwest are considered to be some of the most conservative in the U.S. If we look at ADA scores, Southern Republicans and Southern Democrats consistently score lower (indicating a more conservative voting record) than the rest of their parties. Moreover, some of the most conservative Democrats come from states like New Mexico, Utah, and Idaho. For example, in 2009, Teague (D-NM) and Matheson (D-UT) both received ADA scores of 55. Marshall (D-GA), Minnick (D-ID), McIntyre (D-NC), and Davis (D-TN) all received ADA scores of 50. The most conservative Democrats in 2009 were Boren (D-OK) who got a 40, Taylor (D-MS) who scored a 35, and Bright (D-AL) who received a

20. The only Senator to get an ADA score of 0 in 2009 was the Kentucky Republican Bunning (R-KY).⁵ Figures 3.2 and 3.3 show that the model estimates coincide with the view that many Southern and Northern-Midwest states are in fact conservative.

I feel confident that this estimation process has led to reasonable and reliable estimates of state Democratic and Republican Primary ideology, and general electorate ideology. In the next section, I analyze the relationship between these state ideology estimates and the candidate ideology measures that were estimated in Chapter 2.

Candidate Ideology and State Electorates

Figure 3.4 illustrates the relationship between Senate Candidates' Primary ideologies and the States' Primary ideologies. Candidate primary ideology is plotted on the vertical axis, and state primary ideologies are plotted on the horizontal axis.⁶ Candidate primary ideology is clearly related to their parties' state primary electorate ideology. Candidates from states with conservative primary electorates tend to be more conservative than candidates from states with liberal primary electorates.

Since candidates need to win their party's primary election to carry the party label into the general election, it is not surprising that there is such a high correlation between candidate primary ideology and the relevant party state primary ideology. However, the relationship between candidate general ideology and state general ideology is not nearly as strong (illustrated in figure 3.5). Candidate primary ideology and state primary ideology is correlated at about .90, but candidate general ideology and state general ideology is only correlated at about .25.

⁵The ADA scores came from <http://www.adaction.org/media/votingrecords/2009.pdf>

⁶In the Chapter 4, I develop a spatial model between candidate ideology and state ideology. However, before I could construct the spatial model, I had to scale the measures so they would be compatible. Thus, the state primary and general ideologies plotted in the remaining figures and analysis are the scaled versions of these measures. I will discuss the scaling method in more detail in the next chapter.

Figure 3.4: Relationship Between Primary Ideology

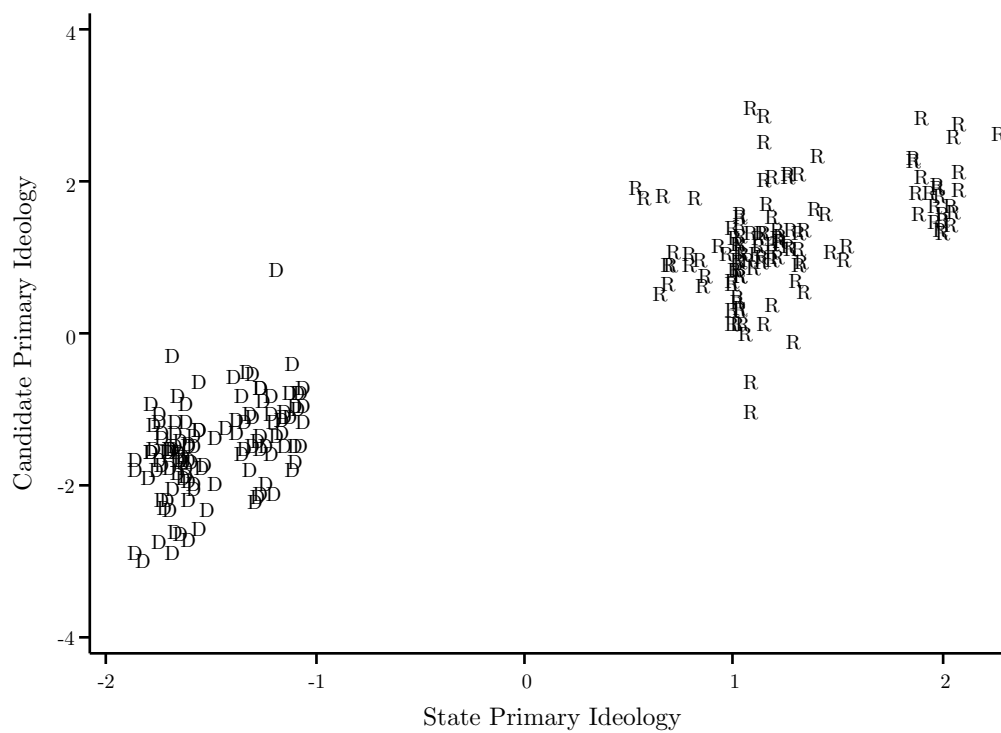


Figure 3.5: Relationship Between General Ideology

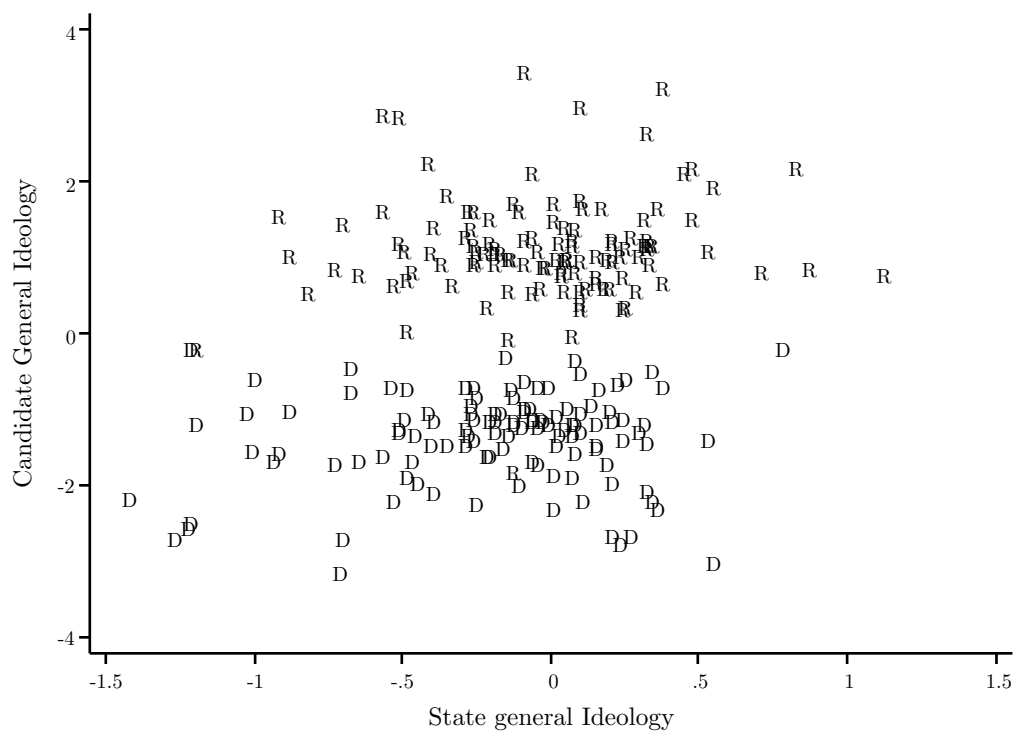


Table 3.3 reports the correlations between candidate ideologies and state ideologies, for candidates who ran in both the primary and general election campaigns. The table reveals that there is a stronger relationship between candidate general ideology and state primary ideology, than between candidate general ideology and state general ideology. Since candidate ideology location in the general election campaign is restricted by their ideology position in the primary, party identification, information quality, and uncertainty in the electorate, it is not surprising that there is a stronger relationship.

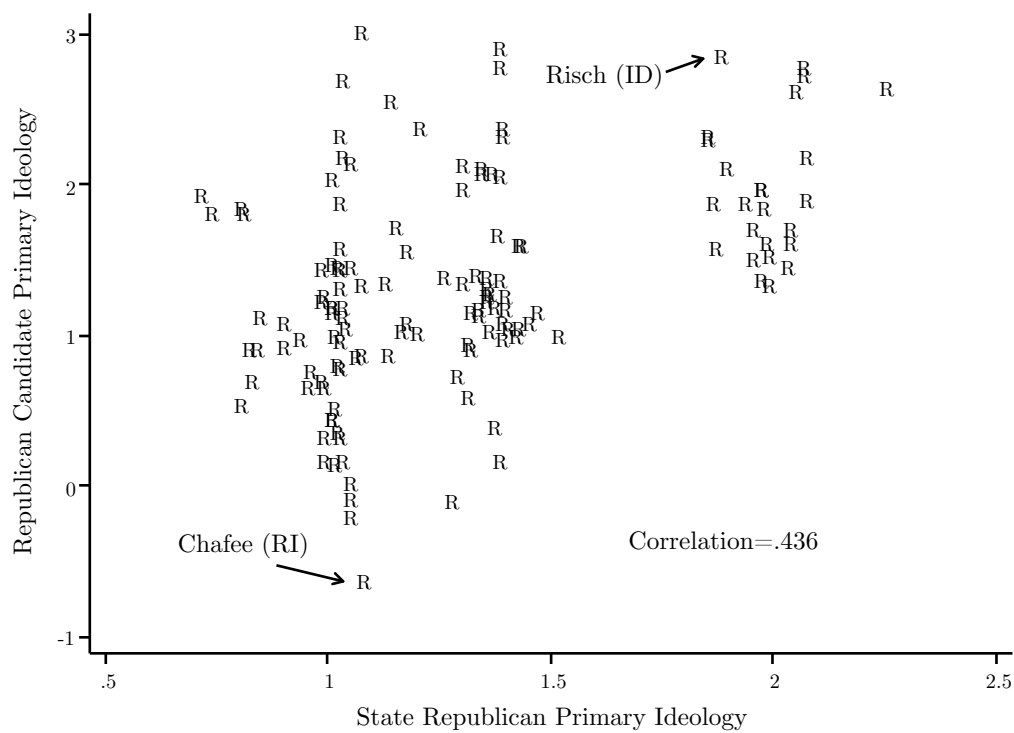
Table 3.3: Correlation Between Candidate & State Ideology

	State Primary Ideology	State General Ideology
Candidate Primary Ideology	.934	.233
Candidate General Ideology	.909	.269

Note: This only includes Senate candidates who ran in both the Primary and General Elections.

It could be the case that much of the relationship between state primary ideology and candidate primary ideology comes from the fact that Democratic Primary voters are more liberal than Republican Primary voters, regardless of the state. If electorate ideology affects candidate ideology location choice, then we should see this relationship even within the parties. For example, Oklahoma's Democratic Primary electorate is much more conservative than Massachusetts. Thus, I would expect that Oklahoma Democratic candidates would locate themselves to the right of Massachusetts' Democratic candidates. In the same regard, Oklahoma Republican Primary voters are more conservative than their Massachusetts brethren, and I would expect the Oklahoma Republican candidates to locate themselves to the right of the Massachusetts Republican candidates. That being said, figure 3.6 illustrates the relationship between state Republican primary electorate ideology and Republican candidate primary ideology.

Figure 3.6: Republican Primary Ideology

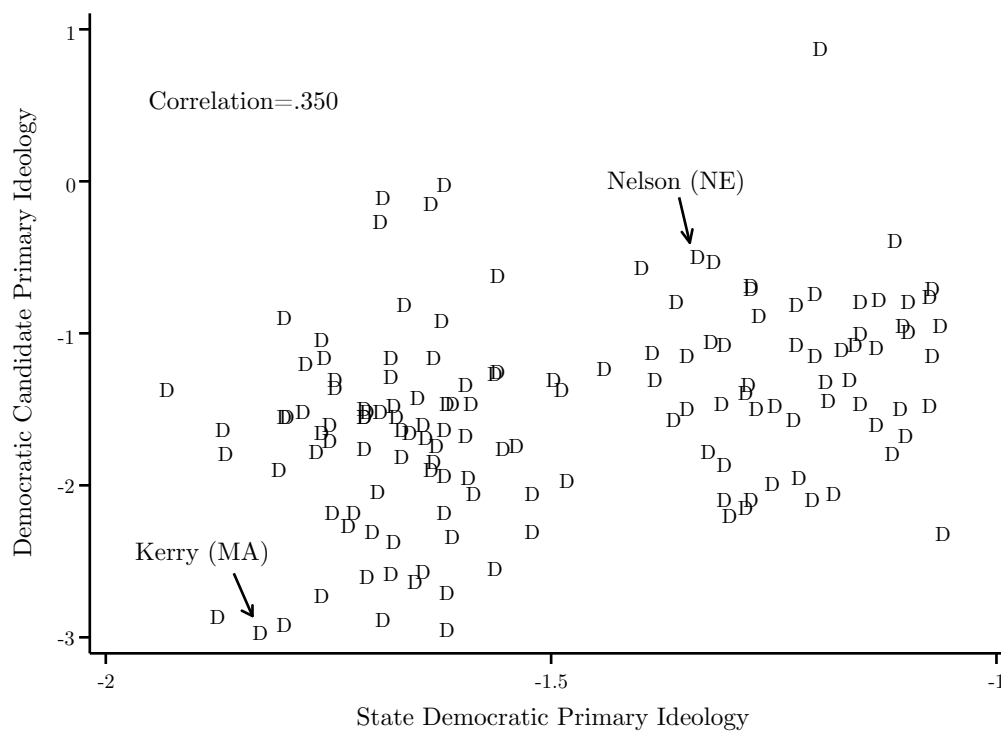


Although much of the strength of the correlation is reduced when we separate the parties (which was expected), there is still a strong relationship between Republican state Primary ideology and Republican candidate primary ideology. Figure 3.6 shows that the Primary ideologies of Republican voters and Republican candidates is correlated at .436. So even when we control for the effects of party, Republican candidates from relatively liberal Republican primary states are more liberal than candidates from states with relatively conservative Republican electorates. Senate Republicans Lincoln Chaffee from Rhode Island and James Risch from Idaho are labeled in figure 3.6 to provide reference. Lincoln Chaffee was one of the most liberal Republicans in the Senate, and Rhode Island is definitely one of the most liberal states. Moreover, Rhode Island's Republican Primary electorate is among the more liberal. On the other hand, James Risch is not the most conservative Republican in the Senate; however, he is still much more conservative than the Republican median Senator. Unsurprisingly, Risch's state of Idaho is among the more conservative states, and its Republican Primary electorate is more conservative than most.

Figure 3.7 illustrates the relationship between the ideology of states' Democratic Primary electorates and the ideology of Democratic Primary candidates. The correlation among Democratic Primary electorates and their candidates is not as strong as it was for Republicans. The correlation for Democrats is .350 and for Republicans it is .436. However, even after controlling for the effects of party, a fairly strong relationship still exists among the Democratic states and candidates. As I did in figure 3.6, I also labeled two Senators in figure 3.7 to serve as examples. Ben Nelson from Nebraska is one of the most conservative Democrats in the Senate, and he comes from one of the most conservative states. On the other hand, John Kerry, a Senator from Massachusetts, is more liberal and represents a liberal state.

As displayed in table 3.3, when the parties are combined the relationship between candidate primary ideology and their respective party's primary ideology was

Figure 3.7: Democratic Primary Ideology



extremely strong. However, when we controlled for party, the strength of the relationship was reduced. Table 3.3 also shows that candidate general ideology and state general electorate ideology is not very strong ($r=.269$). Although candidates from both parties are faced with the same General electorate, there is still a difference between the two parties. Table 3.4 shows the correlation between candidate and state general ideologies, while controlling for party.

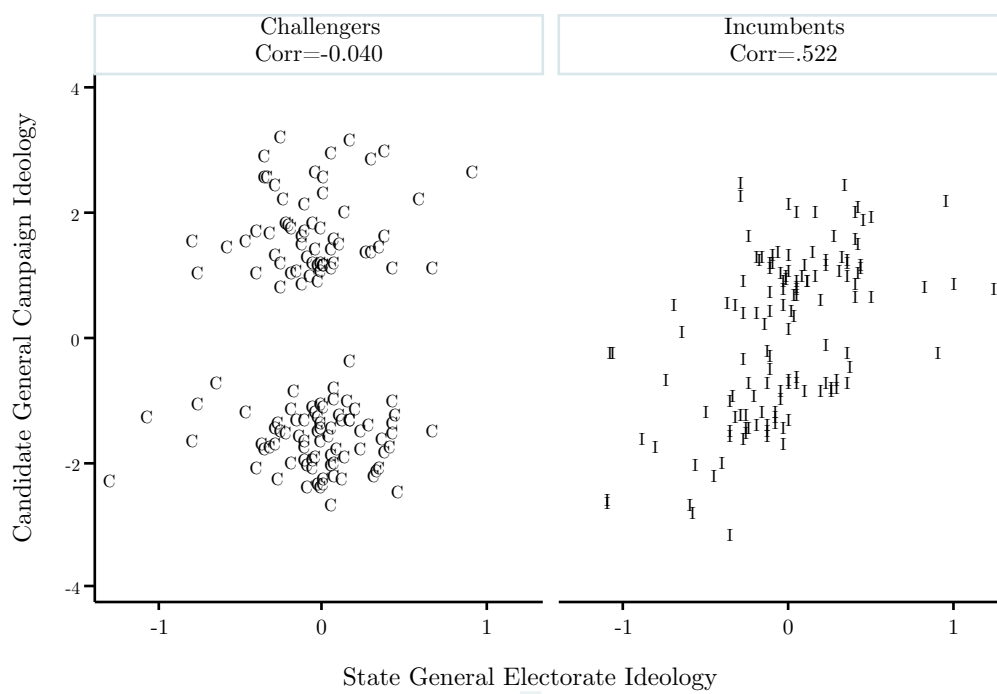
Table 3.4: Candidate & State General Ideology—Controlling for Party

	State General Ideology
Republican General Ideology	.156
Democratic General Ideology	.248

Note: This only includes Senate candidates who ran in both the Primary and General Elections.

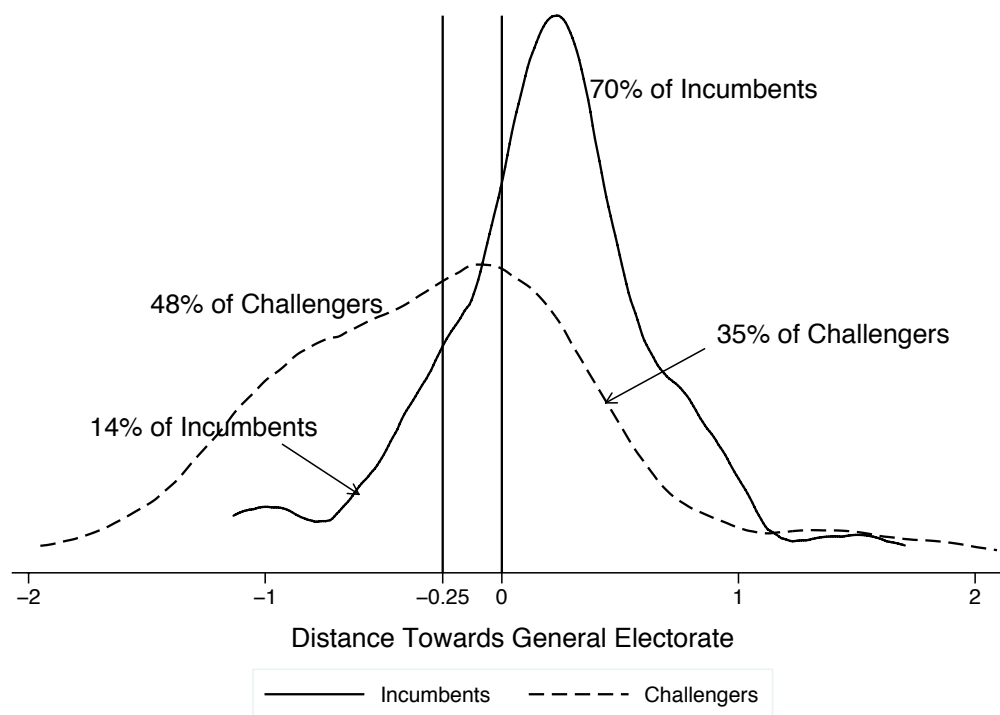
Table 3.4 shows that, overall, Democratic candidates are closer to their state general electorate than are Republican candidates. This is interesting because Republican candidates were closer to their party's primary electorate than the Democratic candidates were. However, since Democratic candidates are closer to the general electorate that begs the question: are Democratic candidate better at shifting towards the middle after the primary election is over? It may be tempting to answer "yes they are," but keep in mind that Democrats were further away from their relevant primary electorates than the Republicans. It could be the case that Democrats place themselves closer to the General electorate during the primary campaign, and that the same amount of movement between the Democratic candidate and the Republican candidate after the primary election places the Democrat closer to the General electorate since he or she started closer in the first place. Further analyses revealed that Democratic candidate primary ideologies were no more closely related to state general electorate ideology than Republicans ($r=.117$ for Democrats, and $r=.093$ for Republicans).

Figure 3.8: General Ideology - Incumbent and Challengers



There is no questioning the advantage that incumbents have during Congressional elections. Figure 3.8 shows the relationship between state and candidate general campaign ideology, while controlling for incumbency. The figure shows that incumbent Senate candidates are vastly closer to their states' general electorates than are challengers. This also raises the question: are incumbents better at shifting towards the middle than challengers, or is it that incumbents primary ideology places them closer to the general electorate than challengers? I try to answer this question in figure 3.9.

Figure 3.9: Primary Placement - Incumbent and Challengers



There are two densities displayed in figure 3.9, the solid line represents the incumbents and the dashed line represents challengers. There is only one axis—the horizontal axis—and it measures the distance from the candidates' primary positions to the relevant party's primary median voter. Positive values indicate candidates who placed themselves between the primary median voter and the general median

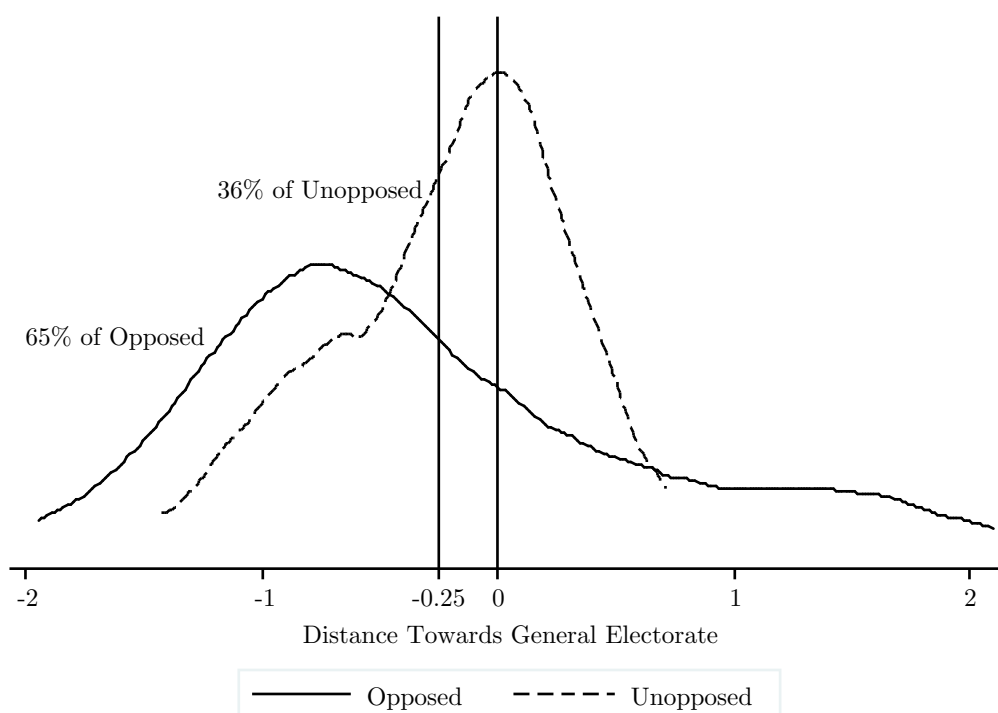
voter. A value of 0 means that the candidate primary ideology lined up precisely with his or her party's primary median voter. Negative values indicate candidates who placed themselves on the far-side of their parties' median voters. For Republican candidates a negative value would indicate that the candidate was more conservative than the median Republican primary voter. For Democratic candidates a negative value indicates a candidate whose primary ideology is more liberal than the median Democratic primary voter.

Figure 3.9 also includes two vertical lines (one on 0 and another on -0.25), and some text with arrows. Any candidate who falls to the right of the vertical line at the zero mark has a primary ideology that is more moderate than his or her party's median primary voter. Candidates that fall to the left of the zero mark have primary ideologies that are more extreme than their parties' median primary voters. The figure shows that 70 percent of Senate incumbents were more moderate than their party's primary median voter. However, only 35 percent of challengers were more moderate than their party's median voter. Aside from being more extreme, the shape of the challengers distribution is also skewed. To illustrate this difference in shape, I included a vertical line at the -0.25 mark. Only 14 percent of incumbents were this much more extreme than the primary median voter. However, a full 48 percent of challengers were this much more extreme than their primary median voter. Figure 3.9 indicates that incumbent primary ideology is closer to the general electorate than challenger primary ideology. This raises the question: why would challengers place themselves on the extreme-side of their party's median voter?

Not all challengers are created equal. Some challengers faced strong competition during their primary, while others were essentially unopposed. Figure 3.10 differentiates between challengers who were unopposed in their primary and challengers who faced opposition. Figure 3.10 indicates that challengers who run unopposed during the primary campaign, have primary ideologies closer to the general median voter,

than challengers who face competition in their primary. This makes sense when you consider that candidates who are faced with a tough primary campaign need to be especially concerned with pleasing their primary voters. On the other hand, candidates who are unopposed during the primary campaign can focus more on pleasing the general electorate—which is more moderate.

Figure 3.10: Primary Placement - Challengers Only



It could be the case that all candidates—even incumbents—who are faced with a strong primary competitor react by placing themselves closer to their party’s primary median voter. If this is true, then the reason incumbents appear so moderate compared to challengers could be attributed to the fact that they have less primary competition. For example, from 2000 through 2008, only about 50 percent of Senate incumbents had any primary competition. However, most of those Senators did not face strong competition. Less than 10 percent of incumbents who had primary

opposition received 60 percent or less of the primary vote. So, among all the Senate incumbents, only about 5 percent had any real primary competition.

Non-incumbents face a lot more primary competition. During the same time period (2000-2008), 82 percent of Senate challengers faced some form of primary competition. Moreover, nearly 60 percent of those challengers received 60 percent or less of the primary vote. Among all Senate challengers, about 49 percent face strong primary competition. This is much higher than the 5 percent of incumbents that face strong primary competition. This could certainly help explain why challengers are more extreme than incumbents.

Before moving on, I want to summarize what we have learned about candidate ideology placement. First, candidate primary ideology is closely related to his or her party's primary ideology. This makes sense since candidates must win the primary to carry the party label into the general election. Second, candidates do not align as close to the general median voter, as they do to the primary median voter. Third, incumbent primary ideology is closer to the general election median voter than challenger primary ideology. However, we also found that challengers who run unopposed during the primary campaign have a primary ideology closer to the general electorate's median voter than challengers who face competition during the primary. That being said, only about 5 percent of incumbents received strong primary opposition. Moreover, unopposed challengers and incumbents seem to behave similarly.

Chapter 4

Candidate Ideological Shifting

In 2010, Republican candidate and Tea Party favorite Sharron Angle lost her election bid to unseat Harry Reid, the long standing Democratic Senator from Nevada. During her primary campaign, Angle portrayed herself as a staunch conservative. She opposed mandating health care coverage for the treatment of autism. She argued that the U.S. Social Security system should be phased out in favor of a system that resembled the Chilean system created by the right-wing extremist and dictator, Augusto Pinochet. She even mentioned the possibility of an armed popular uprising if Congress did not change its course. Ultimately, it was this conservative message that led to the Republican nomination; however, to win the general election, Angle would need to moderate her message.

Although Angle's conservative message resonated well with many Republicans, the areas of Nevada that are heavily populated are not conservative strong holds. In 2008, Clark County and Washoe County, which together combined for approximately 86 percent of Nevada's vote total, both saw Obama with double digit victories over McCain. To win the general election, Angle would have to make a better showing in these important counties than McCain had done two years earlier and restrain her ardent conservatism. Just as Nixon had advised Bob Dole to "run like hell back to

the center,” Angle’s campaign recognized that she needed to tone down her vigorous conservative message to persuade enough general election voters to unseat the four term, Democratic incumbent.

To moderate her platform, Angle removed the website she used during the primary campaign and launched a new website that eliminated some of her more controversial statements. For example, she backed away from her view that the U.S. Department of Education was unconstitutional and should be dismantled. She also concealed her support for a facility to dump nuclear waste at Yucca Mountain. Evidence of her shift made national headlines when the Reid campaign called attention to it.

Sharron Angle’s (R) U.S. Senate campaign sent a cease and desist letter to Sen. Harry Reid’s campaign (D-NV) last week “after a copy of her pre-primary election website was relaunched,” the Nevada Appeal reports. “After winning the June 8 primary, Angle took down her website and relaunched a new, glossier and trimmer version on Thursday. Reid’s campaign then launched a copy of Angle’s former website and accused her of toning down her rhetoric on the new website.” Reid sends a press release: “Sharron Angle must really be scared that the extreme positions she has held for her lengthy political career are already coming back to haunt her.” (Goddard, 2010)

Sharron Angle’s strategy to portray herself as more extreme during the primary campaign and then shift to appear more moderate during the general election campaign is not without reason. Candidates understand that primary voters are more engaged, informed, and interested than general election voters. Candidates who are faced with a two-stage electoral process (a primary election and then a general election) must campaign within, and appeal to, very different electorates. Ambitious candidates take this into account when formulating campaign strategies, and attempt to shift their ideological platform to appear more palatable to the relevant electorate.

Although the idea of candidate shifting is reasonable and intuitive, there is a dearth of research empirically studying this phenomenon. The trouble lies in recov-

ering multiple measures of candidate ideology during a single election cycle. Most studies that include measures of candidate ideology assume that candidates have a single ideology throughout the primary and general campaigns. On the other hand, I assume that candidates can and should adapt their positions based on the electorate in which they are campaigning. Politicians are certainly aware of this fact. That is why Richard Nixon told Bob Dole if he wanted to win the Republican Presidential nomination he should “run like hell to the right,” and once he was nominated he should, “run like hell back to the center.”

Mayhew (1974) said that members of Congress are single-minded seekers of re-election (page 5). He goes on to discuss the electoral and institutional implications of this goal. The key point for my purposes is that candidates are most concerned with winning the election. No matter what other goals a candidate may have (such as power, prestige, or policy outcomes), they need to get elected before those other goals can be pursued. The problem is that candidates are faced with two elections, and two different electorates.

The perfect candidate would look one way to the primary electorate and another way to the general electorate. Brady, Han and Pope (2007) argued that when faced with such a dilemma candidates choose to position themselves closer to their parties’ primary electorates (page 80). However, this view assumes candidates choose a single position prior to the primary election, and maintain that position throughout the general election campaign. However, according to Holbrook (1996) campaigns are best seen as a process not a single event (page 46). Here I argue that candidate positioning is also a process, and more specifically, that after the primary elections, candidates should attempt to adjust their position so they are closer to the general electorate’s median voter.

Sharron Angle’s strategy to first portray herself as staunch conservative to secure the Republican nomination and then moderate her position to align herself closer

to the general electorate, is precisely the kind of behavior we should expect when candidates are faced with two different elections and two different electorates. To test for the presence of this behavior, I estimated two measures of Senate candidate ideology, one for the primary campaign and another for the general campaign. If candidates were completely free to move wherever they wish, we should expect that they would position themselves on their primary electorates' median voter positions during the primary campaign, and then shift to the position of the general electorate median voter during the general election campaign. However, there are several factors that restrict candidate ideological location.

Evidence of Shifting

Candidates have to win the primary election if they want to carry their party's label into the general campaign. Rational candidates realize this fact and place a great deal of emphasis on their primary campaigns. This is confirmed by a quick look at the correlation between candidate primary ideology and their relevant party's primary ideology—displayed in Table 4.1.

Table 4.1: Correlation Between Candidate & State Ideology

	State Primary Ideology	State General Ideology
Candidate Primary Ideology	.934	.233
Candidate General Ideology	.909	.269

Note: This only includes Senate candidates who ran in both the Primary and General Elections.

Candidate primary ideology is correlated .934 with their state party's primary ideology. The table also reveals that there is a much stronger relationship between candidate general ideology and state primary ideology than between candidate general ideology and state general ideology. Since candidate ideological shifting between the

primary and general election campaigns is restricted by their primary platform, party identification, the need to maintain credibility, information quality, and uncertainty in the electorate, it is not surprising that their primary ideology is more closely aligned with the primary electorate than their general ideology is with the general electorate. Nevertheless, this does not mean candidates neglect to shift their ideological positions in response to the general electorate.

Figure 4.1 illustrates an example of candidate shifting in the 2002 Iowa Senate election. The circle represents the candidate ideology during the primary campaign, and the point of the arrow represents the candidate ideology during the general election campaign. The incumbent Democrat Tom Harkin's primary ideology was much closer to the general median voter than was the Republican challenger Greg Ganske's primary ideology. Harkin's initial position is right (the moderate side) of the Democratic median voter. On the other hand, Ganske's initial position is to the right (the extreme side) of the Republican median voter. Since both of the primary median voters have about the same distance between them and the general median voter, Ganske must shift a much greater distance following the primary election than does Harkin. This is in fact what happened, but even with the larger shift, Ganske was still not as close to the general median voter as was Harkin.

Figure 4.1: Example of Candidate Shifting: Iowa 2002

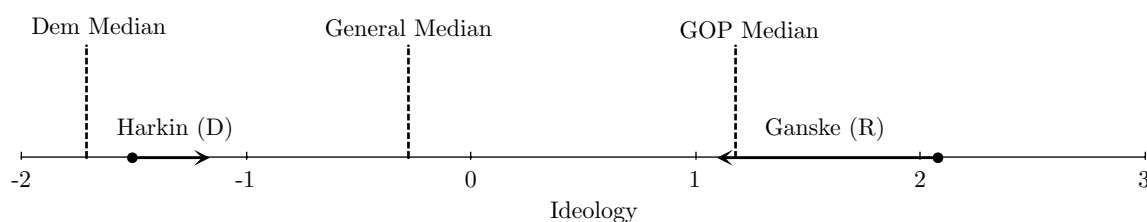


Figure 4.2 illustrates another example of candidate shifting, this time in the 2008 Kentucky Senate election. Here, Republican Mitch McConnell is the incumbent and Democrat Bruce Lunsford is the challenger. As in the previous example, the candidate who is on the extreme side of his party's median voter shifts a greater distance than the candidate who is on the moderate side of his party's median voter. However, unlike the previous example, the candidates' primary median voters do not have the same distance between them and the general median voter. In this case, the Republican median voter is much closer to the general median voter than is the Democratic median voter. Even if Lunsford's primary ideology was on the moderate side of his party, he still had to shift a greater distance to make up the extra distance between the Democratic median voter and the general median voter.

Figure 4.2: Example of Candidate Shifting: Kentucky 2008

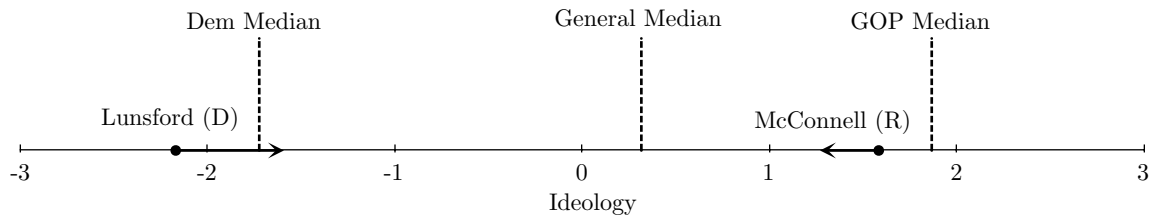
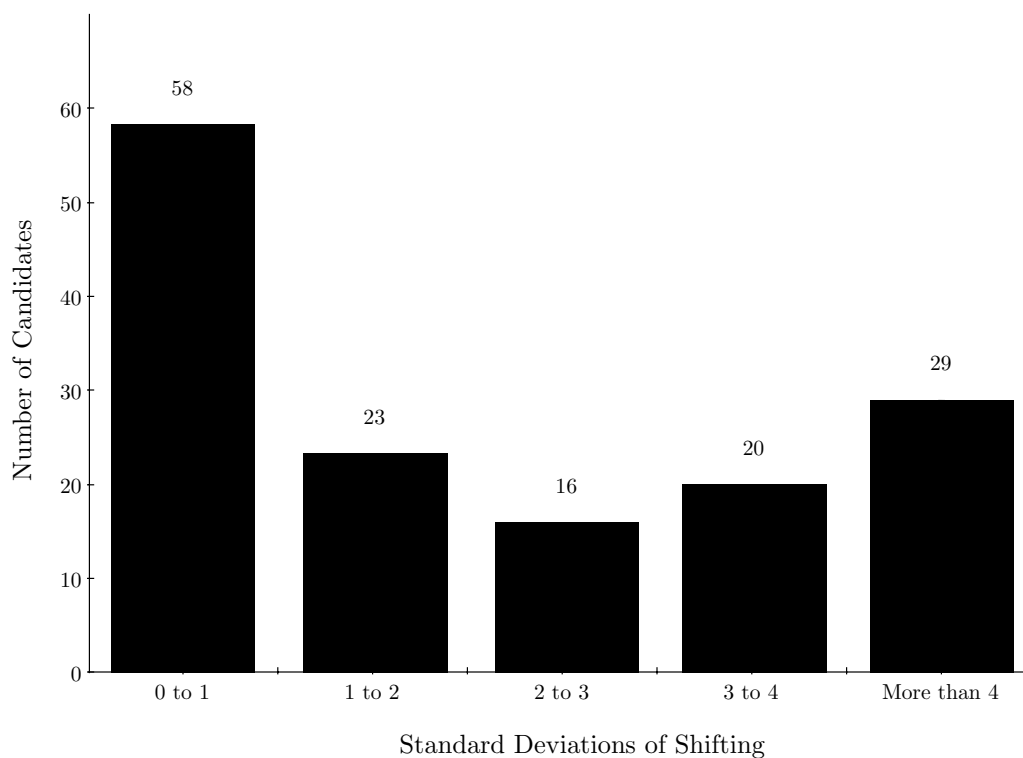


Figure 4.3 summarizes candidate shifting and demonstrates that candidates do indeed shift towards the middle after the primary campaign. The y-axis represents the number of candidates that shifted and the x-axis indicates how far they shifted. The x-axis is scaled in standard deviations of each candidate's primary ideology density. The figure indicates that 58 candidates shifted between zero and one standard deviation of their primary ideology—representing about 25 percent of all the candidates included in the estimation ($N=235$). Overall, more than 62 percent of candidates shifted

towards the middle following the primary election. Clearly Senate candidates shift towards the middle after the primary election, but there is also a lot of variation in the distances of their shifts.

Figure 4.3: Candidate Shifting Toward General Median Voter



Some candidates moved large distances following the primary election, while other candidates moved very little. What explains this behavioral difference? In a very technical sense, candidates are completely free to shift from one end of the ideological dimension to the other. However, if this were completely true in practice we would see candidates position themselves on their primary electorates' median voter positions during the primary campaign, and then shift to the position of the general electorate's median voter during the general election campaign. However, theoretically (and practically) they face a number of restrictions.

Restrictions to Shifting

First, candidates need to win the primary before they can move on to the general election campaign. This means that candidates need to initially locate themselves somewhere in the ideological distribution of their party's primary voters. The degree of restriction that this places on candidates will be dependent on the ideological distribution of the state. If the primary voters were spread out, a candidate will have more freedom than she would if the voters were compact.

The level of competition that a candidate faces in the primary election can also restrict her primary ideological placement. If a candidate is uncontested in the primary, then she will be quite free when choosing where to place herself. On the other hand, if the candidate faces competition she may have to align herself more closely with her party's median voter to ensure the nomination.

Once candidates have initially placed themselves during the primary campaign, they are restricted as to where they can place themselves in the general election campaign. However, candidates should try to move towards the center after the primary election. For several reasons (which I will discuss later) they may have trouble accomplishing this; but, generally speaking, I would assume that there will be some movement towards the center.

Candidates would not be expected to shift from one extreme to the other. Besides the fact that this would not be a strategically sensible idea (since the candidates would alienate a large portion of the electorate), the voters may have a hard time swallowing such a dramatic change. A candidate who engages in such extreme shifts could lose credibility with the electorate. Downs (1957) argued that parties will not be able to dramatically shift their ideology overnight and will maintain fairly stable ideologies (page 109). We should expect that candidate ideologies would also show some stability.¹

¹One would also assume that candidates would show at least some honesty as to their actual

Candidates are also limited by the quality of information they have about the voters' ideologies. Generally speaking, candidates cannot be precisely sure where the median voter is located, nor can they be certain about the shape and form of the ideological distributions of the electorates. That being said, candidates who have better information about the electorates will be able to position themselves closer to the median voter than candidates who have relatively poor information. On the other hand, low information and uncertainty also provide candidates with opportunities to shift their ideological positions.

Voters are uncertain as to the precise location of the candidates. Voters can get quite a bit of information about a candidate from only a few cues, such as race, sex, endorsements, and party identification (Downs, 1957; Popkin, 1991). However, research has also found that the value of information regarding candidates can be negatively affected by voter-specific characteristics, such as a voter's level of political knowledge (Lau and Redlawsk, 2001), or by candidate-specific characteristics, such as mixed cues (Rahn, 1993). Furthermore, many individuals who end up voting in the general election pay little attention to the primary campaigns and would not necessarily know where the candidates were located during the primary campaigns, nor would they necessarily register a shift in a candidate's ideological platform.

Hypotheses

The central question to answer for this chapter is whether or not candidates shift their ideology between the primary and general elections. However, the two-stage primary-general election framework with myopic voters in the general elections suggests that there will be variation in the extent of shifting across candidates. The distance between the primary and general elections' median voters will affect how far candidates need to shift. Candidates who come from states with greater distances ideological position—however, this point may be debatable.

between their party's median voter and the general electorate's median voter will need to shift farther than candidates whose primary median voter is much closer to the general median voter.

H₁: Greater distances between a primary median voter and a general median voter will lead to greater shifts in candidate platforms.

Candidates whose primary ideology places them on the far or extreme side of their party's median voter will have to shift a greater distance than if their primary platform had placed them on the near or moderate side of their party's median voter.

H₂: Candidates whose ideological locations in the primary are farther away from the general median voter will shift greater distances than candidates whose primary platforms are closer to the general median voter.

A candidate's initial ideological placement can be affected by competition during the primary campaign. Candidates who run unopposed in the primary election will be able to select a primary ideology that places them closer to the general median voter than candidates who have to fight for their party's nomination. Subsequently, the candidates who run unopposed will be closer to the general median voter during the primary campaign, and will not have to shift as much as candidates who face competition during the primary.

H₃: Candidates who have greater primary competition will need to have a primary platform that is closer to the primary median voter than candidates who have less primary competition and will subsequently shift a greater distance after the primary election.

A candidate's experience will also affect the distance he or she can shift. Experienced candidates will have a better understanding of what voters are seeking. In other words, experienced candidates will have better information regarding the ideological distribution of the electorates. Experienced candidates should also be more adept

at communicating their ideological platforms to the voters. Generally speaking, experienced candidates will behave more strategically than non-experienced candidates (Jacobson, 2004). On the other hand, it could also be the case that experienced candidates are better known by the public. Candidates who have a reputation within an electorate may find it more difficult to shift their platform between the primary and general election campaigns. That being said, the public's dearth of political knowledge sways me to side with them not having a clear idea of candidate ideology. Thus, all other things being equal, better communication ability combined with a better understanding of what voters want means that experienced candidates should be able to present appropriate messages that lead to greater shifts.

H₄: All other things being equal, experienced candidates will shift greater distances than inexperienced candidates.

Results

Table 4.2 displays the results of a regression where candidate ideological shifting between the primary and general campaign is the dependent variable. In the first model, the independent variables include the distance between the state general ideology and the relevant party primary ideology—labeled “Median Voter Difference.” “Primary Ideology Distance” measures the distance between a candidate’s primary ideology and his or her state’s general electorate median voter. “Primary Competition” is measured as the spending gap between candidates. Finally, “Incumbent” is a dichotomous variable indicating whether the candidate is an incumbent or not.

Overall, the variables included in the first model explain a little more than 20 percent of the variation in candidate shifting. The variable “Median Voter Difference” is significant, but is in the wrong direction. The coefficient indicates that candidates

Table 4.2: Candidate Ideological Shifting

Variable	Coefficient	Robust S.E.
Median Voter Difference	-0.349*	0.09
Primary Ideology Distance	0.515*	0.08
Primary Competition	0.043	0.16
Incumbent	0.215*	0.08
Constant	-0.257*	0.17
Adjusted R ²	0.205	
Number of Observations	235	

Significance Levels: $*p \leq .05$, two-tailed test.

This only includes Senate candidates who ran in both the Primary and General Elections.

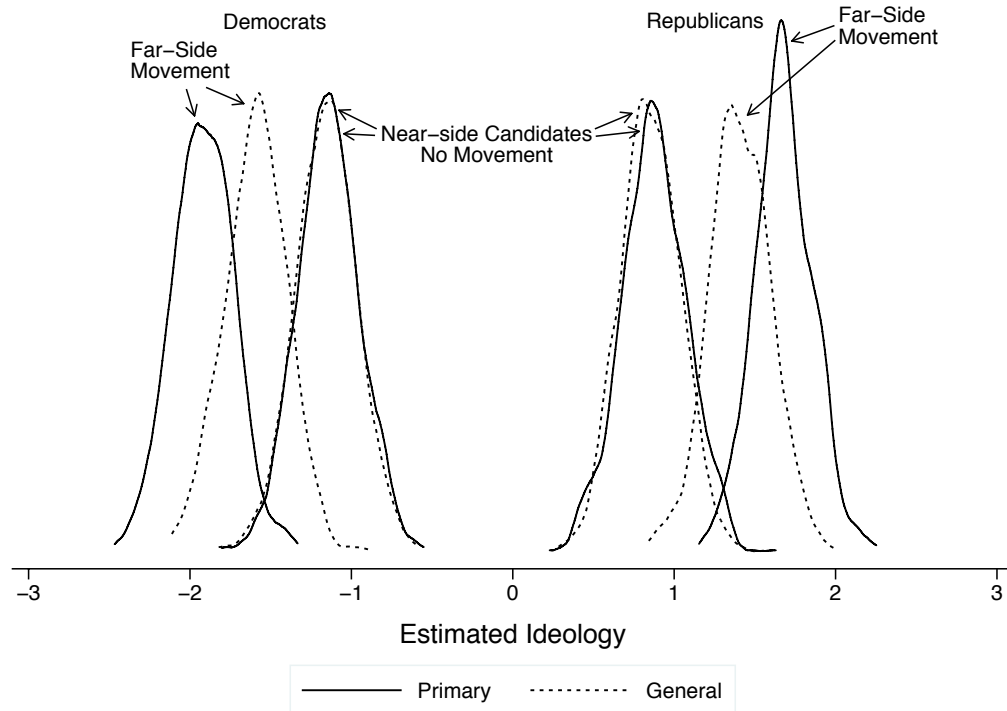
Standard errors are clustered by election.

from states with large distances between their primary and general median voters shift smaller distances after the primary than candidates from states where the primary and general median voters are closer. On the other hand, the variable “Primary Ideology Distance” shows that candidates whose primary ideology places them far away from their state’s general median voter move greater distances than candidates whose primary ideology places them closer to their state’s general median voter. A deeper analysis revealed that candidates from state’s with greater distances between their primary and general median voters had primary ideologies that were further from their general median voter than candidates with shorter distances between their state’s primary and general median voters. In fact, the Median Voter Difference and the Primary Ideology Distance are correlated at .62.

Figure 4.4 illustrates the ideological movement of candidates between the primary and general elections and helps explain the reason I chose to use Relative Primary Ideology. Moderate candidates (candidates whose primary ideology is between the primary and general median voters) behaved much differently than extreme candidates (candidates whose primary ideology is on the far-side of their party’s median voter). The 4 solid lines represent the average primary ideology for a Democrat and

Republican who was on the near-side and far-side of their parties' primary electorates. The dotted lines represent the average general ideology of the candidates after they shifted their ideological positions.

Figure 4.4: Candidate Movement



On average, candidates who were located between the primary and general median voters showed virtually no movement. However, on average, candidates that were located on the far-side of their primary median voter moved about 1.5 standard deviations of their primary ideology towards the middle. Clearly, the amount of ideological movement candidates portrayed after the primary election is related to their ideological location during the primary campaign. Candidates undoubtedly realize that they need to align themselves with the general electorate if they hope to win the general election. Candidates whose primary ideology is too far from the general median voter need to move a large distance to be viewed as an acceptable

general election candidate. Figure 4.4 shows that, even after a large shift towards the middle, candidates whose primary ideology placed them on the far-side of the primary median, still found themselves further away from the general median voter, than candidates who were moderate during the primary campaign.

Undoubtedly candidates do not obtain precise measures of the state's general ideology, their parties' primary ideologies, and where they placed themselves during the primary campaign. A more reasonable assumption is that, after the primary election is over, candidates take a look at their primary position and try to move as close to the general electorate as they can without alienating the voters who supported them in the primary. The results of the primary election would give the candidates a good indication as to where the actual location of the primary electorate was and who their supporters were. If candidates find they were only supported by the extreme elements of their party, they would realize they need to shift a large distance towards the middle to have a real shot at winning the general election. On the other hand, candidates who were supported by the median and moderate voters of their party may believe they do not need to adjust their position very much at all.

To this end, I estimated the model again this time including the variable labeled "Relative Primary Ideology." This measures the distance that a candidate's primary ideology is from his or her party's primary median voter, taking into account whether or not the candidate is more extreme or more moderate than his or her primary median voter (positive values indicate a candidate who is moderate relative to his or her primary voters, and negative values indicate a candidate who is more extreme than his or her primary voters). The results are displayed in table 4.3.

The negative coefficient for Relative Primary Ideology is expected. It tells us that candidates who find themselves on the extreme side of their party's primary median voter will move greater distances than if they were on the moderate side of their party's median voter. Moreover, the coefficient for Median Voter Difference

Table 4.3: Candidate Ideological Shifting

Variables	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)
Median Voter Difference	0.143* (0.07)	0.126# (0.07)
Relative Primary Ideology	-0.537* (0.06)	-0.951* (0.17)
Primary Competition	0.044 (0.16)	0.052 (0.16)
Incumbent	0.233* (0.07)	0.205* (0.07)
M V Difference X Relative Prim Ideology		0.310* (0.12)
Constant	-0.218 (0.18)	-0.191 (0.17)
Adjusted R ²	0.221	0.241
Number of Observations	235	235

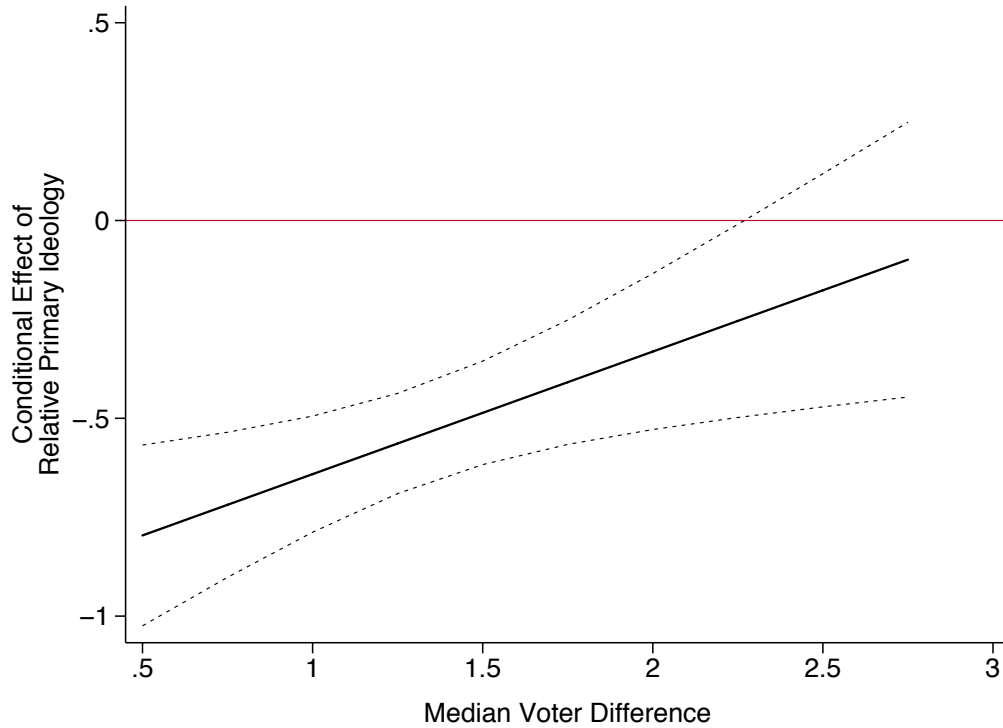
Significance Levels: * $p \leq .05$, two-tailed test; # $p \leq .05$, one-tailed test.

This only includes Senate candidates who ran in both the Primary and General Elections

Standard errors are clustered by election.

is positive, indicating that candidates who come from states with greater distances between their primary and general median voters shift farther than if they come from states with smaller distances.

Figure 4.5: Conditional effect of Relative Primary Ideology



The second model in table 4.3 includes an interaction term between Relative Primary Ideology and Median Voter Difference. The conditional effect of relative primary ideology across all the values of median voter difference is illustrated in figure 4.5.² The solid line is the effect and the dashed lines represent the upper and lower

²The conditional effect of relative primary ideology was calculated with the following equation:

$$\frac{\partial \text{Movement}}{\partial \text{RelID}} = \beta_1 + \text{MVDiff} \beta_3$$

The upper and lower confidence bounds were calculated using the standard error recommended by Brambor, Clark and Golder (2006). The standard error is:

$$\sigma_{\frac{\partial \text{Movement}}{\partial \text{RelID}}} = \sqrt{[\text{var}(\beta_1)] + [\text{MVDiff}^2 * \text{var}(\beta_3)] + [2 * \text{MVDiff} * \text{cov}(\beta_1, \beta_3)]}$$

95 percent confidence bounds. The effect meets classic requirements of statistical significance wherever all three lines are on same side of zero (which is referenced by the horizontal line). The figure indicates that the conditional effect of a candidate's relative primary ideology is significant across all values of median voter difference up to 2.25 (that includes 95 percent of the cases in this study).

The effect for relative primary ideology is largest when the difference in median voters is smallest. But when the difference in median voters is large the effect of primary ideology approaches zero. To get a better idea of how this affects candidate movement I included figure 4.6.

Figure 4.6: The Effect of Relative Primary Ideology and Median Voter Difference on Candidate Movement

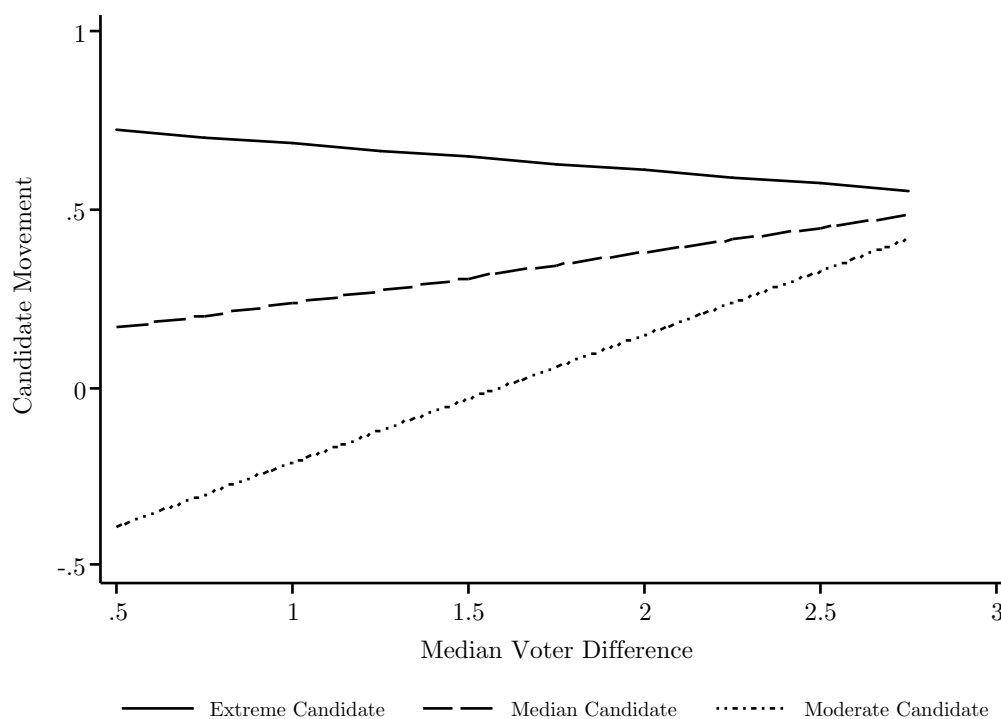


Figure 4.6 includes three lines representing candidates with three different relative primary ideologies. The solid line represents an extreme candidate (relative primary ideology is one standard deviation to the extreme side of his or her party's median

voter). The dashed line represents a median candidate (the median value of relative primary ideology) whose ideology places them very close to their party's median voter. The dotted line represents a moderate candidate (relative primary ideology is one standard deviation toward the general electorate).

The figure shows that when the difference between the median voters is small, then the candidate's relative primary ideology is an extremely important indication of how far the candidate is expected to move. When the median voters are close, extreme candidates are expected to move a large distance, but median and moderate candidates are not expected to move at all. On the other hand, candidates who are in contests where the median voters are far apart are all expected to move, regardless of the relative primary ideology. Another way to think about this is that, extreme candidates are always expected to move toward the middle following the primary election. However, moderate candidates are only expected to move towards the middle if there is a large difference between their party's median voter, and the general electorate's median voter.

The variable measuring primary competition failed to reach statistical significance in any of the models. I hypothesized that candidates with greater primary competition would have to align more closely with their party's median voter, and subsequently would have to shift greater distances after the primary. However, there is no evidence to support this hypothesis. However, a closer look revealed that non-incumbent candidates are much more likely to face primary competition than are incumbents.

For example, from 2000 through 2008 only about 50 percent of Senate incumbents had any primary competition. However, most of those Senators did not face strong competition. Less than 10 percent of incumbents who had primary opposition received 60 percent or less of the primary vote. So among all Senate incumbents, only about 5 percent had any real primary competition. On the other hand, non-incumbents face a lot more primary competition. During the same time period (2000-2008), 82 percent

of Senate challengers faced some form of primary competition. Moreover, nearly 60 percent of those challengers received 60 percent or less of the primary vote. So among all Senate challengers, about 49 percent faced strong primary competition. This is much higher than the 5 percent of incumbents who faced strong primary competition.

The variable measuring incumbency had a positive effect on candidate shifting. I hypothesized that all other things being equal, experienced candidates would shift greater distances than unexperienced candidates. This hypothesis is supported in all of the models. Clearly incumbents shift greater distances than non-incumbents.

Summary My analysis revealed that candidates do indeed shift toward the middle following the primary election. Candidates align themselves with the primary electorate to win the primary election. Following the primary election, candidates shift their ideology to appeal to the more moderate general electorate.

Candidates who came from polarized states had to shift farther than candidates from less polarized states. Greater distance between primary and general median voters lead to greater candidate shifts. Candidates whose primary ideology placed them far from the general median voter had to shift farther than candidates whom initially placed themselves closer to the general median voter. The models also revealed that incumbents shifted farther than challengers. Experienced candidates have better information about the voters, are more adept at communicating to the voters, and behave more strategically than unexperienced candidates.

Primary voters are more involved, knowledgeable, interested, and ideologically extreme than general election voters. This leads candidates to take extreme ideological positions during the primary campaigns. Candidates are then motivated to shift to a more moderate ideology after the primary election to curry favor with the more moderate general election voters. In this analysis I found that Senate candidates were closely aligned with their primary electorates (correlated at .934) during the primary

campaign. And although I found that candidates do indeed shift towards the middle after the primary election, they do not completely converge to the general electorates median voter.

Today, Congress is more polarized than it has been in many decades. Twenty-five or thirty years ago, scholars were calling for more disciplined parties and clearer choices between the parties. However, now the public is concerned that there is not enough agreement among the parties, and that there is too much polarization. The current state of congressional polarization could be the result of a higher degree of discipline among the parties. However, it could also be a result of the extreme ideological polarization between primary electorates.

The next step is to understand the electoral implications of candidate ideological shifting. Do candidates who shift the largest distance fare the best in the general election? Or is there a limit to the amount of shifting that the public can swallow? Are candidates punished if they shift too far?

Chapter 5

Candidate Vote Share

In the introductory chapter I said that the base theoretical model I use for this analysis is a spatial vote model. Spatial vote models have a long history in political science and can be traced as far back as Hotelling (1929). However, it was the work of Downs (1957) and Black (1958) that marked the beginning of a surge in spatial vote literature.¹

Most spatial voting theories contain two sets of actors who are both rational and self-interested, namely candidates and voters (Enelow and Hinich, 1984). Both of the actors have some stake in the outcome of the election. The candidate gains employment, power, prestige, and the ability to influence political policies (Mayhew, 1974). Voters will receive the benefit of favorable government policies, if their most favored candidate wins the election (Fiorina, 1981). Spatial theories also predict that voters will vote for the candidate whose ideology is “closest” to their own along some relevant policy dimension. In the same way that candidates receive the most utility from policy choices that are precisely aligned with their optimal preference, voters receive the most utility by voting for a candidate whose ideology is most closely aligned with their own. This is because these candidates are more likely to support

¹Ansola-behere and Snyder (2000); Canes-Wrone, Brady and Cogan (2002); Hinich and Pollard (1981); Rabinowitz (1978); Weisberg and Grofman (1981) are just a few.

policies that are favorable to the voter. Moreover, a voter's expected utility from voting for any given candidate is negatively related to the distance between that voter's ideological position and the ideological position of the candidate. As we saw in figure 2.3 on page 38 for candidates, a voter's utility is also single peaked and monotonically decreasing from their most preferred position (Black, 1958). This is the idea of proximity voting and characterizes the classic Downsian spatial model (Westholm, 1997).

It was not long before scholars began to question some of the fundamentals underlying the classic Downsian spatial model. One of the earliest and perhaps most important attacks challenged the validity of a single dimension of political conflict (Stokes, 1963). Stokes (1963) argued that surveys routinely find independence among individuals' attitude dimensions. Since the Downsian model relies on a single dimension of political conflict, if voter attitudes are multidimensional this causes some serious problems for spatial models. The presence of multiple dimensions make it much more difficult to find an equilibrium—a single position available to candidates that beats all other positions. However, Stokes provided nothing in the way of evidence to support his claim. Moreover, Plott (1967) showed that under the right conditions an equilibrium in multiple policy dimensions is possible; however, McKelvey (1976, 1979) found that these conditions are extremely fragile.² However, Poole and Rosenthal (2007) found that more than 80 percent of legislators' roll call votes could fit into a single left-right ideological dimension. Moreover, adding a second dimension only improved the accuracy by 2-3 percent. Additional dimensions provided no measurable improvement. Thus, I feel comfortable proceeding with the original unidimensional framework outlined by Downs.³

²McKelvey (1976, 1979) found that voter preferences need to be arranged in a radial symmetric way in order for an equilibrium to exist. However, Ansolabehere and Snyder (2000) showed that the introduction of valence issues into a multidimensional setting is sufficient for equilibria to exist.

³Perhaps it should not be surprising that the vast majority of political conflicts in the United States are compressed into a single dimension. When you consider how political issues evolve, if enough people think that an issue is important, eventually the two major U.S. political parties

Another challenge to the classic Downsian spatial model, led by Rabinowitz (1978), argued that the direction of the candidate's ideological position rather than the proximity is important to a voter's choice.⁴ The idea is that voters are not informed enough to know if one candidate's position is closer to their own than another candidate, but they know what side of the issue the candidates fall on. In many cases, the theories predict the same vote choice, but there are some occasions when they lead to different predictions.

Figure 5.1: Directional vs. Proximity

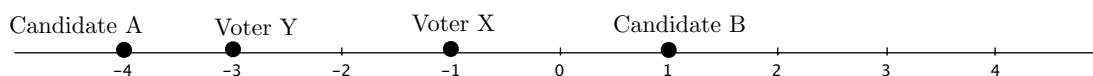


Figure 5.1 illustrates an example of when the directional voting theory leads to a different prediction than the proximity voting theory. Under proximity voting, the voters simply choose the candidate whose ideology is closest to their own. In this case, Voter Y will choose Candidate A and Voter X will choose Candidate B. However, directional voting theory predicts that Voter X will choose Candidate A rather than Candidate B. Even though Voter X is 1 point closer to Candidate B than to Candidate A, the voter is on the same “side” of the dimension as Candidate A and this determines who the voter will choose.

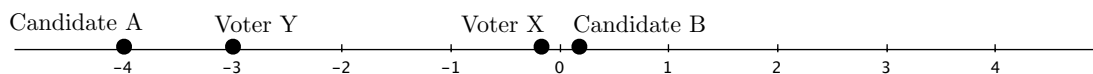
Although the scholars who have promoted the directional theory argue that directional theory requires less knowledge from the voters, I am not so sure. Under directional theory, voters need to know where one side of the issue is separated from the other. Moreover, directional theory would predict that a voter would not choose

choose a stance on the issue.

⁴The research promoting directional voting over proximity voting included MacDonald, Rabinowitz and Listhaug (1998); Rabinowitz (1978). Rabinowitz and MacDonald (1989) elicited a response from Westholm (1997) defending proximity voting. Morris and Rabinowitz (1997) found evidence for both proximity voting and directional voting.

a candidate whose ideology is extremely close to their own, if they are separated by this cutting line. The problem, as I see it, is illustrated in figure 5.2. According to directional theory Voter X would choose Candidate A because they are on the same side of the dimension. However, there is virtually no difference between Voter X and Candidate B. I find it hard to agree with the prediction made by the directional theory, that, in this example, Voter X would choose Candidate A. Rather, the prediction made by proximity theory—and the classic Downsian model—that Voter X will choose Candidate B seems more plausible.

Figure 5.2: Directional vs. Proximity



Finally, in a critique of directional theory, Westholm (1997) found several inherent problems. First, he argued that directional theory, because of its use of the largely unspecified “region of acceptability,” is less falsifiable than proximity theory. Second, he argued that directional theory had been incorrectly tested by relating sets of alternatives across individuals rather than within individuals. Once the directional theory was properly tested, Westholm found that the classic Downsian proximity theory was superior. Thus, in this analysis, I assume voters base their vote choice on proximity and not direction.

The aggregate effect of the classic Downsian proximity model translates into the Median Voter Theorem (Downs, 1957). The Median Voter Theorem predicts that, in a two-candidate election, a candidate will receive the greatest number of votes by aligning himself or herself with the electorate’s median voter.⁵ This does not mean

⁵Although empirical results show that candidates do indeed deviate from the median voter and that many other factors affect the outcome of elections, the mathematical and theoretical robustness of the median voter result is unquestionable. In a two-candidate contest, under an enormous variety

that candidates must align precisely with the median voter to win the election, but it does mean that candidates must align closer to the median voter than their opponent, if they want to win the election.

The median voter theorem, coupled with the large differences between the distributions of primary and general electorates, means that the best candidate will look one way—ideologically speaking—for the primary electorate and will look another way for the general electorate. In the last chapter, I found that candidates respond to this by aligning themselves with their party’s primary electorate during the primary campaign, and then shift towards the middle to gain more votes during the general election. In this chapter, I will test a number of questions related to the effect of candidate location choices and movement on candidate vote share.

Theory & Hypotheses

The central question to answer in this chapter is relatively simple: is candidate vote share affected by candidate ideological distance from the electorate? This is the foundation of my argument. If candidate vote share is not related to his or her ideological distance to the median voter, then there is no incentive for the candidate to align with the median voter. Thus, there would be no reason to believe that candidates shift their ideology between the primary and general election. However, in the previous chapter, I have already found that candidates do shift their ideology following the primary election.

Candidates have a good reason to shift their ideology following the primary election. Candidate vote share should decrease as their ideological distance to the median voter increases. This means that candidates who find themselves far from the median voter will have a much harder time winning the election than candidates who are much closer.

of electorate distributions, the candidate who is closest to the median voter, is closest to a majority of the electorate.

Although most studies have focused on general elections, the effect of ideological proximity on vote share should be present in both primary and general elections. However, there may also be some important differences between primary and general elections.

One difference between primary and general elections is that in primary elections incumbents should be given some ideological breathing room. Since incumbents have already shown that they are viable candidates who can win in general elections, primary voters should be more willing to vote for incumbents who are ideologically farther away, than for untested challengers. This expectation implies an interactive effect between a candidate's ideological distance and the candidate's incumbency status. It means that, during primary elections, incumbents will not lose as many votes as non-incumbents, even if they are the same distance from the median voter.

H₁: A candidate's vote share is negatively related to his or her distance from the median voter.

H₁(incumbents): The negative relationship between ideological proximity and vote share should be smaller for incumbents in primary elections.

Another important question I intend to answer is if candidates get punished by the general electorate for their primary campaign ideology positions. The idea here is if a candidate portrays him or herself as very conservative or very liberal during the primary campaign, the candidate will receive fewer votes in the general election than if the candidate's primary ideology was closer to the general median voter, regardless of how far the candidate shifts his or her general campaign ideology. Even if an extreme candidate tries to moderate his or her position to appeal to the general electorate, the public may not buy the change.

However, unless the general electorate is aware that the candidate took an extreme position during the primary campaign, there is no reason to believe that the candidate will be punished. Someone or something needs to bring this to the atten-

tion of the general electorate. As we saw with the Sharron Angle example, Harry Reid's campaign relaunched her primary campaign website, and exposed her previous extreme views. It seems reasonable to assume that the most likely someone or something to bring a candidate's extreme position to the electorate would be the candidate's opponent. I will discuss the operationalization of this with the other variables in the specific models; however, it should include a measure of spending that occurred in the general election. If a candidate's opponent is spending a lot of money on the campaign, it is more likely that ads will appear attacking the candidate's voting record and/or stance on various issues. It is easy to imagine an ad with a not so alluring picture of a candidate, and a solemn voice saying, "candidate X said he supported stance Y, but now he says he's against it...come on candidate X, make up your mind."

Another way that candidate primary ideology can affect general election vote share is by affecting the relationship between a candidate's general election ideological proximity and vote share. In the first hypothesis, I argued that ideological distance is negatively related to vote share—candidates who are farther away receive fewer votes. However, if a candidate was extreme during the primary campaign, then he or she may get punished more severely in the general election for his or her distance from the median voter, than he or she would have if his or her primary ideology had been more moderate.

H₂: All other things being equal, a candidate will receive a smaller general election vote share if his or her primary ideology is farther from the general electorate's median voter, than if the candidate's primary ideology is closer to the general median voter.

Other Variables For a variety of reasons, incumbents have a large electoral advantage in both chambers of Congress (Jacobson, 2004). These reasons include name recognition, constituency service, campaign experience, etc. Although the advantage

is especially strong in the House, incumbent Senators also enjoy an electoral edge over non-incumbents. Hence, incumbents should receive more votes than non-incumbents.

A multitude of studies have found that campaign spending is positively related to turnout (Brady, Han and Pope, 2007; Clouse, 2011; Cox and Munger, 1989; Holbrook and McClurg, 2005; Jackson, 1993, 2002; Patterson and Caldeira, 1983). Candidates, especially challengers, need to spend money to win elections (Jacobson, 2004). I expect that campaign spending will be important during both primary and general elections.

Competition also affects a candidate's vote share (Clouse, 2011; Cox and Munger, 1989; Patterson and Caldeira, 1983). Candidates who are faced with competition will have a harder time getting votes, and will need to campaign more effectively. The relationship between competition and vote share should be present in both primary and general elections.

Testing the Hypotheses

Equation 5.1 describes the expected relationship more precisely. The vote share candidate- i receives is based on the absolute difference between the candidate's ideology (I_i) and the electorate's ideology (I_s). The model also includes a vector of candidate specific characteristics (\mathbf{X}_i) and district characteristics (\mathbf{Z}_s). The variables included in \mathbf{X}_i and \mathbf{Z}_s are different depending on the election type (i.e. primary vs. general). I will discuss the various candidate and district characteristics in their respective sections.

$$Vote\ Share_i = |I_i - I_s|\beta + \alpha + \mathbf{X}_i\beta_n + \mathbf{Z}_s\beta_n \quad (5.1)$$

Before preceding to the analysis, I need to say a few words about the state

ideologies. When I estimated the state ideologies in Chapter 3, I used a multilevel model that incorporated population data and survey data. The National Annenberg Election Survey data served as the base of the state ideology measures. Since the NAES used a 5-point ideology scale, the state ideologies were estimated on that same 5-point scale. However, the candidate ideology estimates were not recovered on this 5-point scale. Thus, some transformation of the state ideologies and/or the candidate ideologies must occur before any comparisons can be made.

If we assume that both measures of ideology are continuous and have the same shape (but with different means and variances), then the scaling function can be decomposed into a combination of a linear function and a nonlinear component (von Davier, Holland and Thayer, 2004; von Davier, 2007). This means that we can use linear regression with a constant term to transform one of the ideology measures to the other's scale. I chose to transform the state ideologies to fit on the candidate ideology scale.

Equation 5.2 displays the model I used to transform the state ideologies. The scaled-state ideologies were obtained by regressing state ideology on candidate ideology. Values for scaled-state ideology were then imputed based on the predicted estimates of equation 5.2. I scaled each state's primary ideology and general ideology separately, year by year.

$$\text{Scaled State Ideology}_{it} = \alpha_t + \text{State Ideology}_{it}\beta_t \quad (5.2)$$

Table 5.1 displays the linear and non-linear components for each year and for each election cycle. To estimate a particular state's general ideology I would start with that state's general ideology, multiple it by β_t , and then add α_t . When the table is viewed overall, a pattern between the linear component (β_t) and the non-linear component (α_t) emerges. In years when the linear term is relatively large, the

non-linear component is relatively small. In 2000, β_t , for the primary ideologies is nearly the same as β_t for the general ideologies (2.85 and 2.84 respectively). Moreover the α_t terms are also very similar (-9.36 for primary ideology and -9.03 for general ideology). However, in the following year both primary terms are different than the general election counterpart. In 2002, the β_t term for primary ideology is 3.49, but for general ideology β_t is only 1.25. So when calculating primary ideology in 2002, you have to multiple the state's NAES ideology by nearly 3 times as much as you would when calculating 2002 general ideology. However, when adding the α_t in the 2002 primary, you have to subtract nearly 3 times as much as you would when adding the general ideology α_t (-11.73 for the primary, and -4.25 for the general). Thus, although there is a lot of variation between most year's primary and general functions, the end results of the functions are similar.

Table 5.1: Scaled-State Ideology

Year	Primary		General	
	β_t	α_t	β_t	α_t
2000	2.85	-9.36	2.84	-9.03
2002	3.49	-11.73	1.25	-4.25
2004	3.05	-10.15	0.95	-3.24
2006	3.11	-10.19	4.85	-15.69
2008	3.96	-12.89	1.14	-3.57

“ β ” is the linear function and “ α ” is the non-linear component.

Before moving on I wanted to walk through one quick example. Let us scale Wisconsin ideologies in 2004. We start with each parties' primary ideologies. In 2004, the Democratic Primary ideology was 2.85, and Republican Primary ideology was 3.64. To get the “Scaled” Democratic Primary ideology, we would multiple 2.85 by 3.05, and then add -10.15. This would equate to approximately -1.46. Wisconsin's 2004 Republican Primary ideology would be $[(3.64 * 3.05) - 10.15] = 0.952$. Wisconsin's 2004 General Electorate ideology would be $[(3.25 * 0.95) - 3.24] = -0.153$.

Primary Elections

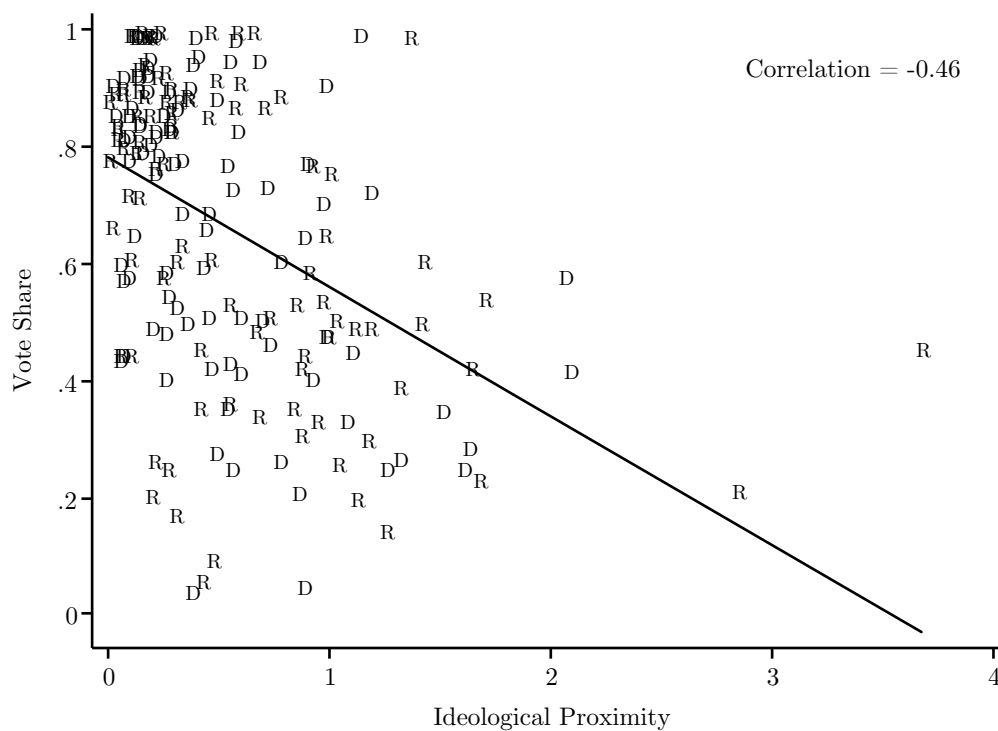
I begin with an analysis of primary elections. To get an initial sense of how a candidate's ideological distance from the primary electorate affects his or her vote share, I correlated candidate distance from the primary median voter (specifically the absolute value of candidate primary ideology minus the scaled Republican or Democratic Primary Ideology) with candidate primary election vote share. The expectation of the first hypothesis is that candidates who are farther away from their party's median voter will receive a smaller proportion of the total primary votes than candidates who are closer to their party's median voter. This initial look supports the first hypothesis.

Figure 5.3 displays the correlation between candidate distance from the median voter and candidate vote share. The figure clearly shows a negative relationship between candidate distance and vote share. Candidates who have a substantial distance between themselves and their party's median voter need to be concerned that their distance could cost them the primary nomination. Figure 5.3 includes all candidates who ran in the primary campaign and had a competitor. The figure shows that the correlation is -0.46.

There is very little difference between the parties. The overall relationship between candidate distance and candidate vote share for Republicans -0.44, and for Democrats it is -0.38. However, if we look only at candidates who actually had a primary competitor, the relationship among Republican candidates is -0.45, and -0.47 for Democratic candidates with competitors.

Aside from Ideological Proximity indicated in equation 5.1 on page 109, I also include other candidate-specific variables that indicate whether or not the candidate is an incumbent, and the level of the candidate's spending during the primary campaign. Here spending is measured as the candidate's total proportion of all candidate spending. The only state characteristic included in the primary election model is the

Figure 5.3: Primary Election Vote Share



level of competition. Here competition is measured as the spending gap between the candidates. If one candidate spent 70 percent of all candidate spending and the other candidate spent 30 percent of all candidate spending, then the spending gap for that race, and both candidates, would be 0.4. If there were more than two candidates in the race then I subtracted the total spending of candidates who were not the highest spending candidate from the value of the candidate who spent the most. This means that competition can take negative values in races where the highest spending candidate spent less than 50 percent of the total spending. Table 5.2 displays the variable explanations and expected direction.

I expect that the Ideological Proximity will have a negative effect on a candidate's vote share. Specifically, the farther away a candidate is from the electorates median voter the fewer votes that candidate will receive. I also expect that incumbents will receive more votes than challengers. This should be especially true during primary elections since incumbents are rarely subjected to strong competition. That being said, any candidate who faces competition should receive fewer votes than if he or she had no competition. And based on the measure of competition (lower values indicate higher levels of competition) I expect that competition's effect on vote share will be positive. The variable labeled spending is meant to measure the effects of money, and I expect that it will have a positive effect on the percentage of votes that a candidate receives in the primary election (Caldeira and Patterson, 1982; Cox and Munger, 1989; Hill and Leighley, 1993; Jackson, 1997; Patterson and Caldeira, 1983).

Primary Election Results

The primary election results are displayed in table 5.3. The standard errors are clustered by election. Overall the models do well, accounting for nearly 70 percent of the variation in primary vote share. As expected, the first model shows that

Table 5.2: Variable Measures and Expectations - Primary Elections

Variable	Explanation	Expected Direction
Ideological Proximity	Absolute value of Candidate Ideology minus Primary Electorate Ideology	–
Incumbent	1=Incumbent, 0=Non-incumbent	+
Spending	Candidate spending divided by the total spending of all the candidates	+
Competition	Spending gap: Difference between candidate who spent the most and other candidates	+

candidates who are farther away from their parties median voter receive fewer votes than candidates who are closer to the median voter. The coefficient for the variable labeled “Ideological Proximity” indicates that every one point of ideological distance translates to approximately 5.1 percent of a candidate’s total vote share. Although 5.1 percent may not sound like a huge number (especially since primary elections are typically not as close as general elections), keep in mind that approximately 14 percent of the primary elections in this study were decided by 5 percent or fewer votes. So, a single ideological point could have tipped the scales in favor of the candidate who lost.

During typical primary elections, Senate candidates receive anywhere from 75,000 votes to 300,000 votes. A candidate could increase his or her final vote share by anywhere from 4,000 to more than 15,000 votes by locating a single point closer to the median voter. Moreover, a single point farther away from the median voter could diminish a candidate’s final vote share by the same margin. There is clear support for the first hypothesis—candidates who are aligned closely with the median voter’s ideology have a much better chance of being elected than candidates who are not aligned closely with the median voter’s ideology.

Table 5.3: Senate Primary Vote Share 2000-2008

Variable	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)
Ideological Proximity	-0.051# (0.03)	-0.082* (0.04)
Incumbent	0.192* (0.02)	0.156* (0.03)
Spending	0.505* (0.04)	0.495* (0.04)
Competition	0.057 (0.07)	0.051 (0.07)
ID Proximity X Incumbent		0.088# (0.05)
Constant	0.190* (0.07)	0.220* (0.07)
Adjusted R ²	0.678	0.680
Number of Observations	234	234

Significance Levels: $*=p \leq .05$ two-tailed test; $\#=p \leq .05$ one-tailed test.

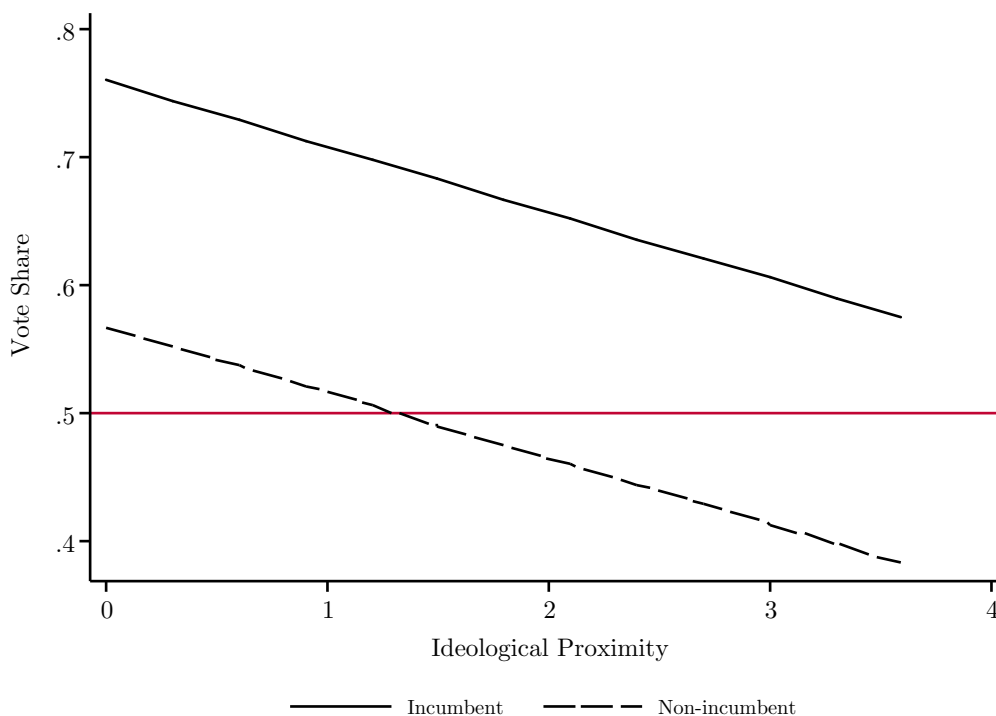
Standard errors are clustered by election.

This is also interesting because here I am looking at only primary elections. The relationship between ideological proximity and vote share has been studied in general elections, but very little research has focused on this relationship during primary campaigns. Undoubtedly, this is because of the lack of data regarding candidate ideology during primary campaigns. However, now there is empirical results to accompany the theoretical results—in primary elections, ideological distance has a negative effect on candidate vote share.

To get a better idea of how this can affect vote share and a candidate's electoral chances, I included figure 5.4. The figure illustrates the loss in vote share that candidates should expect based on their ideological distance from the primary median voter. The vertical axis measures candidate vote share; the horizontal line at the .5 value of vote share is there to reference the point where candidates go from winning the election to losing it. The variable measuring candidate ideological proximity

ranges from slightly higher than zero to 3.6 and is plotted along the horizontal axis. It is clear that every bit of distance between the median voter's ideology and the candidate's ideology costs the candidate votes.

Figure 5.4: Primary Election Vote Share: Incumbents and Non-incumbents



The results shown in table 5.3 also indicate that incumbents do better than non-incumbents. This result is also illustrated in figure 5.4. The solid line represents incumbents, while the dashed line represents non-incumbents. Both candidate types are expected to receive fewer votes if their ideological distance is great, but the negative effect is much stronger for non-incumbents.

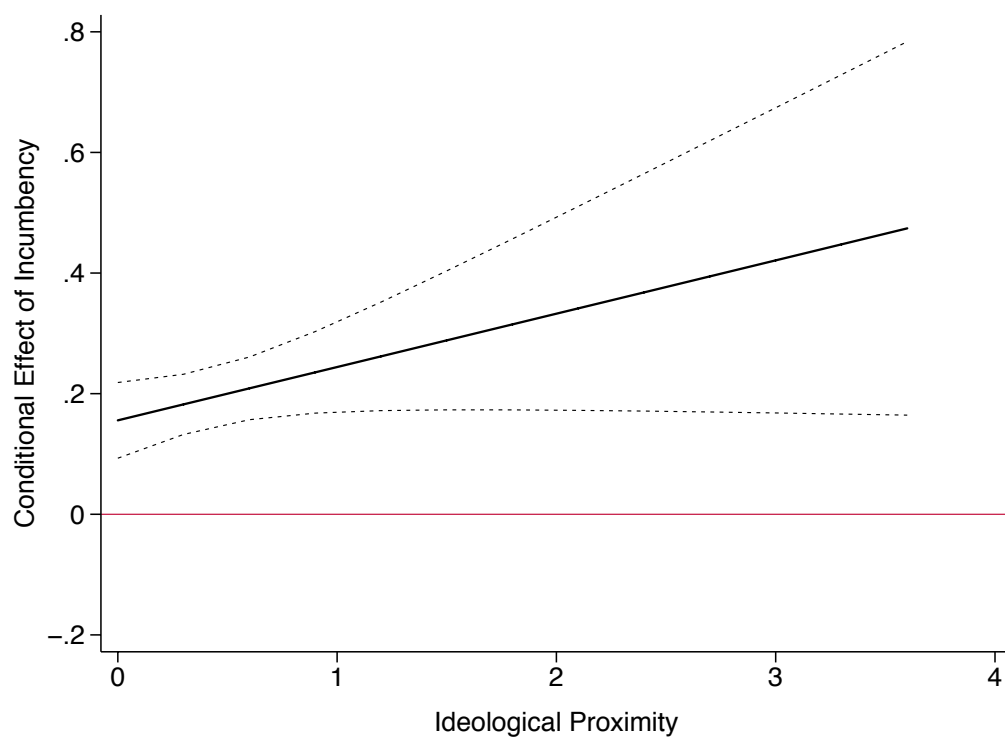
On average, and all other things being equal, an incumbent can expect to receive about 19 percent more votes than a non-incumbent. This translates into anywhere from 14,000 to nearly 60,000 more votes for incumbents. During primary elections, Senate incumbents definitely have a marked advantage over non-incumbents.

I also found support for the effect of spending on vote share. The variable represents a candidate's proportion of all the money spent by candidates during the campaign. It ranges from zero to one. Thus, the coefficient "0.505" means that a candidate who raised 100 percent of the total election funds would get 50.5 percent more votes than if the same candidate had raised zero percent of the total election funds. Although the variable measuring competition was in the expected direction, it did not meet classic requirements of statistical significance.

The second model in table 5.3 tests the effect that incumbency has on ideological proximity's relationship with vote share. Here I am investigating how the distance between the primary median voter and the candidate is affected by incumbency. Specifically, ideological proximity is interacted with the incumbent variable.

I hypothesized that the negative relationship between ideological proximity and vote share would be smaller for incumbents than for non-incumbents. This is because incumbents have already proven that they are viable candidates who can win a general election contest. So voters should be willing to provide them with more ideological freedom than they would be willing to provide to a non-incumbent. The results indicate that non-incumbents are punished more than incumbents for ideological distance from the median voter. The coefficient for ideological proximity is -0.082 and the coefficient for the interaction term is 0.088. This means that the slope for non-incumbents is -0.082 but for incumbents it is 0.006 (essentially zero). For every one point of ideological distance between a candidate and the median voter, a non-incumbent can expect to lose about 8.2 percent of the total vote share, whereas an incumbent would not be expected to lose any votes. If we consider only non-incumbent candidates, 26 percent of the races were decided by 8 percentage points or less. That means that one-quarter of the non-incumbents candidates' electoral fortunes could have been changed with a single ideological point. Figure 5.5 illustrates the conditional effect that incumbency has in primary elections.

Figure 5.5: Conditional Effect of Incumbency in Primary Elections



The solid line in figure 5.5 represents the conditional effect of incumbency across all values of ideological proximity. The vertical axis measures the value of the effect, and the horizontal axis measures ideological proximity. The dashed lines represent the upper and lower 95 percent confidence bounds. The effect meets classical requirements of statistical significance anywhere that all three lines are on the same side of the zero position (which is referenced with the horizontal line).⁶ The conditional effect of incumbency meets these requirements of statistical significant across all values of ideological proximity.

Figure 5.6 depicts the difference in vote share that can be expected based on ideological proximity and incumbency. The figure clearly shows that incumbents have more freedom, in regards to their ideological location, than do non-incumbents. Both candidate types enjoy a healthy vote share while they are perfectly aligned with their party's median voter. However, if the same two candidates locate farther away from the median voter, the advantage enjoyed by incumbents is quickly revealed.

There are several reasons that could help explain why incumbents are punished less severely than non-incumbents when there is distance between them and the median voter. Voters may choose whom to vote for based on strategic considerations. For example, voters could see incumbents as stronger candidates who have a better chance of winning the general election than non-incumbents. If this were the case, then voters may decide that a candidate who is a little further away from them (ideologically speaking), but has a good chance of winning the general election, is a

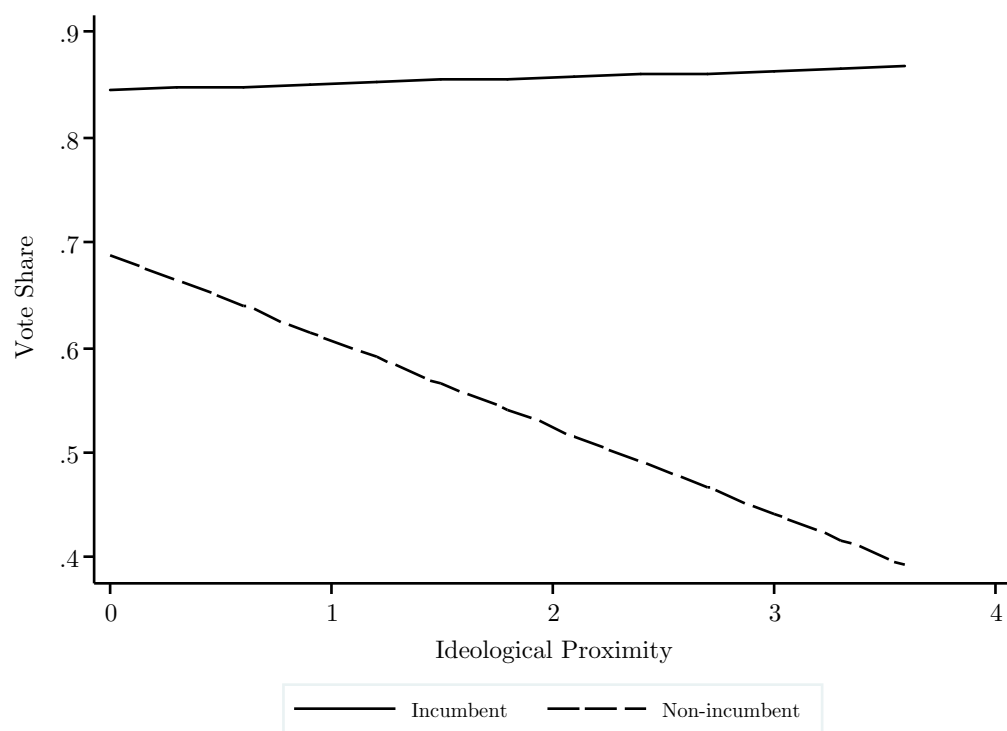
⁶The conditional effect of incumbency was calculated with the following equation:

$$\frac{\partial \text{Vote Share}}{\partial \text{Incumbency}} = \beta_1 + \text{Proximity} \beta_3$$

The upper and lower confidence bounds were calculated using the standard error recommended by Brambor, Clark and Golder (2006). The standard error is:

$$\sigma_{\frac{\partial \text{Vote Share}}{\partial \text{Incumbency}}} = \sqrt{[var(\beta_1)] + [Proximity^2 * var(\beta_3)] + [2 * Proximity * cov(\beta_1 \beta_3)]}$$

Figure 5.6: Primary Election Vote Share: Incumbents and Non-incumbents



better choice than a candidate who is closer but has a much lower chance of winning the general election (Burden, 2005; Burden and Jones, 2006; Stone, Rapoport and Abramowitz, 1992).

As plausible as this sounds, some scholars doubt that any sizable number of voters actually engage in strategic voting. Abramowitz, McGlennon and Rapoport (1981) argued that the notion of strategic voting assumes too much sophistication on the part of the voters and is simply unrealistic. Cox (1997) showed that the opportunity and conditions that support strategic voting are fragile. However, there are still opportunities for strategic voting in U.S. elections. For example, third-party supporters may be concerned that voting for their most preferred candidate will be a wasted vote (Abramson et al., 1995; Burden and Jones, 2006). Burden and Jones (2006) found that strategic voting among third-party supporters was as low as 16 percent among George Wallace (1968) supporters and as high as 81 percent among Ralph Nader (2000) supporters. That being said, this only represented 2 percent and 13 percent of the entire electorate, respectively. Moreover, 13 percent was twice as large as any of the other estimates (Burden and Jones, 2006, page 5). During Presidential elections with a third party candidate, about 5 percent of the electorate engages in strategic voting.

If the vast majority of voters do not choose candidates based on strategic considerations, then the fact that incumbents are much less likely to face a competitive primary election than non-incumbents could explain why incumbents appear to be punished less severely than non-incumbents. As discussed at the end of the previous chapter, from 2000 through 2008 only 50 percent of Senate incumbents had any primary competition. On the other hand, 82 percent of non-incumbent Senate candidates faced primary competition. If we set the threshold for strong competition at 60 percent or less of the total vote share, then 49 percent of non-incumbent Senate candidates had strong competition, but only 5 percent of incumbents had

strong competition. If a candidate is running alone in an election, then there is no threat that another candidate will position him or herself closer to the median voter, and the candidate will have much less incentive to consider the electorate's ideology. The aggregate effect would be a weaker relationship between ideological distance and candidate vote share. The fact that so many incumbents do not have to worry about viable challengers could explain the comparatively mild slope for incumbents displayed in figure 5.6.

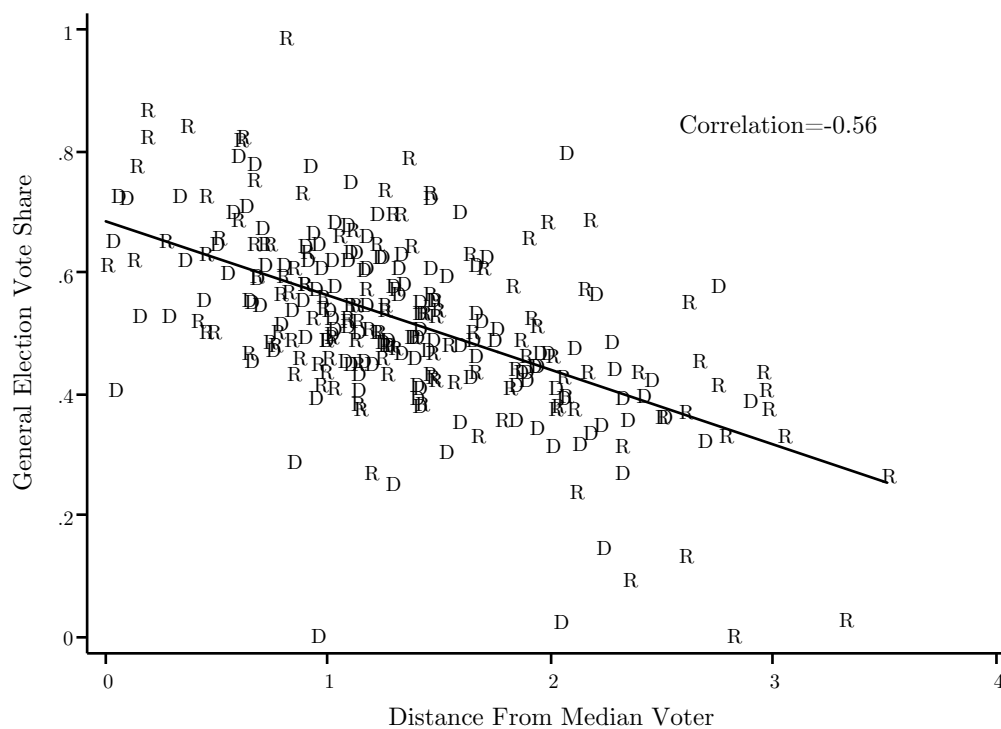
Summary of Primary Elections Although very little research has studied the effect of ideological proximity in primary elections, there are reasons to believe that candidate vote share is affected by their distance from the median voter in primaries. This analysis provides evidence to support that belief. Candidate vote share is negatively related to ideological distance; however, not all candidates are affected equally. I found that non-incumbents pay a much greater price for diverging from the median voter, than do incumbents. In fact, there is some evidence to suggest that—in primary elections—incumbent vote share is not affected at all by ideological proximity.

General Elections

In this section I move on to an analysis of general elections. To get a sense of how a candidate's ideological distance from the general median voter affects his or her vote share, I correlated candidate distance from the general median voter with the candidates general election vote share. The results are displayed in figure 5.7.

There is a clear negative relationship between ideological distance and vote share. The relationship between votes and ideological distance is stronger in general elections than in primary elections (-0.46 in for primaries, and -0.56 for general elections). Candidates who have a great distance between their ideology and the general median

Figure 5.7: General Election Vote Share



voter's ideology must be concerned that their distance could cost them the election.

Many of the assumptions and expectations that characterized the analysis of primary elections are also relevant for general elections. Obviously the first hypothesis—that a candidate's vote share is negatively related to his or her distance from the median voter—is expected for general elections. Candidates should obtain relatively more votes if they are relatively closer to the general median voter.

I also expect that incumbency will positively affect vote share. Incumbents should do better than non-incumbents because of name recognition and other things associated with incumbency advantage. That being said, the effect should not be as strong in the Senate as it would in the House, since Senate incumbents typically face higher quality candidates than do House incumbents. In the analysis of primary elections, I found that candidate spending was positively related to vote share. I expect that, in general elections, a candidate who spends a large proportion of the total campaign spending will also have a larger vote share.

The second hypothesis only applies to general elections and was not incorporated into the primary election analysis. Here I argue that candidates will get punished by the general electorate for taking extreme positions during the primary campaign. I operationalized this using a variable labeled "Initial Distance." This is the distance between the candidate primary ideology and the general median voter ideology. The idea here is to see if candidates are punished in the general election for positioning themselves too far from the general median voter during the primary election campaign. Candidates who portrayed themselves as being extreme during the primary campaign should have more trouble during the general election. Even if an extreme candidate tries to moderate his or her position to appeal to the general electorate, the public may not buy the change. This is precisely what happened to Sharron Angle (see the discussion at the beginning of Chapter 4). Table 5.4 contains the variable measures and their expected relationship with general election vote share.

Table 5.4: Variable Measures and Expectations - General Elections

Variable	Explanation	Expected Direction
Ideological Proximity	Absolute value of Candidate Ideology minus General Electorate Ideology	–
Incumbent	1=Incumbent, 0=Non-incumbent	+
Spending	Candidate spending divided by the total spending of all the candidates	+
Initial Distance	Absolute value of Candidate Primary Ideology minus General Electorate Ideology	–
Competition	Spending gap: Difference between candidate who spent the most and other candidates	+

General Election Results

The general election results are displayed in table 5.5. The model in table 5.5 is the standard additive model and accounts for 62 percent of the variance in general election vote share. As was the case for primary elections, the general election results indicate that the overall spatial model of vote share is correct.

Table 5.5: Senate General Election Vote Share 2000-2008

Variable	Coefficient	Robust S.E.
Ideological Proximity	-0.047*	0.01
Initial Distance	-0.020*	0.01
Incumbent	-0.016	0.02
Spending	0.216*	0.03
Competition	0.095*	0.02
Constant	0.441*	0.03
Adjusted R ²	0.622	
Number of Observations	235	

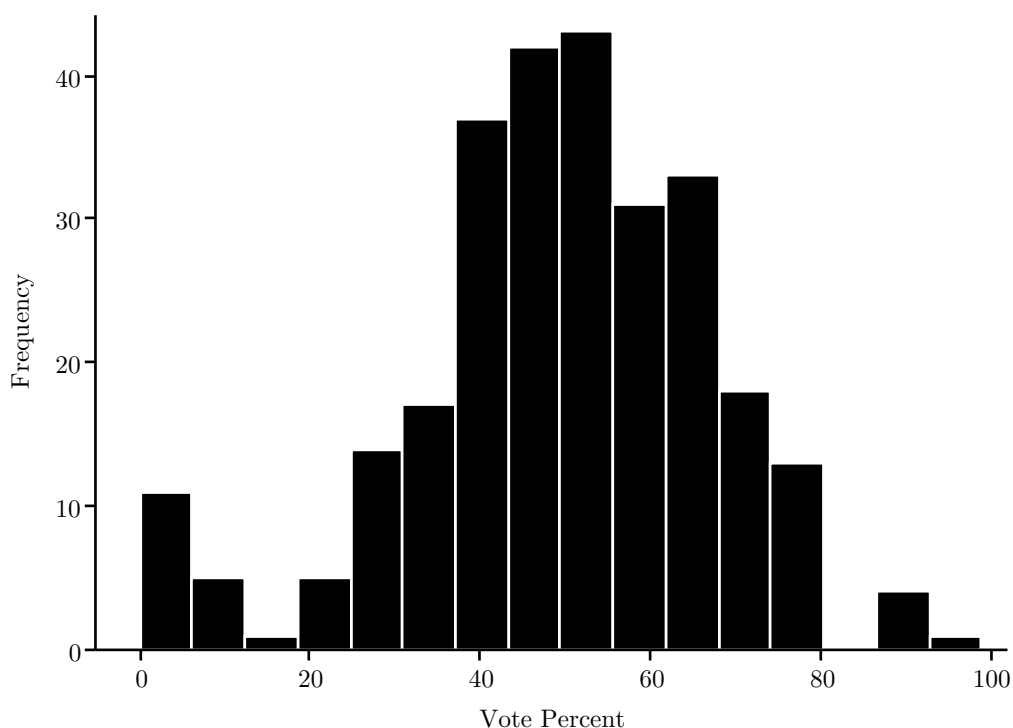
Significance Levels: *= $p \leq .05$ two-tailed test.

Standard errors are clustered by election.

All other things being equal, a candidate whose ideology is closer to the general

electorate median voter receives more votes than a candidate whose ideology is a greater distance from the median voter. The coefficient for ideological proximity (-0.047) indicates that every one point of distance between a candidate and the general median voter translates into a 4.7 percent difference in vote share. The ideological proximity variable ranges from slightly higher than zero to 3.5. Ideological positioning and closing the gap between the candidate and the median voter could easily be the difference between winning an election and losing an election. In fact, if you look at the density in figure 5.8 you can see that nearly 1/3 of the elections in the sample are close enough that a single ideological point could have changed the outcome of the election.

Figure 5.8: Percent of Votes Received by General Election Candidates



As I also found in the analysis of primary elections, candidates who spent a relatively large amount of money during the general election received more votes

than candidates who spent less money. The coefficient for spending is 0.216. The spending variable is measured as the candidate's proportion of all candidate election spending, and ranges from zero to one. Thus, a candidate who spent about 40 percent of all candidate spending would be expected to receive about 2.2 percent fewer votes than if that same candidate spent 50 percent of all candidate spending.

Unlike the analysis of primary elections, incumbency did not increase candidate vote share, whereas competition did have the expected effect on vote share. When controlling for ideological proximity, initial distance, spending, and competition, incumbents did not receive more votes than non-incumbents. On the other hand, candidates who ran in competitive races received fewer votes than if the election had been uncompetitive.

Testing For Punishment The second hypothesis is only relevant for general elections. Here I argued that candidates would be punished and receive fewer votes in the general election if their primary ideology was too extreme. This is because they would be seen as untruthful, or a flip-flopper. The results in table 5.5 reveal that candidates are punished in the general election for extreme ideology during the primary campaign. The variable "Initial Distance" is the distance between candidate primary ideology and the general median voter. The negative coefficient supports the expectation. A coefficient of -0.020 means that every one point of distance between a candidate's primary ideology and the general median voter's ideology translates into a difference of two percent of the vote share—regardless of the candidate's general campaign ideology. Since, the "Initial Distance" variable ranges from 0.03 to 3.23, and is normally distributed with a mean of 1.36 and a standard deviation of .71, enough votes could easily be affected to change the outcome of an election. Put simply: if a candidate is too extreme during the primary campaign he or she may lose the general election.

That being said, it is reasonable to assume that the general electorate would not have knowledge of the candidate's primary ideology without the candidate's opponent bringing it to their attention. To test for this, I interacted Initial Distance with spending. Rather than introducing the opponent's spending into the model and interacting it with Initial Distance, I used the candidate's spending. This is because spending is measured as the candidate's proportion of all candidate spending in a race, and introducing opponent spending would be perfectly collinear to spending. Thus, I expect that the interactive effect will be positive. Specifically, the negative affect of Initial Distance will be mitigated if a candidate spends relatively more money on the campaign. The first model in table 5.6 is a test of this hypothesis.

Table 5.6: Senate General Election Vote Share 2000-2008

Variable	Coefficient (Robust S.E.)	Coefficient (Robust S.E.)
Ideological Proximity	-0.044* (0.01)	0.000 (0.02)
Initial Distance	-0.038* (0.02)	0.032 (0.02)
Incumbent	-0.014 (0.02)	-0.010 (0.02)
Spending	0.168* (0.05)	0.186* (0.03)
Competition	0.106* (0.02)	0.114* (0.02)
Initial Distance X Spending	0.031 (0.03)	
Proximity X Initial Distance		-0.034* (0.01)
Constant	0.461* (0.03)	0.382* (0.03)
Adjusted R ²	0.614	0.626
Number of Observations	235	235

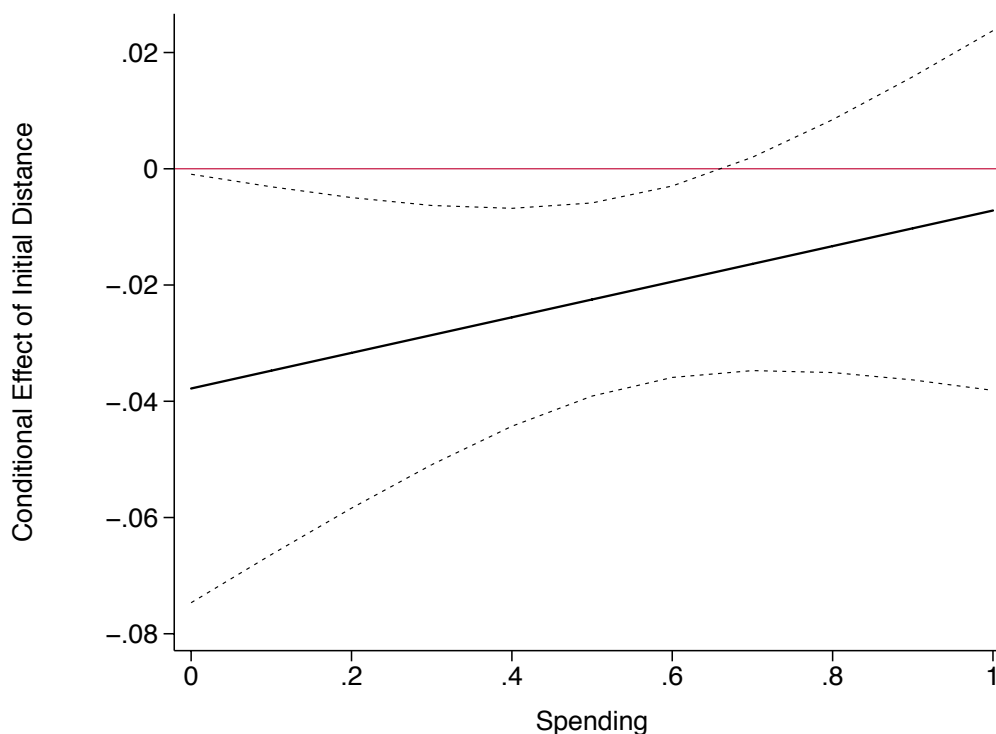
Significance Levels: $*=p \leq .05$ two-tailed test.

Standard errors are clustered by election.

Nearly all of the variable effects in the first model in table 5.6 are the same as they were in the table 5.5. However, can the effect of initial distance be mitigated by candidate spending? The coefficient for initial distance is -0.038 and statistically significant. The coefficient for the interaction between initial distance and spending is 0.031 and is in the expected direction. Figure 5.9 illustrates the conditional effect of initial distance across all values of candidate spending.

To gauge the effect of Initial Distance we just need to impute different values of spending. The values for spending range from 0 to 1. The effect of Initial Distance for a candidate who did not spend any money on the campaign (i.e. spending = 0) would be $-.030$. The average candidate spent about .5, or 50 percent of all spending, the effect of Initial Distance for this candidate would be $-.024$. For a candidate with a spending value of 1 (100 percent of all spending by candidates) the effect of Initial Distance would be $-.018$.

Figure 5.9: Conditional Effect of Initial Distance by Spending



The solid line is the effect and the dashed lines are the upper and lower 95 percent confidence bounds (the standard error used to create the confidence bounds is described in Brambor, Clark and Golder (2006) and here in foot note 6). The effect meets classic tests of statistical significance anywhere that all three lines are on one side of the zero value. The conditional effect of initial distance is significant across approximately 60 percent of the values of spending. This includes about 53 percent of all the candidates in the study.

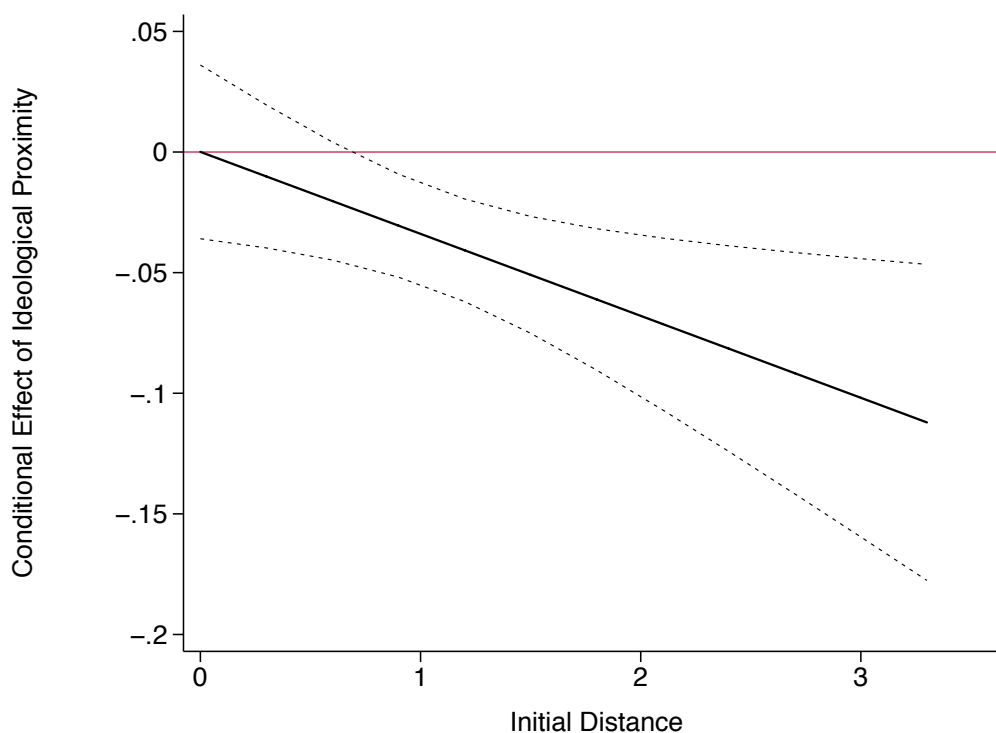
As expected a candidate's vote share is negatively related to his or her initial distance. However, the effect is not as strong for candidates who spend a lot of money during the general election campaign. That being said the difference across the values of spending where the effect is statistically significant is not very strong. For example, take two candidates, the highest spending value where the effect is still significant (candidate spending=0.65) and a low spending candidate (candidate spending=0.1), both of who were pretty extreme during their primary campaigns (initial distance=3). The cost in vote share that the high spending candidate would pay as a result of his or her primary ideology would be about 9.4 percent. However, the low spending candidate's vote share costs would be about 11.1 percent.

Although the negative effect associated with a candidate's initial distance is slightly reduced if the candidate spends enough cash, a candidate's initial distance should also affect the candidate's ability to sell their new moderate message to the public. No matter how closely aligned a candidate appears to be with the general electorate, it will not be easy for the voters to swallow if the candidate was very extreme during the primary campaign. More precisely, the negative effect of ideological proximity should be larger for candidates whose initial distance was relatively large, than it is for candidates whose initial distance was relatively small. The second model in table 5.6 tests for this interactive effect.

The second model in table 5.6 includes an interaction term between ideological

proximity and initial distance. The main effect for initial distance is in the expected direction, but does not reach classic requirements of statistical significance. On the other hand, the main effect for ideological proximity is zero. That being said the interaction term between initial distance and ideological proximity is significant. Moreover, if we analyze the conditional effect for ideological proximity across all the values of initial distance, we would see that the effect is strong (this effect is displayed in figure 5.10).

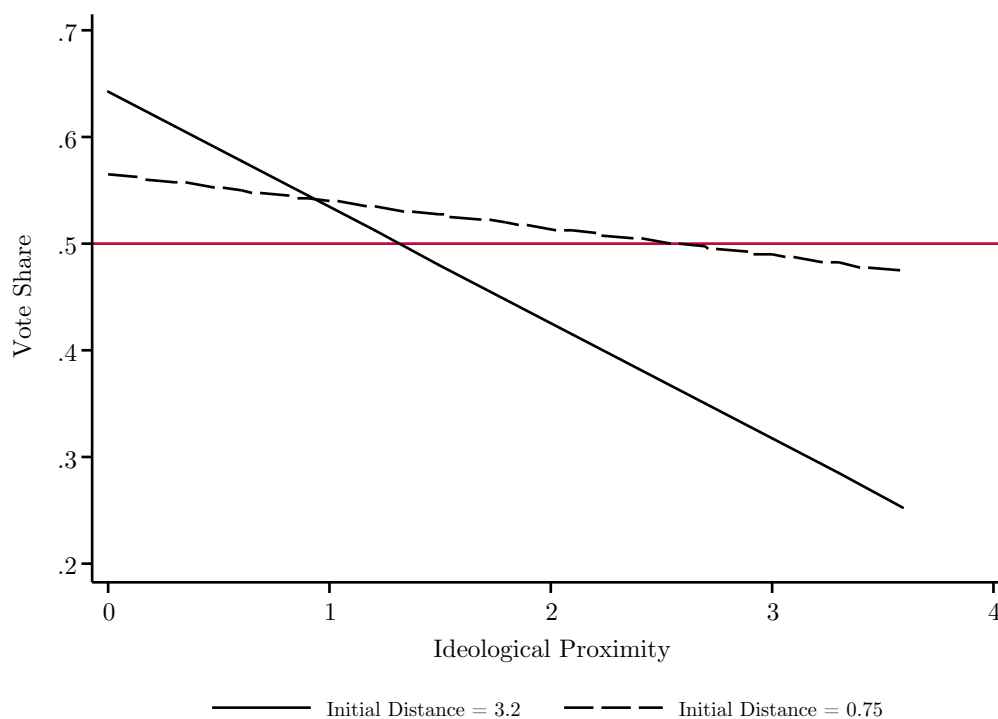
Figure 5.10: Conditional Effect of Initial Distance by Spending



The solid line is the conditional effect of ideological proximity across all values of initial distance, while the dashed lines represent the upper and lower 95 percent confidence bounds. The conditional effect of ideological proximity is significant for values of initial distance that are approximately .75 and higher. This constitutes about 80 percent of the total cases. Ideological proximity's effect on a candidate's vote

share ranges from approximately -0.025 for candidates whose initial distance is 3/4 of a point away from the general electorate's median voter, to -0.110 for candidates whose initial distance is 3.2 points away from the general median voter. That means that the negative effect of ideological distance is more than 4 times stronger for candidates with extreme primary ideologies, than it is for candidates with moderate primary ideologies. To get a better idea how dramatically this can affect a candidate's electoral fortunes, figure 5.11 depicts how candidate vote share responds to the interactive effect between ideological proximity and initial distance.

Figure 5.11: Interactive Effect of Ideological Proximity and Initial Distance on Candidate Vote Share



Candidate expected vote share is plotted along the vertical axis, and ideological proximity is plotted along the horizontal axis. The solid line represents a candidate whose primary ideology is extreme. The dashed line represents a candidate whose primary ideology was much more moderate. The slope of the lines illustrate the

loss in vote share that each candidate would be expected to endure based on their ideological proximity. The red horizontal line references the 50 percent vote share position—the point where candidates go from winning the election to losing. It is clear from figure 5.11 that the negative effect of ideological proximity on candidates whose primary ideology was extreme is much stronger than moderate candidates. The solid line representing extreme candidates (initial distance=3.2) quickly plunges below the 50 percent vote share line. But the dashed line representing moderate candidates (initial distance=0.75) is much flatter, and provides moderate candidates with some wiggle room in regards to their general election ideological proximity. For example, if we took a moderate candidate whose initial distance was $\frac{3}{4}$ of a point away from the general median voter and moved him or her across the entire range of ideological proximity (0 to 3.6) we would see a difference in vote share of about 9 percent. That is to say that a moderate candidate is expected to received 2.5 percent fewer votes for every additional point of ideological proximity. On the other hand, an extreme candidate's (initial distance=3.2) difference in vote share across the entire range of ideological proximity would be more than 39 percent. That equates to 10.8 percent fewer votes for every additional point of ideological proximity. Candidates whose primary ideology was far from the general median voter need to be extremely sensitive to their ideological location during the general election campaign.

In figure 5.11, the extreme candidate's vote share drops below the 50 percent mark at an ideological proximity of 1.3, whereas the moderate candidate drops below the 50 percent mark at an ideological proximity value of about 2.6. So the moderate candidate has 1.3 more points of ideological wiggle room than does the extreme candidate.

I want to discuss this specific section of candidates (those with an ideological proximity between 1.3 and 2.6) further. The number of candidates whose general election ideological proximity falls between these two points is a bit more than 40

percent. So this represents a significantly large group of candidates. Of the candidates whose ideological proximity was between 1.3 and 2.6 points away from the median voter, 43 percent lost the general election and 57 percent won the general election. The mean initial distance of those who ended up winning the election was 1.17, while the mean initial distance value for those who ended up losing the election was 1.68. The candidates who lost, on average, had a primary ideology that was more than half a point farther away from the general median voter, than candidates who won.

We can also think about this from another direction, among candidates whose ideological proximity is between 1.3 and 2.6, those candidates whose primary ideology was extreme (initial distance greater than or equal to 2) only won 21 percent of the time and lost 79 percent of the time in the general election. However, candidates with the same ideological proximity (between 1.3 and 2.6), but whose primary ideology was moderate (specifically, an initial distance of less than 2) won 67 percent of the time and only lost 33 percent of the time in the general election.

Clearly, initial distance conditions the effect that ideological proximity has on vote share. Candidates whose primary ideology was fairly moderate (less than 2) won 3 times as often as candidates whose primary ideology was extreme (greater than and equal to 2).

Summary Overall the spatial model of vote choice is correct. Candidate vote share is negatively affected by ideological proximity. This is true in both primary and general elections: candidates must take into account the location of the median voter if they want to win. However, this negative effect is not constant, it is conditioned by other factors. During primary campaigns, I found that incumbency affected ideological proximity. Incumbents had a great deal of ideological freedom, and were able to locate themselves anywhere they wanted without losing votes.

I also found that candidates are punished in the general election for the ideological

positions they take during the primary campaign. Candidates whose primary ideology was far from the general median voter received fewer votes in the general election, than if their primary ideology had been closer to the general median voter. I also found that a candidate's initial distance has a strong negative effect on the candidate's ideological proximity. If a candidate was extreme during the primary campaign and wants to win the general election, he or she has little choice but to align very closely with the general median voter—any distance between the candidate and the median voter will cost the candidate a large amount of votes, and possibly the election.

Chapter 6

Summary and Discussion

The idea of candidates shifting their ideology to align with the relevant electorate is not new. Nixon told Bob Dole that he needed to run like hell to the right to secure the Republican nomination, and then run like hell back to the center for the general election. Recently Mitt Romney's senior campaign advisor, Eric Fehrnstrom, was asked if he thought that Romney was forced to adopt conservative positions because of the Republican primary and if that would hurt his standing with moderates in the general election. Fehrnstrom didn't think it would hurt Romney. In fact, he claimed that you can hit a reset button after the primary election. He said that a candidate's positions are like an "Etch a Sketch" (the once popular children's toy), claiming that after the primary campaign is finished, you can shake it up and start all over again. Of course, saying this on a nationally-syndicated talk show was not a good idea and the Romney campaign had to endure criticism; but that doesn't mean that Fehrnstrom was wrong. In fact, politicians and candidates often accuse opponents of changing, or flip-flopping, their stance on one issue or another depending on public opinion. This is meant to indicate that the candidate is either unreliable or dishonest. However, I found that a majority of candidates do in fact engage in ideological shifting—and it works.

Does this mean that all candidates are dishonest? Not necessarily. Sharron Angle never lied outright (as least not in this case). She simply stopped talking about issues that painted her as a staunch conservative. Candidates do not have to completely change their stances to shift their ideological position; they just need to focus on issues that portray them differently. This does not mean that candidates have to blatantly lie, but it does mean that they are affected by the median voter position, and adapt their ideology accordingly.

The fact that candidates do not have to lie outright to misrepresent their ideology is probably not comforting to many people. It is not unreasonable to ask that policy makers tell voters the types of policies they really want to enact. However, the two-stage electoral process that is currently in place in the U.S. encourages candidates to adapt their ideological position based on the median voter position. In doing so, it encourages candidates to misrepresent their true ideological position.

Although we all know that candidates engage in this sort of behavior, the challenge has been measuring the behavior. One of the most important results of this research was finding a strategy that solved this challenge. By utilizing the revealed preferences of PACs through their donations I was able to obtain two ideology measures for each Senate candidate—one for the primary election campaign, and another for the general election campaign. With these separate measures I was able to calculate how much ideological shifting (or flip-flopping) occurs among Senate candidates.

As it turns out, Senate candidates do engage in quite a bit of ideological shifting between the primary and general election campaigns. More than 62 percent of Senate candidates shifted toward the middle following the primary election. More than 37 percent shifted more than one standard deviation of their primary ideology after the primary election. Twenty-eight percent of all Senate candidates shifted at least two standard deviations towards the middle. Moreover, I found that the variations in candidate shifting are predictable.

I found that the distance between the two relevant median voters is important. In states that are highly polarized, candidates will have to shift greater distances than in states with less polarization. This is true regardless of how far from the median voter the candidate was positioned. That being said, candidates whose ideology was extreme during the primary campaign always have to shift toward the middle following the primary election. But candidates whose ideology was moderate only had to move if there was a large distance between the median voters.

The effect of candidate ideological positioning on candidate vote share was the subject of the final chapter. Because I was able to recover two ideological positions for each candidate (one during the primary campaign and another during the general election campaign), I was able to test how ideological positioning affects a candidate's electoral fortunes in both the primary and general elections. Overall, I found that candidates need to be responsive to the relevant electorate. However, incumbents have virtually unlimited freedom when it comes to ideological positioning during the primary campaign. Whereas non-incumbents need to keep the position of the primary median voter in mind if they want to win their party's nomination.

Although incumbents are given total ideological freedom during the primary campaign, I found no evidence to suggest that they are given this freedom during the general election. What I did find is that candidates are punished in the general election if their primary ideology was too extreme. A candidate's primary ideology affected them in two ways. First, the distance between a candidate's primary ideology and the ideology of the general electorate's median voter negatively affected the candidate's vote share. Regardless of how closely a candidate aligns with the median voter during the general election campaign, the candidate will lose votes if his or her primary ideology was extreme.

A candidate's primary ideology also affects the way voters judge him or her in regards to general election ideology. I found that candidates are punished much more

severely for every point of distance between them and the median voter, if their primary ideology was extreme, than they are punished if their primary ideology was moderate. Candidates whose primary ideology was moderate have a lot of freedom in regards to their general election ideology.

Future Research Future research should explore ideological shifting among House candidates. Although there is less information about House candidates, if good measures of House District median voter positions could be recovered (including each party's district-level median voters), then it would be feasible. Aside from recovering the median voter positions, another challenge is that House elections are much less competitive than Senate elections. However, the relationships that I found in this analysis should be present in House elections that have genuine competition.

That being said, ideological shifting should be explored among all elected offices that engage in an electoral process that includes both a primary election and a general election. Candidates who face this two-stage election process should be attracted to the median voter during the relevant stage. Any differences between these median voters' positions means that the candidates have some incentive to shift their ideological positions between elections. If candidates do indeed engage ideological shifting, we should be able to measure it between elections.

Future research should also focus on adding more years. It takes a great deal of work to collect, rework, clean, and reshape the data before any models can be estimated to recover candidate and PAC ideology. Not to mention that the models themselves take anywhere from several days to a week or more to run. But even taking all of that work into account, an eight year time period from 2000 through 2008 is simply not a wide enough slice to ensure that the relationships revealed here have a consistent presence within the election process. So more years and election cycles need to be analyzed.

Aside from the work involved with recovering candidate and PAC ideology, the data needed to estimate sub-state measures of a state's democratic and republican median voter positions, made it difficult to include more years for the Senate. It would be extremely difficult to do this for the House, because the number of responses for most districts is simply too low. Moreover, the National Annenberg Election Study (which is the data that I used to estimate sub-state measures of the electorate's ideology) was unable to administer a 2012 election survey. However, as new data sources arise so may opportunities to collect these median voter positions.

Other ways to measure candidate ideological shifting should also be explored. Advancements in textual analysis could allow researchers to utilize candidate speeches, tweets, etc. to test for the presence of shifting. There are a large number of ways to do this, but clear differences in the types of issues the candidates focus on, or even the candidates' wording choices, could be indications of candidates attempting to moderate their ideology following a primary that induced them to take a relatively extreme primary ideological platform.

Future research should also continue to analyze the amount of punishment that candidate primary ideology causes in the general election. The addition of more years will allow researchers to see if candidates have always been punished in the general election for an extreme primary ideology. Developing new ways to measure candidate ideological shifting will test the robustness of the results uncovered here.

Analyzing ideological shifting in the House and in other elective offices will provide an opportunity to test for the presence of candidate punishment within the American electoral system. Do Gubernatorial candidates, Presidential candidates, or any official who is elected based on a two-stage primary/general election, face the same punishment in the general election that Senators endure?

Conclusion To my knowledge, no other research has attempted to recover multiple measures of candidate ideology during a single election cycle. Furthermore, no other research has tried to empirically investigate candidate ideological shifting, nor its effect on election outcomes. However, this is important to the health of our democracy. Here I found evidence that candidates are encouraged to misrepresent their ideological positions to the voters. In fact, the encouragement is inherent in the two-stage election process that characterize most U.S. elections.

Although I did find an incentive for candidates to shift their ideological positions between the primary and general election campaigns (and that candidates actually do engage in ideological shifting), I also found that candidates are punished in the general election for the positions that they take during the primary campaign. So candidates may be shifting their ideological position between the primary and general election campaigns, but the voters have some knowledge that this shifting is occurring. Moreover, there is also evidence that they are holding the candidates accountable for their primary ideological positions.

This was an initial look at candidate ideological shifting and its affect on the electoral process. This work is far from done. Scholars should continue to explore candidate behavior within the two-stage election process. Then we can better understand how widespread is candidate ideological shifting, and the implications of that for our electoral system.

Chapter 7

Appendix: Model Code

```

model {
  for(i in 1 : Candidates){
    for(j in 1 : PACs){
      Y[i,j] ~ dbern(prob[i,j])
      logit(prob[i,j]) <- (-b[j] * ((PACs[j] - Candidates[i])2)) + inprod(X[i, 1 : 5], beta[1 : 5]) + a[j]
    }
  }
  for(i in 1 : Liberal Candidate){
    C[i] <- (-1.3)
  }
  for(i in 1 : Conservative Candidate){
    C[i] <- (1.3)
  }
  for(i in 1 : I){
    C[i] ~ dnorm(0, 1)
  }
  for(j in 1 : Liberal PAC){
    P[j] ~ dnorm(0, 1)T(-1000, 0)
  }
  for(j in 1 : Conservative PAC){
    P[j] ~ dnorm(0, 1)T(0, 1000)
  }
  for(j in 1 : J){
    P[j] ~ dnorm(0, 1)
  }
  for(i in 1 : 5){
    bx[i] ~ dnorm(0, 1)
  }
}

```

Bibliography

- Abramowitz, Alan, John McGlennon and Ronald Rapoport. 1981. "A Note on Strategic Voting in a Primary Election." *Journal of Politics* 43(3):899–904.
- Abramson, Paul, John Aldrich, Phil Paolino and David Rohde. 1995. "Third-Party and Independent Candidates in American Politics: Wallace, Anderson, and Perot." *Political Science Quarterly* 110(3):349–367.
- Aldrich, John and David Rohde. 2000. The Consequences of Party Organization in the House: The Role of the Majority and Minority Parties in Conditional Party Government. In *Polarized Politics: Congress and the President in a Partisan Era*, ed. Jon Bond and Richard Fleisher. Washington D.C., USA: CQ Press.
- Ansolabehere, Stephen and James Snyder. 2000. "Valence Politics and Equilibrium in Spatial Election Models." *Public Choice* 103:327–336.
- APSA. 1950. "Summary of Conclusions and Proposals." *American Political Science Review* 44(3):1–14.
- Aranson, Peter and Peter Ordeshook. 1972. Spatial Strategies for Sequential Elections. In *Probability Models of Collective Decision Making*, ed. Richard Niemi and Herbert Weisberg. Columbus, OH, USA: Merrill.
- Bartels, Larry. 1988. *Presidential Primaries and the Dynamics of Public Choice*. Princeton, NJ, USA: Princeton University Press.
- Berry, William, Evan Ringquist, Richard Fording and Russell Hanson. 1998. "Measuring Citizen and Government Ideology in the American States, 1960-1993." *American Journal of Political Science* 42(1):327–348.
- Black, Duncan. 1958. *The Theory of Committees and Elections*. Cambridge, UK: Cambridge University Press.
- Bonica, Adam. 2010. Estimating Ideological Positions of Candidates and Contributors from Campaign Finance Records. Paper presented at the 2010 Annual National Conference of the Midwest Political Science Association.
- Brady, David, Hahrie Han and Jeremy Pope. 2007. "Primary Elections and Candidate Ideology: Out of Step with the Primary Electorate?" *Legislative Studies Quarterly* 32(1):79–105.

- Brambor, Thomas, William Roberts Clark and Matt Golder. 2006. "Understanding Interaction Models: Improving Empirical Analysis." *Political Analysis* 14(1):63–82.
- Burden, Barry. 2005. "Minor parties and strategic voting in recent U.S. presidential elections." *Electoral Studies* 24:603–618.
- Burden, Barry, Gregory Caldeira and Tim Groseclose. 2000. "Measuring the Ideologies of U.S. Senators: The Song Remains the Same." *Legislative Studies Quarterly* 25(2):237–258.
- Burden, Barry and Philip Jones. 2006. Strategic Voting in the United States. Paper prepared for the Plurality and Multiround Elections Conference at the Université de Montréal.
- Caldeira, Gregory and Samuel Patterson. 1982. "Contextual Influences on Participation in U.S. State Legislative Elections." *Legislative Studies Quarterly* 7(3):359–381.
- Canes-Wrone, Brandice, David Brady and John Cogan. 2002. "Out of Step, Out of Office: Electoral Accountability and House Members' Voting." *American Political Science Review* 96(1):127–140.
- Casella, George and Roger Berger. 2002. *Statistical Inference*. 2nd ed. Pacific Grove, CA, USA: Thomson Learning, Inc.
- Cherry, Todd and Stephan Kroll. 2003. "Crashing the Party: An Experimental Investigation of Strategic Voting in Primary Elections." *Public Choice* 114(3/4):387–420.
- Clinton, Joshua, Simon Jackman and Douglas Rivers. 2004. "The Statistical Analysis of Roll Call Data." *American Political Science Review* 98(2):355–370.
- Clouse, Clayton. 2011. "Changes in Congressional Turnout, 1972-2006." *Journal of Elections, Public Opinion, and Parties* 21(4):453–472.
- Coleman, James. 1971. "Internal Processes Governing Party Positions in Elections." *Public Choice* 11(1):35–60.
- Coleman, James. 1972. The Positions of Political Parties in Elections. In *Probability Models of Collective Decision Making*, ed. Richard Niemi and Herbert Weisberg. Columbus, OH, USA: Merrill.
- Cox, Gary. 1997. *Making Votes Count: Strategic Coordination in the World's Electoral Systems*. New York, NY, USA: Cambridge University Press.
- Cox, Gary and Eric Magar. 1999. "How Much is Majority Status in the U.S. Congress Worth?" *American Political Science Review* 93(2):299–309.
- Cox, Gary and Michael Munger. 1989. "Closeness, Expenditures, and Turnout in the 1982 U.S. House Elections." *American Political Science Review* 83(1):217–231.

- DiNitto, Andrew and William Smithers. 1972. "The Representativeness of the Direct Primary: A Further Test of V.O. Key's Thesis." *Polity* 5(2):209–224.
- Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York, NY, USA: Harper and Row.
- Duverger, Maurice. 1954. *Political Parties, Their Organization and Activity in the Modern State*. London, UK: Methuen & Company.
- Endersby, James and Michael Munger. 1992. "The Impact of Legislator Attributes on Union PAC Campaign Contributions." *Journal of Labor Research* 13(1):79–97.
- Enelow, James and Melvin Hinich. 1984. *The Spatial Theory of Voting: An Introduction*. Cambridge, UK: Cambridge University Press.
- Erikson, Robert, Gerald Wright and John McIver. 1993. *Statehouse Democracy: Public Opinion and Policy in the American States*. Cambridge University Press.
- Fiorina, Morris. 1981. *Retrospective Voting in American National Elections*. New Haven, CT, USA: Yale University Press.
- Geer, John. 1988. "Assessing the Representativeness of Electorates in Presidential Primaries." *American Journal of Political Science* 32(4):929–945.
- Goddard, Taegan. 2010. "Angle Takes Legal Action After Reid Re-Publishes Site." **URL:** http://politicalwire.com/archives/2010/07/06/angle_takes_legal_action_after_reid_re-publishes_site.html
- Grier, Kevin and Michael Munger. 1986. "The Impact of Legislator Attributes on Interest-Group Campaign Contributions." *Journal of Labor Research* 7(4):349–361.
- Grier, Kevin and Michael Munger. 1991. "Committee Assignments, Constituent Preferences, and Campaign Contributions." *Economic Inquiry* 29:24–43.
- Grier, Kevin and Michael Munger. 1993. "Comparing Interest Group PAC Contributions to House and Senate Incumbents, 1980-1986." *The Journal of Politics* 55(3):615–643.
- Grofman, Bernard. 2004. "Downs and Two-Party Convergence." *Annual Review of Political Science* 7:25–46.
- Groseclose, Tim, Steven Levitt and James Snyder. 1999. "Comparing Interest Group Scores across Time and Chambers: Adjusted ADA Scores for the U.S. Congress." *American Political Science Review* 93(1):33–50.
- Hall, Richard and Frank Wayman. 1990. "Buying Time: Moneyed Interests and the Mobilization of Bias in Congressional Committees." *American Political Science Review* 84(3):797–820.

- Heckman, James and James Snyder. 1997. "Linear Probability Models of the Demand for Attributes with an Empirical Application to Estimating the Preferences of Legislators." *RAND Journal of Economics* 28(0):S142–S189.
- Hill, Kim and Jan Leighley. 1993. "Party Ideology, Organization, and Competitiveness as Mobilizing Forces in Gubernatorial Elections." *American Journal of Political Science* 37(4):1158–1178.
- Hill, Kim, Stephen Hanna and Sahar Shafqat. 1997. "The Liberal-Conservative Ideology of U.S. Senators: A New Measure." *American Journal of Political Science* 41(4):1395–1413.
- Hinich, Melvin and Walker Pollard. 1981. "A New Approach to the Spatial Theory of Electoral Competition." *American Journal of Political Science* 25(2):323–341.
- Holbrook, Thomas. 1996. *Do Campaigns Matter?* Thousand Oaks, CA, USA: Sage Publications.
- Holbrook, Thomas and Scott McClurg. 2005. "The Mobilization of Core Supporters: Campaigns, Turnout, and Electoral Composition in United States Presidential Elections." *American Journal of Political Science* 49(4):689–703.
- Hotelling, H. 1929. "Stability in Competition." *Economic Journal* 39:41–57.
- Jackman, Simon. 2009. *Bayesian Analysis for the Social Sciences*. West Sussex, United Kingdom: John Wiley and Sons, Ltd.
- Jackson, John and John Kingdon. 1992. "Ideology, Interest Group Scores, and Legislative Votes." *American Journal of Political Science* 36(3):805–823.
- Jackson, Robert. 1993. "Voter Mobilization in the 1986 Midterm Election." *Journal of Politics* 55(4):1081–1099.
- Jackson, Robert. 1997. "The Mobilization of U.S. State Electorates in the 1988 and 1990 Elections." *Journal of Politics* 59(2):520–537.
- Jackson, Robert. 2002. "Gubernatorial and Senatorial Campaign Mobilization of Voters." *Political Research Quarterly* 55(4):825–844.
- Jacobson, Gary. 2004. *The Politics of Congressional Elections*. 6th ed. New York, NY, USA: Pearson Education Inc.
- Kaufmann, Karen, James Gimpel and Adam Hoffman. 2003. "A Promise Fulfilled? Open Primaries and Representation." *The Journal of Politics* 65(2):457–476.
- Key, V. O. 1956. *American State Politics: An Introduction*. New York, NY, USA: Knopf.
- Kritzer, Herbert. 1977. "The Representativeness of the 1972 Presidential Primaries." *Polity* 10(1):121–129.

- Kube, Sebastian and Clemens Puppe. 2009. "(When and How) Do Voters try to Manipulate? Experimental Evidence from Borda Elections." *Public Choice* 139(1):39–52.
- Lancaster, Tony. 2000. "The Incidental Parameter Problem Since 1948." *Journal of Econometrics* 95:391–413.
- Langbein, Laura. 1986. "Money and Access: Some Empirical Evidence." *The Journal of Politics* 48(4):1052–1062.
- Lau, Richard and David Redlawsk. 2001. "Advantages and Disadvantages of Cognitive Heuristics in Political Decision Making." *American Journal of Political Science* 45(4).
- Lax, Jeffrey and Justin Phillips. 2009. "How Should We Estimate Public Opinion in The States." *American Journal of Political Science* 53(1):107–121.
- Levitt, Steven. 1996. "How Do Senators Vote? Disentangling the Role of Voter Preferences, Party Affiliation, and Senator Ideology." *American Economic Review* 86(3):425–441.
- MacDonald, Stuart, George Rabinowitz and Ola Listhaug. 1998. "On Attempting to Rehabilitate the Proximity Model: Sometimes the Patient Just Can't be Helped." *The Journal of Politics* 60(3):653–690.
- Mayhew, David. 1974. *Congress: The Electoral Connection*. New Haven, CT, USA: Yale University Press.
- McCarty, Nolan and Keith Poole. 1998. "An Empirical Spatial Model of Congressional Campaigns." *Political Analysis* 7(1):1–30.
- McKelvey, Richard. 1976. "Intransitivities in Multidimensional Voting Models and Some Implications for Agenda Control." *Journal of Economic Theory* 12:472–482.
- McKelvey, Richard. 1979. "General Conditions for Global Intransitivities in Formal Voting Models." *Econometrica* 47(5):1085–1112.
- Moreira, Marcelo. 2009. "A Maximum Likelihood Method for the Incidental Parameter Problem." *The Annals of Statistics* 37(6A):3660–3696.
- Morris, Irwin and George Rabinowitz. 1997. "Symposium. The Directional Theory of Issue Voting: IV. On the Coexistence of Directional and Proximity Voters." *Journal of Theoretical Politics* 9(1):75–88.
- Munger, Michael. 1989. "A Simple Test of the Thesis that Committee Jurisdictions Shape Corporate PAC Contributions." *Public Choice* 62(2):181–186.
- Neyman, J. and Elizabeth Scott. 1948. "Consistent Estimates Based on Partially Consistent Observations." *Econometrica* 16(1):1–32.

- Norrander, Barbara. 1989. "Ideological Representativeness of Presidential Primary Voters." *American Journal of Political Science* 33(3):570–587.
- Patterson, Samuel and Gregory Caldeira. 1983. "Getting Out the Vote: Participation in Gubernatorial Elections." *American Political Science Review* 77(3):675–689.
- Plott, Charles. 1967. "A Notion of Equilibrium and its Possibility Under Majority Rule." *American Economic Review* 57(4):787–806.
- Pool, Ithiel, Robert Abelson and Samuel Popkin. 1965. *Candidates, Issues, and Strategies*. Cambridge, MA, USA: MIT Press.
- Poole, Keith and Howard Rosenthal. 1985. "A Spatial Model for Legislative Roll Call Analysis." *American Journal of Political Science* 29(2):357–384.
- Poole, Keith and Howard Rosenthal. 1991. "Patterns of Congressional Voting." *American Journal of Political Science* 35(1):228–278.
- Poole, Keith and Howard Rosenthal. 2007. *Ideology and Congress*. New Brunswick, New Jersey, U.S.A.: Transaction Publishers.
- Poole, Keith and Thomas Romer. 1985. "Patterns of Political Action Committee Contributions to the 1980 Campaigns for the United States House of Representatives." *Public Choice* 47(1):63–111.
- Poole, Keith, Thomas Romer and Howard Rosenthal. 1987. "The Revealed Preferences of Political Action Committees." *American Economic Review* 77(2):298–302.
- Popkin, Samuel. 1991. *The Reasoning Voter: Communication and Persuasion in Presidential Campaigns*. Chicago, IL, USA: University of Chicago Press.
- Rabinowitz, George. 1978. "On the Nature of Political Issues: Insights from a Spatial Analysis." *American Journal of Political Science* 22(4):793–817.
- Rabinowitz, George and Stuart MacDonald. 1989. "A Directional Theory of Issue Voting." *American Political Science Review* 83(1):93–121.
- Rahn, Wendy. 1993. "The Role of Partisan Stereotypes in Information Processing about Political Candidates." *American Journal of Political Science* 37(2):472–496.
- Ranney, Austin. 1968. "The Representativeness of Primary Electorates." *Midwest Journal of Political Science* 12(2):224–238.
- Ranney, Austin. 1972. "Turnout and Representation in Presidential Primaries." *American Political Science Review* 66(1):21–37.
- Ranney, Austin and Leon Epstein. 1966. "The Two Electorates: Voters and Non-Voters in a Wisconsin Primary." *The Journal of Politics* 28(3):598–616.

- Snyder, James Jr. and Tim Groseclose. 2000. "Estimating Party Influence in Congressional Roll-Call Voting." *American Journal of Political Science* 44(2):193–211.
- Stokes, Donald. 1963. "Spatial Models of party Competition." *American Political Science Review* 57(2):368–377.
- Stone, Walter, Ronald Rapoport and Alan Abramowitz. 1992. "Candidate Support in Presidential Nomination Campaigns: The Case of Iowa in 1984." *Journal of Politics* 54(4):1074–1097.
- von Davier, Alina. 2007. *Linking and Aligning Scores and Scales*. New York, NY, USA: Springer chapter 6: Potential Solutions to Practical Equating Issues.
- von Davier, Alina, P. Holland and D. Thayer. 2004. *The Kernal Method of Test Equating*. New York, NY, USA: Springer.
- Weisberg, Herbert and Bernard Grofman. 1981. "Candidate Evaluations and Turnout." *American Politics Research* 9(2):197–219.
- Westholm, Anders. 1997. "Distance versus Direction: The Illusory Defeat of the Proximity Theory of Electoral Choice." *American Political Science Review* 91(4):865–883.

CLAYTON CLOUSE

CONTACT INFORMATION	Clayton Clouse N163 W19327 Cedar Run Dr Jackson, WI 53037	<i>tel:</i> (414) 698-5237 <i>email:</i> ceclouse@uwm.edu <i>web:</i> www.uwm.edu/~ceclouse <i>web:</i> www.claytonclouse.com
EDUCATION	Ph.D., Political Science University of Wisconsin–Milwaukee Fields: American Politics and Public Administration Dissertation: <i>In my dissertation I use PAC donations and bayesian methods to recover Senate candidate primary campaign ideology and general campaign ideology. Then I use multilevel modeling techniques to estimate state ideology. Finally, I use these measures to develop a spatial vote model.</i>	May 2013
	M.A., Political Science University of Wisconsin–Milwaukee Thesis: <i>Assessing the Impact of Context and Filter Effects in Surveys.</i> Committee: Thomas Holbrook (chair), Kathleen Dolan, and Marcus Ethridge	May 2007
	B.A., Political Science and Economics (Magna Cum Laude) University of Wisconsin–Milwaukee Senior Capstone Paper: <i>Party Identification: An Internal View</i> Advisor: Thomas Holbrook	December 2005
PUBLICATIONS	Clouse, Clayton. 2011. “Changes in Congressional Turnout, 1972-2006.” <i>Journal of Elections Public Opinion and Parties</i> , 21(4), pp. 453-472. Holbrook, Thomas, Clayton Clouse, and Aaron Weinschenk. 2011. “Bringing the President Back in: The Collapse of Lehman Brothers and the Evolution of Retrospective Voting in the 2008 Presidential Election.” <i>Political Research Quarterly</i> , 65(2), pp. 263-274. Holbrook, Thomas, Terri Johnson, Clayton Clouse, and Aaron Weinschenk. 2012. “Elections and Political Parties in Wisconsin.” In <i>Wisconsin Government and Politics</i> , 10th edition, editor Thomas Holbrook.	
RESEARCH AND TEACHING INTERESTS	AMERICAN POLITICS Congress; Parties; Political Behavior; Campaigns and Elections; Public Opinion; Interest Groups QUANTITATIVE RESEARCH METHODS Frequentist statistical methods; Bayesian methods; Recovering missing data; Latent dimension estimation; Multilevel Modeling; Formal Modeling	
TEACHING EXPERIENCE	PARTY POLITICS IN AMERICA (Undergraduate/Graduate level) University of Wisconsin–Milwaukee.	Spring 2011

	PUBLIC OPINION (Online) University of Wisconsin–Stevens Point.	Fall 2011
	POLITICAL DATA ANALYSIS (Undergraduate/Graduate level) University of Wisconsin–Milwaukee.	Spring 2012
	STATE GOVERNMENT (Undergraduate/Graduate level) University of Wisconsin–Milwaukee.	Fall 2012
RESEARCH ASSISTANTSHIPS	Mayoral Election Study With Professor Thomas Holbrook	September 2009 to present
	Wilder Crane Project Assistant With Professor Thomas Holbrook	July 2008 to September 2009
	Mayoral Election Study With Professor Thomas Holbrook	September 2007 to May 2008
	Congressional Leadership Networks With Professor Michael Tofias	June to August 2007
	Editor’s Assistant for Public Opinion Quarterly With Professor Nancy Mathiowetz (Editor In Chief)	September 2008 to May 2009
TEACHING ASSISTANTSHIPS	Political Data Analysis. With Professor John Bohte.	Spring 2007
	Political Research Methods. With Professor Marcus Ethridge.	Fall 2006
WORKSHOPS	“Introduction to R” at the University of Wisconsin–Milwaukee’s Helen Bader School of Social Welfare, June 15-16th, 2010	
	“Applied Multi-Level Modeling for Social Science & Public Health Research Workshop” at the University of Wisconsin–Milwaukee’s Helen Bader School of Social Welfare, July 20th-21th, 2009	
	“Introduction to Social Network Analysis” workshop at the University of Wisconsin–Milwaukee’s Helen Bader School of Social Welfare, August 18th-19th, 2008	
CONFERENCE PRESENTATIONS	“Ideological Movement: Adapting to Different Electorates.” Prepared for the 2011 Midwest Political Science Association Annual Meeting, Chicago, Illinois.	
	“Is This Heaven? No, Its Iowa: Simulating Outcomes in the Iowa Caucuses.” Prepared for the 2010 American Political Science Association Annual Meeting, Washington, D.C. (with Michael Tofias).	
	“Changes in Congressional Turnout, 1972-2006.” Prepared for the 2009 Midwest Polit-	

ical Science Association Annual Meeting, Chicago, Illinois.

“Measuring Contextual Influences on Voter Turnout in U.S. House Elections.” Prepared for the 2009 Midwest Political Science Association Annual Meeting, Chicago, Illinois. (with Aaron Weinschenk)

“Where are all of the Liberals?” Prepared for the 2008 Midwest Political Science Association Annual Meeting, Chicago, Illinois.

“Is This Heaven? No, Its Iowa: Simulating Outcomes in the Iowa Caucuses.” Prepared for the conference on “Reforming the Presidential Nomination Process” at the University of Iowa, Iowa City, Iowa, January 4th, 2008 (with Tom Holbrook and Michael Tofias).

PROFESSIONAL MEMBERSHIPS	American Political Science Association	October 2008
	Midwest Political Science Association	January 2008
	Milwaukee Graduate Assistants Association	August 2006
	Political Science Graduate Student Association	January 2006

REFERENCES	Tom Holbrook	Michael Tofias
	Wilder Crane Professor of Political Science	Assistant Professor of Political Science
	University of Wisconsin–Milwaukee	University of Wisconsin–Milwaukee
	(414) 229-6468	(414) 229-4518
	Kathleen Dolan	David A. Armstrong
	Professor of Political Science	Assistant Professor of Political Science
	University of Wisconsin–Milwaukee	University of Wisconsin–Milwaukee
	(414) 229-3892	(414) 229-4239

Updated on May 13, 2013.