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The Impact of Campaign Finance on Roll Call Behavior, Voter Perceptions, and Democratic Responsiveness

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Abstract of the Dissertation

The Impact of Campaign Finance on Roll Call Behavior, Voter Perceptions, and Democratic Responsiveness

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Levels of partisanship and polarization within Congress are at high levels. However, this development defies the expectation of Downsian models. My dissertation attributes polarization to the activity of political donors. Using a database of over 13.5 million individual donors, I use advanced time series models to show that donors have been increasingly rewarding Republicans who toe the party line. In the second section of my dissertation, I explore how incumbent politicians may be using these campaign contributions to offset any potential electoral penalties for excessive partisanship. My examination of survey evidence shows that incumbents may be using campaign spending to reduce the ideological distance that voters perceive between themselves and incumbent politicians. The final section of my dissertation explores whether campaign contributions are decreasing the democratic responsiveness of legislators. I use polling data to generate state-level estimates of presidential approval. I then use these estimates to determine whether campaign contributions lower the responsiveness of legislators to public opinion. Overall, my dissertation shows that political donors are a key driver of congressional polarization. This development may have significant implications for the functioning of American democracy, as political donors may be making the political system less responsive the public.

Dedication Page

To my parents and sister for their help and support.

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Chapter 1

1 Introduction

Contemporary American politics is characterized by discord and conflict. Over the past five years the federal government has shutdown, Supreme Court seats have remain unfilled, and the credit rating of the United States has been downgraded all due to the inability of Congress to reach across the aisle and compromise. Congressional productivity has dropped, and gridlock has been the defining feature of Congress (Kuo and McCarty, 2015). At the same time, approval of Congress has dropped to exceptionally low levels. This dissatisfaction may have created an environment ripe for the popularity of political outsiders like Donald Trump.

The primary driver of this state of affairs in Congress has been attributed to polarization. Polarization is the notion that the two parties are growing further apart ideologically. This makes finding common ground on which to compromise more difficult. At the same time, since polarization raises the stakes of legislative outcomes, parties have an incentive to break norms and fight the opposition tooth and nail (Mann and Ornstein, 2013). The net result of all this conflict has been record low approval ratings for Congress.

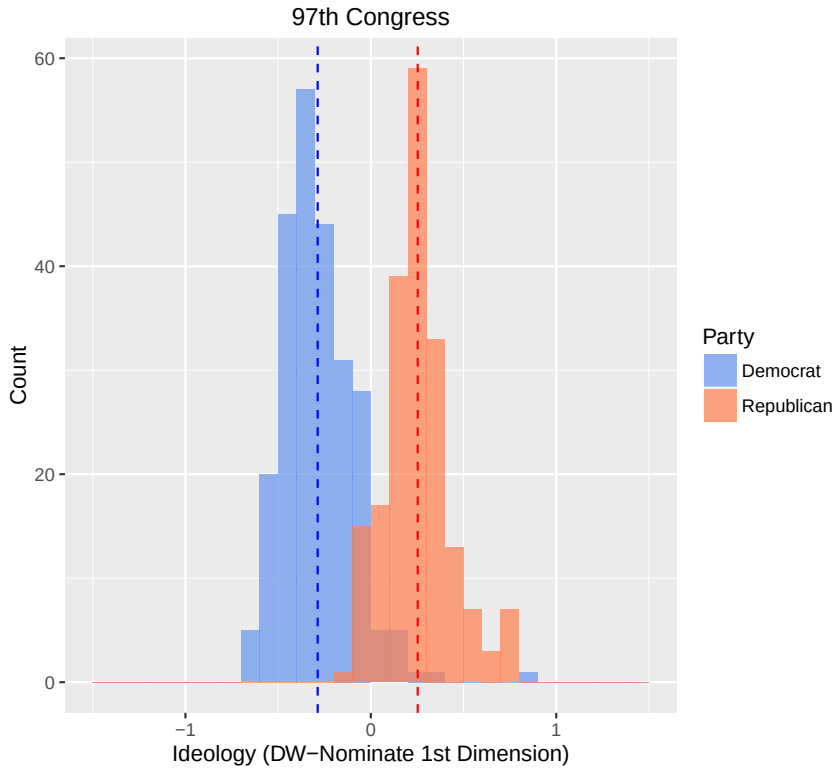
If polarization and gridlock is causing the public to lose faith in Congress, why are legislators becoming more extreme? Theoretically a party could gain electoral advantage by moderating its position to appeal to a wider swath of voters (Downs, 1957). In this dissertation I seek to resolve this puzzle, and argue that the rise of political donors is driving politicians to become more extreme in order to secure donations from donors. I then examine how incumbents are using this money to avoid the consequences of extremity, and explore whether donors are affecting the responsiveness of legislators to public opinion. First though, I will review some theories of polarization and then outline the structure of this dissertation.

1.1 Polarization

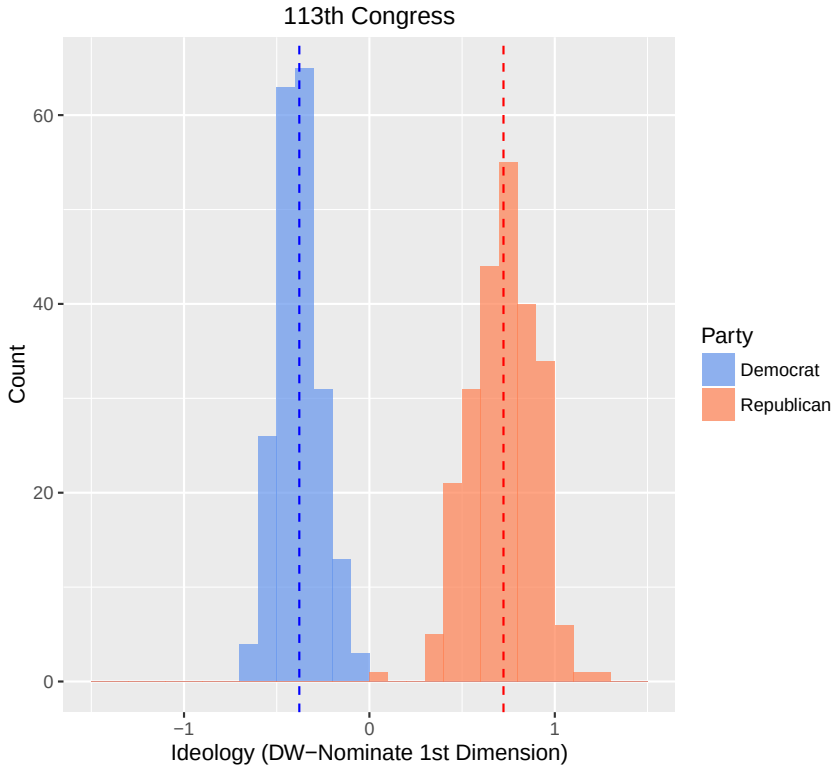
Recently, political scientists have been observing increased levels of polarization in Congress. Partisan rancor is high, while civility and bipartisanship are plummeting. Empirically, scholars have been tracking this phenomenon using a wide variety of metrics. Overall, the frequency of partisan roll call votes (in which the majority of one party opposes the majority of the opposition party) has increased (Barber and McCarty, 2015). At the same time, legislators are increasingly loyal to their party, and legislators within each party are becoming more ideologically homogenous. The ideological distance between parties in Congress is increasing. Polarization has even extended to state level politics (Shor and McCarty, 2011). Perhaps the best illustration of Congressional polarization is through McCarty, Poole and Rosenthal (2006)'s DW-Nominate scores, which use a legislator's voting history to estimate that legislator's ideology (or revealed preference). Figure 1.1 shows the distributions of ideologies in the 97th Congress and the 113th Congress. In the 97th Congress, we can see that there are considerable amounts of overlap between the two parties. The most conservative Democrat is more conservative than the most liberal Republican. However, when we look at the most current Congress, we can see that this is no longer the case. The most liberal Republican is more conservative than the most conservative Democrat. Furthermore, we can observe that the ideological means of both parties have moved even further from the middle, signifying increased ideological distance between the two parties.

Polarization is also a central feature of the Senate. Figure 1.2 plots the mean ideology of each party in the Senate since the end of WW2, and includes a shaded region denoting the standard deviation of the parties. Like in the House, we can see that the distance between the two parties has increased considerably. We can also note how the Republicans are rapidly becoming more extreme, while also becoming more ideologically homogenous.

Figure 1.1: Distribution of Ideology by Party for the 97th and 113th Congresses

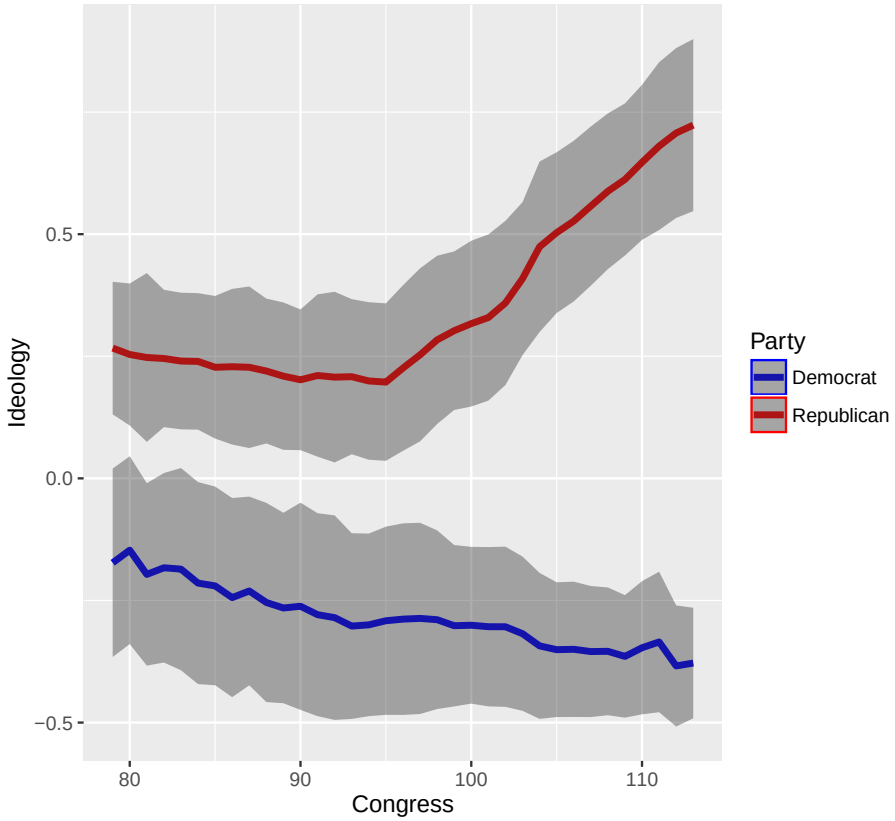


(a)



(b)

Figure 1.2: Mean Ideology in the Senate by Party and Congress from Post World War 2 to Present Day



Note: Lines are mean DW-nominate scores for the party along the 1st dimension. Ribbon borders are one standard deviation above and below the mean. The 80th Congress was in session from 1947-1949. 110th Congress was in session from 2007-2009.

1.2 Causes of Polarization

While high levels of polarization is a defining feature of the current political landscape, this has not always been the case. Reviewing the above figures shows that in the past the parties were closer ideologically, and there were higher levels of ideological overlap between the parties. What changed? Scholars have attributed increases in polarization to factors such as attitudinal polarization amongst the public, geographic sorting of voters, and changes in the structure of political parties. This section will review various theories of polarization.

Scholars have suggested changes in the political attitudes of the public may be causing polarization. Under this theory, congressional polarization is a reflection of cleavages that are developing within the public at large. One significant change in the voting public has been the increasing alignment of ideology with partisanship. Essentially, conservatives are sorting into the Republican party while liberals are sorting into the Democratic party (Fiorina, Abrams and Pope, 2008). This process may be driven by voters identifying cleavages between the political parties on issues important to them, and then adjusting their partisanship to match their preferences (Hetherington, 2001; Abramowitz and Saunders, 1998). Alternatively, on issues that voters do not feel strongly about, they may change their policy preferences to match their partisanship (Carmines and Stimson, 1986; Carsey and Layman, 2006). The net result is a much closer alignment of attitudes with partisanship.

Ideological sorting may have had the greatest impact on the politics in the South. Prior to the Johnson administration, the South was a staunchly Democratic region and consistently elected Democratic senators and MCs. While these southern legislators were Democratic, they also tended to have more conservative ideologies than northern Democrats, particularly on racial issues (Valentino and Sears, 2005). Overall, this created an entire group of legislators that were being pulled in two different directions: partisanship was pulling them in a liberal direction, while ideologically they were being pulled rightward. This meant that cross-pressured southern Democrats were a frequent source of overlap, as it was not unusual for them to defect from other Democrats, and vote in the conservative direction on a bill.

After President Johnson signed the Civil Rights Act, racially conservative southern voters became disgruntled with the Democratic party, and began to migrate over to the Republican party (Valentino and Sears, 2005). When these voters began to elect conservative Republicans instead of conservative Democrats, the right wing of the Democratic caucus shrunk, eliminating a segment of ideological overlap within Congress.

Along with ideological sorting, partisans in the general public may be moving further apart ideologically. For example, Abramowitz and Saunders (2008) find that the difference between the ideological self identification of partisan voters has almost doubled since the 70s. Polarization is also extending to actual issue preferences, as correlations between partisanship and issue positions have also increased (Abramowitz and Saunders, 2008; Levendusky, 2009). Furthermore, partisans are polarizing across a wider range of issues (Layman and Carsey, 2002).[1] This line of reasoning generally presupposes that polarization in the public is not driving polarization, rather the public is following elites. Partisan identifiers observe political elites stake out positions on an issue, and then follow suit (Carsey and Layman, 2006; Carmines and Stimson, 1986)

Other scholars argue that polarization has occurred on more of an identity-based dimension. Under this theory, members of each party have a stronger identification with or attachment to their party. These elevated levels of partisan identification may be increasing levels of participation (Mason, 2015; Huddy, Mason and Aarøe, 2015). Functionally, this has also lead partisan identifiers to dislike the members of the opposing party, which may incentivize political elites to avoid compromise; by maintaining conflict elites can encourage voters from their party to turnout and participate in elections (Iyengar, Sood and Lelkes, 2012). Voters also appear to be placing more weight on partisanship when making voting decisions as partisanship has become an increasingly strong predictor of vote choice (Bartels, 2000).

In addition to ideological sorting, the public has experienced geographic sorting. Under

[1]However, there is far from unanimous agreement on this contention. See Fiorina, Abrams and Pope (2008)

this theory, congressional districts are becoming increasingly politically homogenous. One proposed explanation for geographic polarization is gerrymandering. Carson et al. (2007) argue that districts are being drawn to make the districts more homogenous and safer for each party. However, while this may have a small influence at the margins, this explanation is not overly satisfying and does not explain a significant portion of polarization (Theriault, 2008). Put simply, if gerrymandering was driving polarization, why is polarization also occurring in the Senate, where gerrymandering is not an option (McCarty, Poole and Rosenthal, 2006)?

Instead, voters themselves seem to be driving geographic polarization by increasingly moving into the same geographic area. So, Democrats are moving into cities and neighborhoods with other Democrats, and Republicans are moving into neighborhoods with other Republicans. This seems to be the case, as when scholars have looked at geographic locales such as counties and cities, they have found these have become increasingly homogenous (Theriault, 2008). The net result of increasing homogeneity is that the median voter within each district shifts away from the middle of the ideological distribution. Empirically, we can find some strong support for this effect as the number of competitive electoral districts has dwindled (Abramowitz, Alexander and Gunning, 2006). In order to better represent district preferences, legislators from the district also become more extreme (or the district begins to elect more extreme representatives) (Jacobson, 2000). In this case elite polarization is caused by representatives following their districts.

When taken together, these theories explain a large deal of the polarization scholars have observed. Voters have sorted into parties, polarized on issues, and geographically sorted. These have combined to make the median voter within each district more extreme, which means that in order to stay electorally competitive, politicians should adopt more extreme stances to reflect the new composition of the electorate. However, when scholars have examined the extremity of legislators relative to the median voter in each district, they have found that legislators are even more extreme than their constituents. For example, Bafumi and Herron (2010) use surveys of voter preferences on roll call votes to jointly estimate the

ideology of voters and MCs and show that MCs are consistently more extreme than their district. These findings are echoed by Peress (2013) who uses survey data to estimate voter ideology on a multidimensional scale and demonstrates that legislators are more extreme than constituents, even after accounting for the multidimensional nature of public ideology. Jointly, these findings suggest that attitudinal and geographic based causes of polarization, while likely contributing to polarization, do not tell the full story.

1.3 Party Activists and Party Structure

Party activists may be a strong factor driving polarization. Partisan activists are members of the public who engage in significant political activity outside of voting. These are the individuals who volunteer for campaigns, attend party meetings, and even donate money (Aldrich, 1995). Scholars believe these activists are crucial to the functioning of political parties, and have considerable influence over the policies that parties adopt. In fact, Bawn et al. (2012) conceptualize parties as coalitions of policy activists. Under this model, activists are individuals who feel strongly about a particular policy (or policy domain) and wish to see these policies enacted by the government. However, on their own these activists would not be able to form a viable political party, or be electorally competitive, based on this one issue. Therefore they form alliances with other activist groups in a type of quid pro quo relationship. Political parties then are a series of these interest group alliances that endure through a reasonable length of time (Bawn et al., 2012). For example, in the Republican party, abortion activists are aligned with tax activists.

Over the long term, activist alliances are important in structuring politics in the United States. At the legislative level, this arrangement serves to align legislators on a single dimension (Poole and Rosenthal, 1997). Aligning on one dimension avoids social choice problems (like preference cycling) that would result from the existence of multiple issue dimensions in the legislative policy space (Aldrich, 1995). Furthermore, activist activity, as well as party competition for activists coalition is a significant driver of change in American politics. Miller

and Schofield (2003) argue that parties adopt new policy preferences in an attempt to pick up activists, ideologically flank the opposing party, and gain electoral advantage over the opposition. These maneuvers drive significant changes in the structure of American politics, and may drive electoral realignments (Miller and Schofield, 2003).

Activists have a number of mechanisms through which they influence the party in the short term as well. One of the most important is the role that activists play in gatekeeping. Gatekeeping is the ability of activists (as well as other party actors) to control which politicians are nominated to represent the party in general elections, generally through primaries. Primaries are elections in which voters in the party select their nominee for the general election. Activists influence this process by providing resources to (either monetary resources or physical resources like volunteering) candidates that they feel will advocate for the policies that they prefer. In order to court these activists and secure the resources necessary to win the election, politicians will try to adopt policies that appeal to a wide swath of their party's activists (Bawn et al., 2012; Cohen et al., 2009). Furthermore, activists generally tend to vote in the primary election, which may facilitate polarization by encouraging politicians to become more extreme in order to win the primary election. This is particularly true if primary voters are more extreme than the voters in the general electorate, which is likely to occur in closed primaries, where only voters registered with a party are eligible to participate in that party's primary. Scholars looking at exit polling data have found this to be the case, as participants in closed primaries are more ideologically extreme than when states have open primaries (Kaufmann, Gimpel and Hoffman, 2003). This has electoral consequences, as candidates that are further from the center of their districts and closer to the center of the primary electorate are more likely to win the primary election (Brady, Han and Pope, 2007). However, while these studies suggest that primaries have a polarizing influence, it is unclear that primaries are a source of change in the levels of polarizations. For example, scholars have looked at whether changes in primary rules (moving from closed primaries to open primaries) have only found sparse evidence that these changes affect polarization

(Masket et al., 2014; Bullock and Clinton, 2011).

Along with showing up for the primary, activists can rely on alternative means to control the politicians in the party. One such avenue of influence is the role that the leaders of activist groups play in vetting politicians. Through this vetting process, activists can help ensure that politicians friendly to their cause represent the party, and endorse and provide resources to favored candidates during elections. For example, Cohen et al. (2009) argue that appealing to a variety of activist factions within the party is pivotal in securing the party's nomination for president. Essentially, aspirants to the nomination seek to assure interest groups that they will advocate for the group's interests once elected. In turn the leaders of the different factions endorse (and fund) the candidate. These endorsements prove to be pivotal in winning the nomination (though Trump is a clear exception to this rule), and in fact serve as strong predictors of nomination success (Cohen et al., 2009). The importance of activists extends to the general election itself, as candidates who are financially supported by party networks fare better in elections than candidates who do not receive high levels of support (Desmarais, La Raja and Kowal, 2015).

However, from an activist's perspective, there are still two problems. First, even though activists may have the candidate they want as the party's nominee, in order to effectively represent the interests of the activists this candidate needs be elected, and then reelected. If a preferred candidate is not in office, then their ability to influence policy is extremely limited. Second, even if their candidate wins, partisan activists face a principal-agent dilemma; the politician may prioritize reelection, and have an incentive to strategically defect from the activists. In order to limit these principal-agent problems, activists need a mechanism to reward and punish politicians after they have cleared the gate and entered politics. Political donations can provide solutions to both of these problems. On the electoral front, money (and other resources) can help politicians win elections and be in the position to advance the agenda of party activists. Once in office, donations can be used to help solve the principal-agent problem by allowing activists to provide more (or fewer resources) depending on how

faithfully a politician is advancing the agenda of the activists.

In addition to the level of polarization amongst activists, activists' power relative to other elements of the party can have important impacts on levels of political polarization. While Bawn et al. (2012) conceptualize parties to be alliances of activist groups, other scholars have more expansive definitions of the party. Perhaps one of the more useful conceptualizations is by Key (1964) who views parties as existing across three broad domains: the party in the electorate, the party in government, and the party as an organization. The party in government consists of elected officials of the party, these are members of Congress and other elected officials. The party in the electorate is partisan identifiers in the electorate as well as party activists, while the party as an organization is the more formalized organizations of the party. The national party committees and the state committees would be an example of the party as organization. While the Bawn et al. (2012) model of parties starts with the party in the electorate and builds the party in government and the party as an organization up from the electorate, other scholars have focused on the party in government. For example, under the Downsian model, parties are considered to consist of groups of like-minded legislators that seek reelection. Under this model power is the end goal of the parties. This desire to win elections drives the actions of politicians. For example, MCs may structure the organization of Congress in order to help secure elections (Mayhew, 1974). At the same time, the organizations within the party are created to maximize the electoral success of the party. For example, party organizations seek to mobilize the party in the electorate (in order to help the party win) while seeking to help individual legislators by providing legislative expertise (Aldrich, 1995).

A key insight from the comparison of these theories is that although the three levels of the party are closely related, the end goals of each level are not always the same. Activists seek policies, while politicians and party organizations prioritize electoral victory. La Raja and Schaffner (2015) argue that shifts in the balance of power between these groups are a crucial driver of polarization. One of the primary determinants of power is who controls the

distribution of campaign funds. When activists control the spigot and have more power then the parties drift away from the middle. When pragmatist politicians and party organizations have more power, they distribute funds so that candidates move towards the middle, in order to maximize electoral prospects. A crucial determinant of who controls the spigot is campaign finance laws. Campaign laws that favor organizations such as party committees and PACs allow them to control who gets funds. However, when campaign finance laws favor individuals, the party organizations have limited ability to mediate the polarizing influence of extremist donors. Shifts in campaign laws at the national level have favored extremist donors by limiting the ability of party organizations to raise and spend money (La Raja, 2008).

Empirical evidence at the state level provides support to La Raja and Schaffner (2015)'s theory. For example, when state party committees have free reign in raising and spending political contributions, politicians become more moderate (La Raja and Schaffner, 2015). Scholars have also been able to use variation in state-level political contribution limits to show that when organizational donors are favored over individual contributors, politics becomes less polarized (Barber, 2016*b*). While these works indicate that donors are influencing polarization at the state level, they do not extend their analysis to the national level.

There is considerable evidence that activists are becoming more polarized. For example, Theriault (2008) looks at opinion surveys of delegates to the national conventions. When modern day delegates are compared to delegates from the 70s, it is apparent that activists have been taking more extreme stances on issues than in the past, and have a stronger ideological identification than in the past (Theriault, 2008). Furthermore, in addition to becoming further apart on the issues, partisan activists are polarizing on a wider number of issues (Layman et al., 2010). The polarization of political activists means that the center of the party may be further from the center of the electorate. Functionally, this means that in order to secure resources and win primary battles, politicians may need to become even more polarized than they were in the past.

Overall, we can see the important role that activists play in the functioning of political parties. By influencing the nomination process activists can ensure that friendly politicians are representing the party. Their role in providing resources for the party provides the means to help the party contest elections. All else being equal, more money helps a candidate win an election (Gerber, 1998). Therefore in order to remain electorally competitive politicians need to appeal to these activists for the resources.

1.4 Partisan Donors

This though leaves the question of how legislators can entice activists to donate. Overall, political donors tend to make up a relatively small portion of the population; generally they are politically interested individuals with relatively high amounts of income (Brady, Verba and Schlozman, 1995). Analyses of donor records indicate that donors are older, whiter, and more male than the voting population at large (La Raja and Schaffner, 2015). While donors as a group may have similar demographics, the motivations behind donating are diverse. For example, scholars have argued that some donors seek strategic benefit while other donors may donate based more on ideology and personal preferences. This next section will review the different types of donors, and then relate how the characteristics of donors may drive polarization.

Donors that are looking for access and favorable policies have been well studied by political scientists. These strategic donors do not necessarily have strong ideological inclinations, however, they do prefer laws that are favorable to their material interests to pass. Since they are not ideological, it is presumed these strategic donors are equally comfortable working with whichever party wins the election, and may actually temper polarization (La Raja and Schaffner, 2015). Evidence suggests that donors do benefit from their donations. Cooper, Gulen and Ovtchinnikov (2010) find that when a corporation donates to winning politicians, that corporation's subsequent stock returns are higher. Other studies exploited the mid-session change in partisan control of the Senate from the Republicans to the Democrats in

2001 to show that companies that donated heavily to Republicans experienced lower returns following the switch (Hartog and Monroe, 2008). A study by Grier, Munger and Roberts (1994) indicates that these returns are likely through government interventions, as industries that are heavily regulated by the federal government (or are substantial recipients of government spending) give more in donations.

Interestingly, the evidence that strategic donors influence the outcome of roll call votes is mixed. Ansolabehere, De Figueiredo and Snyder (2003) use an instrumental variables approach to show that donations seem to only have small effects on MC decisions in roll call votes. This finding is echoed by Bronars and Lott Jr. (1997) who argue that if donations were influential, then there would be expected differences between retiring and non-retiring legislators, and then show that this is not the case. However, some scholars have found evidence indicating that donors may matter on particularly important votes, like Supreme Court nominations (Austen-Smith and Wright, 1994). Instead of outright vote buying, strategic donors appear to use donations to affect legislation early on, during the drafting stage of bills (Hojnacki and Kimball, 1998). For example, Hall and Wayman (1990) find that when interest groups donate to friendly legislators, that particular legislator becomes more involved in the legislative process on behalf of that interest group. In fact, interest groups appear to concentrate donations and lobbying on legislators in committees that overlap with donor interests; exactly where legislators would be best positioned to affect the drafting of the bill (Romer and Snyder Jr., 1994).

While some donors are clearly pursuing material benefit, it is unlikely that this is the motivation for all donors. Ansolabehere, De Figueiredo and Snyder (2003) note that while large amounts of money are spent on politics in absolute terms when one considers the scope of federal authority, as well as the gains to be made from donating, overall levels of donations are lower than one might expect them to be. In fact, less is spent on politics than is spent on advertising gum (Sides 2009). The primary driver of donors then may be consumption; donors donate to candidates because they like them and ideologically agree with them.

Recent empirical studies of donors support the contention that ideology is a key motivating factor for donors. Scholars have begun using surveys of large donors to explore where contributors target their donations. For example, Barber (2016*a*) surveys donors in the 2012 elections and finds that individual donors have ideological motivations for donating. Additionally, donors are more likely to give to legislators who advocate for the policies preferred by donors (Barber, Canes-Wrone and Thrower, forthcoming). La Raja and Schaffner (2015) conduct an extensive analysis of the behavior of ideological donors. Using consumer profiles from an analytics firm they explore how the ideological distribution of voters differ from the ideological distribution of donors and show that while normal voters tend to be moderate, donors tend to be ideologically extreme. This extremity extends beyond estimated ideology, as survey data showed that individuals who donate are also more extreme on the issues (La Raja and Schaffner, 2015).

The key insight from the La Raja and Schaffner (2015) study is that donors have a bimodal distribution, with peaks clustered around extremely conservative and extremely liberal. The bimodal distribution of donors, coupled with the fact that donors are more likely to donate to politicians who are ideologically similar means that if a politician needs more money, that politician will have appeal to extreme donors to get more money. Other scholars have theoretically and empirically examined this to show that under certain conditions politicians may find it advantageous to appeal to donors to raise funds (Moon, 2004). Johnson (2010) looks at roll call extremity and congressional fundraising and finds that extremity makes it easier for MCs to raise money from out of state donors and small contributors.

While the above studies are convincing in explaining the relationship between extremity and donations, in order for donors to be driving polarization the relationship between donors and politicians needs to be evolving. One such reason to believe in this evolution is the evolving nature of campaign finance laws. As mentioned earlier campaign finance laws are pivotal in determining the balance of power between partisan activists and the party organizations (La Raja and Schaffner, 2015). At the same time, scholars have begun to create

datasets that allow us to examine how donors themselves have changed over time. Heerwig (2013) matches donor records through time to show that the proportion of individual donors that have been willing to donate to both parties has dwindled. This provides further evidence that activists in both parties are polarizing, and the monetary rewards for bipartisanship may be dwindling.

On one hand, legislative polarization has been increasing over time. At the same time, we have evidence that donors are polarizing and campaign finance laws are shifting in a direction that gives more power to activists. In order to obtain the resources to win primaries and general elections, candidates need to appeal to these activists. At the state level, we know that activists are polarizing state legislators. I argue that these changes to the structure of donors are serving to polarize members of Congress. Essentially, by radicalizing, MCs can be in more in line with donors, and entice these donors to donate to them. Furthermore, and most importantly I argue that this relationship is changing over time. It is stronger today than it was during the less polarized past. I examine this question by using advanced time series models to examine the relationship between party voting in Congress and how strongly donors reward MCs for party loyalty. The key contribution of this dissertation is that it provides evidence that donors are contributing to polarization; by allowing the strength of the relationship to vary over time, I can exploit the longitudinal nature of campaign finance records and show that donors are increasingly rewarding MCs for being loyal partisans and ideological extremists.

It is important to note that I am not arguing that donors are the sole source of polarization, just that they are contributing to polarization. Political polarization is a complex phenomenon, and the other factors may be intertwining with donor behavior to drive polarization. For example, if individuals that are at the ideological extremes are more likely to donate, and the public itself is becoming more polarized, then it stands to reason that as the public becomes more polarized the pool of potential donors should be increasing. Even geographic polarization may be freeing individuals to donate more money to parties. For

example, La Raja (2014) use experimental evidence to show that individuals are less likely to donate to political campaigns when the majority of their neighbors have opposing political views (particularly when these donations would be made public). If geographic areas are becoming more politically homogenous, this may be removing some social constraints on donating and increasing the size of the donor pool.

1.5 Partisan Asymmetry

In addition to changes over time, I expect the relationship between donors to differ by party. At the congressional level, Republicans and Democrats have different institutional arrangements that may affect the importance MCs place on donors. One key difference is the role that money plays in determining who wins leadership positions within the House. One important finding is that Republicans have moved from a system that placed an emphasis on seniority when selecting members for leadership positions, to one that emphasizes money raised for the party (Cann, 2008). Republican MCs who are successful in raising money, and then distributing it to the party committee and co-partisans are much more likely to win leadership positions than MCs who fail to raise significant funds. Because of this, ambitious Republican legislators would find it advantageous to seek to raise as much money as possible. If extremity helps them raise funds, this may strengthen the relationship between legislators and partisan donors.

Asymmetry between the parties could also arise due to differences in the network structure of the parties. Overall, the network structure of a party may be integrally related to the ability of candidates to raise funds because interest groups and PACs have a network structure (Grossmann and Dominguez, 2009). These interest groups frequently exchange staff members, which can serve as an informal linkage between formal party organizations and different interest groups (Skinner, Masket and Dulio, 2012). Overall, Republicans have a denser more hierarchical network structure (Koger, Masket and Noel, 2009). This difference in organization may affect the ability of donors to coordinate, and may temper the

relationship between politicians and donors (Grossmann and Dominguez, 2009).

Finally, and perhaps most importantly, there are crucial differences between activists in each party. Saunders and Abramowitz (2004) find that ideology played a stronger role in motivating Republican identifiers to participate in politics, which suggests Republicans may have more to gain from polarization. There are also differences in how the donors of each party perceive the ideology of candidates. Democratic donors perceive the ideology of their candidates to be similar to the party. However, the most extreme Republican donors perceive the candidates to be considerably more extreme than the party itself (La Raja and Schaffner, 2015). Functionally, this may create incentives for Republican politicians to appeal directly to these extremist voters in order to raise funds. If donors are donating to individuals and organizations that are closest to them ideologically, then this may make it easier for Republicans to appeal directly to donors.

Along with differences in the attitudes and behaviors of donors in the two parties, there are also differences in their characteristics. One of the primary differences is that Republicans tend to be wealthier than Democrats (Gelman, 2009). Barber, Canes-Wrone and Thrower (forthcoming) use a survey of donors to examine what motivates donors to donate, as well what affects the size of their donations. They find that ideology is an important determinant in motivating donors to actually donate. However once a donor decides to donate, ideology does not seem to affect the size of the donation. Instead, income is one of the most important components in determining the size of a political donation (Barber, Canes-Wrone and Thrower, forthcoming). If Republican activists have higher levels of income, it would suggest then that there is more money to be made by appealing to them. Overall this means that Republicans may have more of an advantage from appealing to their base. La Raja and Schaffner (2015) show that this is the case by examining how much money donors donate across the range of political ideologies, and finding that there are more donations from those that have conservative preferences.

1.6 Constraints on Partisanship in Congress

While donors may be polarized, the general voting public is not nearly as polarized. Activists and donors make up only a tiny portion of the electorate. This suggests that appealing to activists could be risky. In the next few paragraphs I briefly overview the theoretical reasons why extremity may be risky and then discuss the empirical evidence supporting this contention.

Above we can see a number of reasons why members of Congress may be polarizing. However, there are also an array of forces that may prevent Congress from becoming perfectly partisan. Perhaps the primary constraint lies with the voters themselves. In the classical Downsian model of spatial voting, voters have preferences on a unidimensional space and vote for the candidate that has the closest ideology. Reelection minded politicians support policies that position themselves towards the ideological middle in order to maximize their electoral prospects. The intuition is that by positioning themselves towards the middle, politicians can minimize the ideological distance between themselves and most voters, therefore winning the most votes.

Overall, there is support for the contention that moderation can help candidates and parties win votes. At the micro-level, voters are more likely to vote for the candidate that is closest to them ideologically. When voters are presented with vignettes that vary the levels of incumbent partisanship and extremity, they have more negative views of incumbents that are portrayed as being overtly partisan (Carson et al., 2010). Aggregate analysis has also demonstrated that extremity has consequences. MCs who have extreme voting records are more likely to lose elections (Canes-Wrone, Brady and Cogan, 2002). In fact, parties seem to strategically adjust their levels of unity in response to the opposing party. When one party becomes less unified, politicians from the opposing party tend to follow suit in order to maintain electoral competitiveness (Lebo, McGlynn and Koger, 2007).

Overall then, in order for politicians to feel comfortable polarizing, they need to be able to escape the consequences of polarization. I argue that in the event that politicians are

out of line with their constituents, they can try to out campaign their opponent. Out campaigning their opponent may alter how voters perceive the incumbent's ideology and overall competence, thus compensating for some (but not all) of the electoral costs of extremity.

1.7 Donors and Legislator Responsiveness

If legislators are able to obtain more money from radicalizing and then use that money to affect voter perceptions about the extremity of their roll call record this has the potential to undermine a key mechanism behind democratic accountability. Why worry about aligning with the public's preferences when radicalizing does not bring steep consequences and appealing to the center risks alienating partisan activists (limiting access to cash and potentially causing problems in the primary)? Put simply, the rise of donors may be eliminating incentives to be responsive to public opinion.

Recent scholarly work has also begun questioning how responsive legislators are to the general public. For example, at the state level, Lax and Phillips (2012) find that interest group opposition can decrease the probability that a state adopts policies that its population supports. Functionally there also may be a small conservative bias in how states implement policies.[2] Discrepancies in representation may also exist on the national level. Gilens (2012) assembles a vast array of polls and breaks down issue preferences by income and finds that when attitudes are used to predict which policies are adapted by Congress, only shifts in opinion for the economic elite seem to genuinely affect government policy.

Overall, the results on declining democratic responsiveness, coupled with increasing political polarization suggest the two may be interrelated. Theoretically, if politicians need to appeal to activists in order to obtain resources (and win primary and general elections) this may make them less responsive to public opinion. I argue that this is in fact the case.

[2]Though this could be due to the policies that Lax and Phillips (2012) decided to examine

1.8 Chapter Outline

In Chapter 2, I examine how donors respond to party voting in Congress. In order to do this, I create a dataset that aggregates data on over 13 million individual campaign contributions to members of Congress and combines these data with roll call voting records. I explore this dataset using ARFIMA-MLM models to show how the relationship between donations and party-line voting in Congress has evolved over the past 3 decades. My analysis shows that when MCs vote with their party more frequently, they see higher levels of donations. When I look at how this relationship has evolved over time, I find that the relationship between donors and Democrats has been relatively constant. However, there has been a sharp increase in the strength of this relationship for Republican MCs. Republicans that vote with their party more frequently (relative to the rest of their party) are more generously rewarded by donors in more recent Congress than they were in the past.

Though the results from Chapter 2 may explain some of the polarization present in Congress, these results do not explain why voters are not holding members of Congress accountable for becoming more extreme. In Chapter 3 I answer this question by exploring the relationship between campaign advertising and voter perceptions of candidate ideology. I create a unique dataset that combines data on incumbent ad spending with survey responses from the 2008 CCES. My analysis shows that ad spending has the ability to affect how voters perceive the ideological distance between themselves and candidates. When an incumbent has more of an advertising advantage, the voter perceives a smaller ideological gap between themselves and the incumbent. I run mediation models that show that this may be due to advertisements increasing a voters evaluation of a candidates valence characteristics; the greater the advertising advantage, the higher voters evaluate an incumbent's valence characteristics. In turn, this may cause voters to perceive the incumbent to be closer to themselves.

In my 4th Chapter, I explore whether the activities of donors is affecting how responsive legislators are to public opinion. In order to do so, I look at how responsive senators are to

changes in presidential approval. To test this, I combine about 100 Gallup polls conducted during the George W. Bush administration to create a dataset of over 95,000 survey respondents. With this dataset, I use multilevel regression with postratification (MRP) over time to generate state-level estimates of presidential approval for each quarter during the Bush administration. I then combine these estimates with data on campaign contributions to see whether donations affect the propensity to vote in support of the president. These results seem to show that Democratic senators adjust their support of President Bush's agenda in response to changes in presidential approval while Republicans are more responsive to donors.

Chapter 5 summarizes my findings, and discusses future avenues of research.

Chapter 2

2 Donors and Party Unity

Levels of dissatisfaction with government are at record highs, with just 12 percent of Americans indicating that they approve of the job that Congress is doing. In June of 2013, when asked why they were dissatisfied with Congress, voters were most likely to indicate that concerns over partisanship and gridlock were at the root of their dissatisfaction (Saad, 2013). Given that moderation and bipartisanship appeal to a wide swath of voters, why would legislators put their jobs in jeopardy by risking being perceived as a partisan hack?

One episode in the 108th Congress may illustrate a possible answer to this question. In November of 2003, the House was locked in a fierce partisan battle over whether to expand Medicare coverage, thus fulfilling a central piece of President Bush's legislative agenda. Stout opposition from Democrats forced Republican leaders to resort to extreme legislative tactics and aggressively twist arms in order to pass the bill (Mann and Ornstein, 2006). Following the vote, Republican legislators that were on the receiving end of this pressure indicated that the party leadership offered to help secure campaign donations in exchange for the votes necessary to pass the law (Mann and Ornstein, 2006).

The above anecdote nicely illustrates the potential solution to the puzzle of polarization. Namely, MCs may be more apt to vote with their party when they can obtain compensation for the increased electoral risk in which these tough votes place them. It stands to reason then, that if the ability of parties to compensate legislators for loyalty is growing, the overall cohesion of parties in the legislature should be increasing. This paper argues that this is in fact the case. Analysis of a dataset combining campaign finance data with roll call data will show that partisan donors actively reward legislators for partisan voting, and this relationship has been growing over time. Furthermore, donors disproportionately reward legislators from electorally safe districts. However, these effects seem to be concentrated in the Republican

party. Overall, the increasing ability of Republican donors to funnel money to incumbents provides a convincing explanation for increased partisanship and polarization in Congress.

2.1 Cross-Pressured Legislators

Mayhew (1974), famously observed that members of Congress are primarily motivated by reelection. To this end, MCs have designed institutional features of Congress to improve their electoral prospects (Mayhew, 1974). Clearly, one of the most important institutional features of Congress is the party system. Parties provide individual legislators with an inbuilt system of support to help achieve policy goals, as well as electoral goals (Aldrich, 1995). However, since parties are diverse organizations representing legislators from around the country, the interests of the party can sometimes be at odds with the interests of individual legislators. In these instances, Mayhew argues that MCs will primarily vote to please their constituency in order to avoid the wrath of voters. Empirically, evidence suggests that members of Congress are correct to be concerned about these votes, as just a single roll call vote can have significant effects on an incumbent's electoral margins (Bovitz and Carson, 2006; Nyhan et al., 2012).

Voting with the party offers clear benefits to legislators. Perhaps most importantly, partisan votes are frequently necessary to maintain control of the legislative agenda. Control of this agenda allows a party to avoid divisive votes, as well as avoiding any votes that would move policy from the preferred median of the party (Cox and McCubbins, 2005). Voting with the party makes it easier for a legislator's party to win these procedural, as well as substantive votes. Legislative victories have important electoral implications. When a party wins legislative votes, it increases party brand and reputation (Cox and McCubbins, 2005, 1993). Overall, accomplishing legislative goals and increasing party brand causes voters to perceive the party as being more competent, and therefore makes voters more likely to vote for the party's candidates (Butler and Powell, 2014). Positive voter evaluations ensure that a party's candidates are more successful in elections; in short, party wins help win elections (Lebo, McGlynn and Koger, 2007).

While Mayhew (1974) primarily discussed legislators that were cross-pressured on single issues, a legislator's entire voting history has important implications for his or her electoral performance. Downs (1957), in his seminal work, argued that being closer to the ideological center could provide electoral advantages. Theoretically, this would mean that legislators that had more moderate voting records (depending on the ideology of their district) would fare better in elections. Empirically, there is strong support for this model. At the voter level, voters are able to use roll call votes to infer incumbent ideology, which then affects the probability that voters vote for the candidate (Ansolabehere and Jones, 2010). Survey experiments show that candidates who are portrayed as being lockstep partisan voters are evaluated less favorably than candidates that are portrayed as being more bipartisan (Carson et al., 2010). At aggregate levels, this logic also holds, as representatives that are ideologically extreme and partisan have lower vote totals and a lower probability of winning (Canes-Wrone, Brady and Cogan, 2002; Carson et al., 2010)

The penalty that legislators pay for excessive partisanship creates a collective action dilemma for legislators and parties (Cox and McCubbins, 1993) . On one hand, MCs will see more success if their party is successful. On the other hand though, if MCs consistently vote for their party they are more likely to see penalties for being excessively partisan. In this situation, an optimal strategy for lawmakers is to attempt to free-ride (rely on other MCs to deliver the tough votes). Free-riding allows MCs to avoid the partisan hack label, while benefitting from the party's success. The downside to this approach is that enough lawmakers defect from the party, the party will not be effective in passing legislation. In order to overcome this dilemma, party members delegate decision-making authority to party leaders, particularly when policy preferences within the party are relatively homogenous (Aldrich and Rohde, 2000). However, party leaders are careful with how they use this power. Party leaders will encourage strategic shirking, and allow party members from vulnerable districts to defect from party votes in order to build an independent reputation (Lebo, McGlynn and Koger, 2007). Additionally, party leaders will time votes to minimize the

electoral consequences for members (Lindstädt and Vander Wielen, 2011).

2.2 Polarization

In recent years, the balance has shifted from legislators being independent to legislators reliably voting the party line. Overall, this has caused Congress to become more polarized. Ideologically, the two parties are further apart, and the frequency of party line votes has increased (McCarty, Poole and Rosenthal, 2006). Given that voters dislike overly partisan candidates, and moving to the middle can be a viable electoral strategy, this development is puzzling. A number of different explanations have been offered to explain this phenomenon.

One line of reasoning holds that polarization is a result of the geographic and ideological sorting of voters. At the individual level, a voter's partisanship is increasingly aligning with his or her ideology (Abramowitz and Saunders, 1998). So, conservatives are increasingly identifying as Republicans, while liberals are increasingly identifying as Democrats (Levendusky, 2009). This process is mirrored geographically, as Democrats are moving to areas with high levels of Democrats, and Republicans are moving to geographic locales that have more Republicans (Theriault, 2008; Tam Cho, Gimpel and Hui, 2013). These sorting effects may be aggravated by redistricting and partisan gerrymandering (Carson and Crespin, 2004), which may be making districts less competitive (Abramowitz, Alexander and Gunning, 2006). Overall, the effect of these sorting based changes would be to increase the distance between the median voter in each electoral district (Peress, 2013). Broadening distances between the median voters in each district would suggest that the polarization of the Congress is a reflection of broader trends in public opinion.

These bottom-up explanations of polarization may not be telling the complete story. For example, the extent to which the public is being polarized is not universally accepted by scholars. Fiorina, Abrams and Pope (2008) argue that citizen opinions on genuine policy issues have not actually polarized, and the magnitude of polarization may be overstated. Additionally, the geographic sorting of voters may not sufficiently explain the levels of polar-

ization that have been observed in Congress. Peress (2013) develops a measure of constituent ideology at the level of congressional districts. An analysis of this measure indicates that the polarization amongst voters may not be the primary driver of political polarization, as differences between the median voters in each district are not large enough to explain polarization in Congress. This finding is echoed by Bafumi and Herron (2010), who jointly scale the ideologies of representatives and voters to show that legislators are consistently more extreme than their constituents.

These findings suggest that a significant driver of polarization may be the influence of party activists. Activists play a central role in organizing and maintaining parties. For example, activists play a vital role by participating in primaries, and serving as the overall gatekeepers of who represent the party in general elections (Bawn et al., 2012; Karol, 2009). Activists also help select what issues and policies the party prioritizes. Theoretical work has shown that activists can help determine the structure of the party coalition, as well as how parties align on a multidimensional policy space (Aldrich, 1983; Miller and Schofield, 2003). Layman et al. (2010) look at the attitudes of party activists and find empirical evidence for the importance of activists, as survey evidence shows that activists have adopted extreme stances across a broad range of issues. This prompts politicians to adopt extreme positions as well in order to secure the support of activists in primaries (Aldrich, 1983; Miller and Schofield, 2003). Partisan identifiers observe these elite shifts in opinion, and then alter their own attitudes to align with their party through the process of party extension (Layman and Carsey, 2002).

One important linkage between activists and politicians is through the primaries. However, the need for politicians to secure resources provides another potential linkage. In fact, party scholars argue that activists are a crucial source of resources for parties and politicians (Aldrich, 1995). Candidates use these resources (particularly donations) to pay for campaign essentials, like consultants, pollsters, organizers, and activists (Aldrich, 1995). In turn, these resources are pivotal in helping candidates win the general election. Huber and

Arceneaux (2007) exploit discontinuities between media markets and battleground states to show that campaign advertisements are quite effective in persuading voters to support candidates. Work by Gerber (1998) uses an instrumental variable approach to show that greater levels of spending by candidates are associated with increased vote shares. Finally, having a large war chest may help incumbents deter quality challengers from entering races (Jacobson, 2010; Box-Steffensmeier, 1996). In short, having more money helps parties and candidates win elections.

Scholars have recently begun to examine the ways in which the need to appeal to these donors have affected parties in Congress. Theoretical work shows that parties may make extremist appeals to activists in order to raise money for the purpose of increasing the electoral competitiveness of the party (Schofield, 2003). Empirical work by Jenkins and Monroe (2012) shows that partisan donors are vital in maintaining control of the legislative agenda. This is because leadership PACs compensate moderate party members for the policy losses they experience due to negative agenda control. Work on state legislatures provides strong support for the contention that donors are aiding polarization. Barber (2016*b*)looks at variation in campaign finance and polarization at the state level. Donors may be particularly important in polarization as states that have laws that favor individual donations have higher levels of legislative polarization (Barber, 2016*b*).

All told, the electoral advantages that money bestows on candidates, coupled with the importance of party activists, suggests that donations may be one important way in which activists are incentivizing MCs to toe the party line. If members do incur electoral penalties for being overly partisan, they can then use the additional amount of money coming in from donors to offset the negative consequences of their extremity. Increases in these rewards would help explain the polarization present in Congress. This leads to my first hypothesis:

H1: *Party members that are loyal will receive higher levels of donations.*

While donors will seek to reward members for toeing the party line, there are also reasons to believe that donors will be strategic with their rewards. Research on access oriented

donors has found that donors strategically target friendly legislators (Austen-Smith and Wright, 1994), who are well situated to influence policy outcomes (Romer and Snyder Jr., 1994; Wright, 1990). Parties themselves are also strategic with their roll call behavior, and strategically release vulnerable MCs on tough party line votes (Lebo, McGlynn and Koger, 2007). It stands to reason then, that partisan donors will alter their rewards based on the electoral risk of the legislator. First, legislators from competitive districts will be involved in close races. Close races generally involve higher levels of campaign spending from both the challenger and incumbent (Jacobson, 1990). Second, the penalties for excessive partisanship differ as a function of the partisanship of the district; legislators from districts where they have a partisan advantage pay a lower price for excessive partisanship than for MCs from moderate districts (Carson et al., 2010). Overall, since legislators from marginal districts experience greater penalties for excessive partisanship, strategic donors may be more forgiving. It would not make sense to pressure MCs and weaken their electoral position, and ultimately risk losing control of the chamber. At the same time, MCs from safer districts may have fewer excuses to provide to partisan donors for defecting. This leads to my second hypothesis:

H2: *The rewards for party loyalty will be greater for members from safe districts than for members from marginal districts.*

In addition to the role that party activists are playing in driving polarization, there are strong reasons to suspect that the influence activists exert on parties is greater for Republicans than for Democrats. First, Republican identifiers in the electorate have attitudes that are more responsive to policy changes than Democrats (Ura and Ellis, 2012). This responsiveness is likely to carry over to donor responses to roll call votes. Second, analysis of party networks for both parties finds that the Republican party has a tighter, more hierarchical structure than the Democrats (Skinner, Masket and Dulio, 2012; Koger, Masket and Noel, 2009). Finally, observers of Congress have noted that Republicans have been quicker to discard historic legislative norms in pursuit of their legislative agenda (Mann and

Ornstein, 2013). This leads to my last hypothesis:

H3: *The rewards for party loyalty will be greater for Republicans than for Democrats.*

2.3 Data

My first hypothesis argues that party activists and donors will reward loyal members of Congress with greater levels of resources. To operationalize this concept, I use the total sum of donations that a member of Congress received in a given quarter from individuals and PACs. [3] These data were obtained from the Database on Ideology, Money in Politics and Elections (DIME) (which in turn drew these data from the Federal Elections Comission (FEC) database). This database contains information on each contribution that was made to federal candidates for political office exceeding 200 dollars. Candidates are required to report these contributions each quarter in order to comply with federal election laws. These reports should be credible, as there are legal penalties for failing to comply with disclosure requirements. Disclosure reports provide details on when the contribution was received, how much money was donated, and details on the individuals that made the contribution (Bonica, 2013). In order to account for inflation, the consumer price index is used to adjust the donations to 2012 price levels.[4]

Aggregation at the quarterly level is beneficial for a number of reasons. First, the FEC has quarterly reporting requirements. Lower levels of aggregation might introduce noise from these reporting requirements into the analysis. Furthermore, roll call votes were held for all but one quarter in my analysis. This was not the case for lower levels of temporal aggregation. Aggregating to the quarterly level avoids many missing data problems. Another approach would be to aggregate to an ever higher level, like year or congress. However, doing so would lose important dynamics present in higher resolution data. Donors should quickly reward legislators for their donations for two reasons. Most importantly, money has

[3]FEC transaction codes: 10, 11, 15, 15E, 15J, 22Y, 24K, 24R, 24Z

[4]I adjusted for each quarter by averaging the monthly CPI index estimates for each quarter, and then using the quarterly average of the month to adjust each quarter into the equivalent of December 2012 dollars.

a deterrent effect for challengers (Box-Steffensmeier, 1996). In order to deter challengers seeking to challenge out of step lawmakers then, donors would have to be quick to reward loyal legislators. Second, from a legislator's standpoint, promises of future donations during the election are plagued by a commitment dilemma. If partisan donors primarily seek to advance the interests of the party, then what happens if the tough votes make the reelection of the incumbent completely unfeasible? In this case, donors may be tempted to abandon a sinking ship and concentrate their resources elsewhere. From a legislator's perspective then, only donations around the time of the votes should be useful. Quarterly data will be able to capture this dynamic, while higher levels of aggregation will not.

The primary independent variable is party loyalty. To operationalize party loyalty I simply sum the number of times an MC voted with his or her party each quarter, and divide that by the total number of votes that MC participated in during the quarter.[5] I use observations from the first quarter of 1980 to the last quarter of 2012. Quarterly aggregation was especially helpful for this measure, as there was only one quarter in which no roll call votes were held.[6] Party unity ranges from 0 to 100 percent, with a mean of about 89 percent. It is expected that as legislators increase their unity, they will receive greater amounts of monetary donations. These data are from Keith Poole's voteview site.

A number of possible other factors may influence the fundraising success of members of Congress. For example, investment and access-oriented donors may favor majority party incumbents. To account for these factors, I include a dummy variable that controls for majority status. Additionally, the McCain-Feingold act drastically changed how parties and candidates financed their campaigns, so a dummy variable for this law is included in the models (La Raja, 2008). Finally, at the legislator level, it is possible that legislators that are naturally more extreme have fundraising advantages from ideologically oriented donors. In

[5]Legislators that were absent from the session for more than 4 quarters are excluded from the analysis. Additionally, due to his presidential run, I exclude Ron Paul from 2008 to 2012. During his runs for president he raised enormous sums of cash, and these observations were extreme outliers.

[6]In the 4th quarter of 1996 there were no roll call votes. To calculate estimates for this quarter I simply take the average of the third quarter of 1996 and the first quarter of 1997 for each individual legislator

order to account for this natural extremity, I include first dimension DW-Nominate scores to control for extremity.

Previous research has shown that party victories on roll call votes increase perceptions of party competence (i.e. a better party brand) and increase the electoral prospects of the party (Butler and Powell, 2014; Carson et al., 2010; Cox and McCubbins, 2005). However, it remains to be seen whether these increases in party brand translate to concrete advantages in the resources available to members of the party. In order to account for this possibility, I operationalize party victories as the percentage of times the majority of the party voted on the winning side in a roll call vote and include it in my models. This will help measure whether legislative success uniformly helps the fundraising prospects of all party members.

My second hypothesis postulates that donors will condition their rewards for loyalty based on the electoral risk. Overall, excessive party voting should be riskier in districts that are electorally competitive. To operationalize this, I will use estimates of district partisanship as well as presidential vote share. District partisanship data are from Kernell (2009), who uses local and federal elections to derive more precise estimates of partisaship.[7] The presidential vote share variable uses the two-party presidential vote share from the most recent presidential election.[8] It is coded so that higher values indicate a greater percentage of individuals voted for the Democratic nominee for president. To test whether donors condition their rewards based on loyalty, I simply interact these variables with individual party loyalty.

2.4 Methods

The data consist of quarterly observations of legislators from 1980 to 2012. This creates an unbalanced panel of legislators due to the retirements and electoral losses. One problem with panel data is that observations are clustered both by individual and by time. This could cause inferential problems, as errors are likely to be correlated by legislator and time period.

[7]Obtained from the DIME database. Coded so that higher values indicate a more Republican district.
[8]Obtained from the DIME database.

The correlation of the errors is problematic in that it can result in incorrect estimates of standard errors (Fox, 2008). Multilevel models can account for errors that are correlated within time points (Shor et al., 2007).

However, the time series nature of the data causes other threats to inference. With these data, it is highly probable that observations at time t are correlated with observations at *t+1*. This is particularly problematic because failing to account for autocorrelation in data can bias the estimates of standard errors downwards, greatly increasing the probability of a type one error (Enders, 2008). Additionally, there are strong reasons to suspect the existence of trends in these data, as aggregate donations are likely to trend upward as an elections approach.

In order to correct for potential autocorrelation, I employ an ARFIMA-MLM model, which is recommended by Lebo and Weber (2014). This method entails aggregating donations by time point. ARFIMA models are then fit to the aggregated series to remove the deterministic component of the data from the series (for the dependent variable). Individual level data is purged of autocorrelation by centering around the filtered mean. This gives equation 1, where y_{it}^{**} denotes the filtered observation at time t, $\overline{Y}_t$ is the mean at time t, y_{it} is the individual observation at t, and $\overline{Y}_t^*$ is the filtered mean.

$$y_{it}^{**} = y_{it} - (\overline{Y}_t - \overline{Y}_t^*) \tag{1}$$

This creates the dependent variable for use in the analysis. Autocorrelation for the party unity variable is handled by aggregating to the quarterly level to create a level-2 variable, then mean centering individual observations by quarter. This will be denoted as x_{it}^{**} ARFIMA models are fit to level 2 independent variables to ensure these are cleansed of autocorrelation. A regular multilevel model can then be fit using these filtered data. This gives equation 2, below, where α_{1t} is the intercept. This intercept varies as a function of level 2 variables, as shown in equation 3, where γZ_t^* denotes the filtered level-2 covariates. μ_{2it} denotes the error term for the level 2 equation while μ_{1it} denotes the error term at the individual level (Lebo

and Weber, 2014). Combining these equations gives equation 4

$$y_{it}^{**} = \alpha_{1t} + \beta_1 x_{it}^{**} + \mu_{1it} \tag{2}$$

$$\alpha_{1t} = \alpha_2 + \beta_2 \overline{X}_t^* + \gamma Z_t^* + \mu_{2t} \tag{3}$$

$$y_{it}^{**} = \alpha_{1t} + \beta_1 x_{it}^{**} + \mu_{1it} + \beta_2 \overline{X}_t^* + \gamma Z_t^* + \mu_{2t} \tag{4}$$

Perhaps the most useful aspect of this approach is the flexibility it gives in modeling level-1 variables in different groups. Functionally, this allows the relationship between loyalty and donations to vary by each period (Gelman and Hill, 2007). This should make it easy to discern whether activist donors have been acquiring more influence over time. This varying coefficient model is denoted in equation 5, where δ_t specifies time varying coefficients (Lebo and Weber, 2014).

$$y_{it}^{**} = \alpha_{1t} + \beta_1 x_{it}^{**} + \delta_t w_i t + \mu_{1it} \tag{5}$$

The key benefit of these models is that they allow for the examination of how different aspects of the relationship between donors and legislators is evolving over time. For example, it might be the case that more money is affecting all MCs in the party, and driving a universal increase in the unity of the party. The coefficient on $\overline{X}_t^*$ (filtered aggregate donations) would capture this dynamic. It could also be the case that donors are increasingly tying their donations to higher levels of individual level loyalty. In this case, we may not see a rise in the amount of money MCs as a whole receive. However, the distribution of funds will increasingly skew towards the most loyal MCs. This dynamic would be picked up by the estimated coefficients on x_{it}^{**}.

In these multilevel models I allow the intercepts to vary by legislator and time period. In

order to observe whether the relationship between loyalty and donations has been evolving over time, I allow the slope on loyalty to vary by quarter. Allowing the intercepts to vary should help account for any group level heterogeneity in the model (Gelman and Hill, 2007).

In order to test my 3rd hypothesis, I subset legislators by party. This subsetting should help illuminate any differences between the Republican and the Democratic party. If the Republican party activists are driving polarization, it would be expected that the coefficient on individual level loyalty would increase over time for Republicans while remaining relatively steady for Democrats.

2.5 Results

Table 2.1: ARFIMA-MLM Model for Donations to Incumbent House Republicans

	β **(SE)**
Loyalty Within	748.971***
	(212.661)
Loyalty Between	222.095
	(1557.694)
Constant	123036.300***
	(6936.825)
N	18549
Log Likelihood	-243936.200
AIC	487888.400
BIC	487951.000

***p < .01; **p < .05; *p < .1

Table 2.1 shows the results of the ARFIMA-MLM model for Republicans. This model regresses the double filtered individual aggregate donations on mean centered loyalty. There is a positive and significant coefficient on the within quarter party loyalty coefficient. Substantively, this means that when a Republican MC has higher levels of party loyalty relative

to his or her peers, he or she can expect to see increased amounts of donations. Conversely, donors may be punishing defection on roll call votes by turning off the spigot. This offers support for the hypothesis that members of Congress can be rewarded for loyalty. Essentially, a Republican member of Congress can toe the party line, and then expect to have a larger war chest to aid in his or her reelection. Interestingly, the effect for changes in between quarters party loyalty is insignificant. It appears that Republican donors are not universally rewarding the Republican party for increased loyalty. Instead, donors may be promoting unity by funneling money to only the most loyal members.

Table 2.2 shows the results of the more complex model for Republican MCs. This model adds a variable that examines the effects of successfully passing bills that the majority of the Republican caucus in the House supports.[9] Additionally, the extra control variables are in the analysis. After the addition of the control variables, the coefficient on within quarter loyalty remains both statistically and substantively significant. However, the between quarter effects of loyalty remain insignificant. The addition of the party win percentage variable allows for tests of whether wins in Congress affects fundraising for incumbents. The coefficient on the DW-nominate variable is is negative and significant. This suggests that the most extreme Republicans experience a fundraising advantage. However, it should be noted that even the inclusion of DW-Nominate, which uses roll call votes from the entire session to estimate extremity, does not drown out the effect of a representatives quarterly loyalty. Overall this suggests that there is room for legislators to alter their loyalty over the course of a Congress to achieve fundraising advantages.

Democrats have a far different relationship with party loyalty than Republicans. The first, and most important difference is that the average effect for loyalty within quarters is insignificant for Democrats. Even after adding in the control variables, within quarter loyalty remains insignificant. The insignificant coefficient on the between quarter loyalty coefficient

[9] Amount, loyalty and wins had respective D values of .5, .4, and .75. AR(1) and SAR(1) parameters were added to deal with any residual autocorrelation, and any seasonal autocorrelation. PACF graphs of the filtered data are available in the appendix to this chapter.

Table 2.2: ARFIMA-MLM for Donations to Incumbent House Republicans with Control Variables

	β **(SE)**
Loyalty Within	831.961***
	(199.014)
Between Quarters:	
Loyalty Between	−1151.855
	(710.047)
Republican Wins	171.168
	(246.888)
Majority Party	−655.197
	(5078.935)
DW-Nom 1st Dimension	−54739.580**
	(22359.690)
McCain-Fein	−7196.148
	(5510.137)
Constant	37721.860***
	(10270.610)
N	19870
Log Likelihood	-261001.300
AIC	522024.500
BIC	522111.400

***p < .01; **p < .05; *p < .1

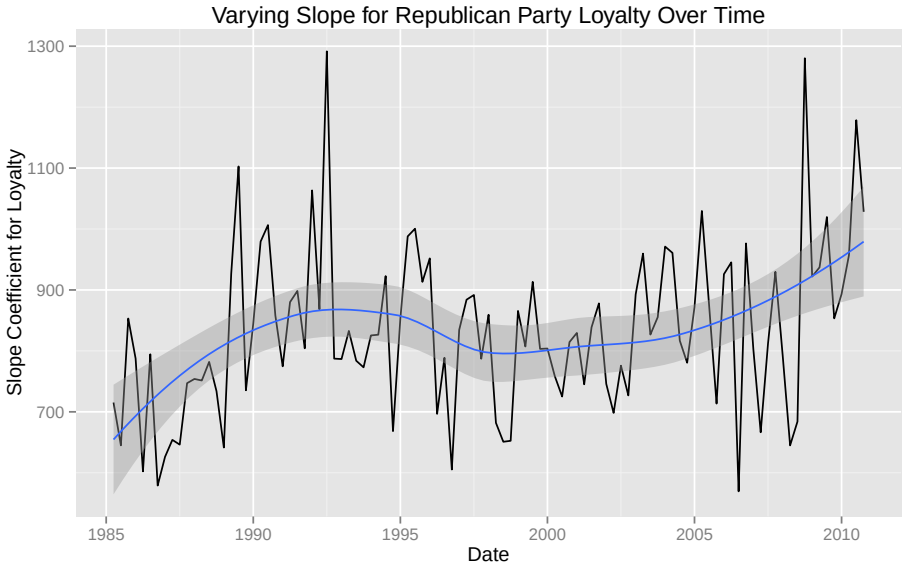
Table 2.3: ARFIMA-MLM Models for Donations to Incumbent House Democrats

	Donations	
	Model 1	**Model 2**
Loyalty Within	-64.944	91.149
	(182.723)	(185.178)
Between Quarters:		
Loyalty Between	-1228.637	-1651.965
	(1063.176)	(1169.686)
Majority Party		-6491.789
		(5930.438)
DW-Nom 1st Dimension		107469.400***
		(23048.560)
McCain-Fein		2.812
		(6558.264)
Dem Win		328.061
		(308.752)
Constant	11445.280**	51737.420***
	(4727.156)	(10025.950)
N	22908	22908
Log Likelihood	-301184.100	-301135.600
AIC	602384.200	602295.200
BIC	602448.500	602391.700

***p < .01; **p < .05; *p < .1

means that Democrats do not receive collective benefits from increasing unity as a whole. Democrats do not seem to gain any collective monetary benefit from successfully passing legislation either, as the coefficient on win percentage does not attain statistical significance.

Figure 2.1: The Time-Varying Effects of Party Loyalty on Donations to Incumbent House Republicans

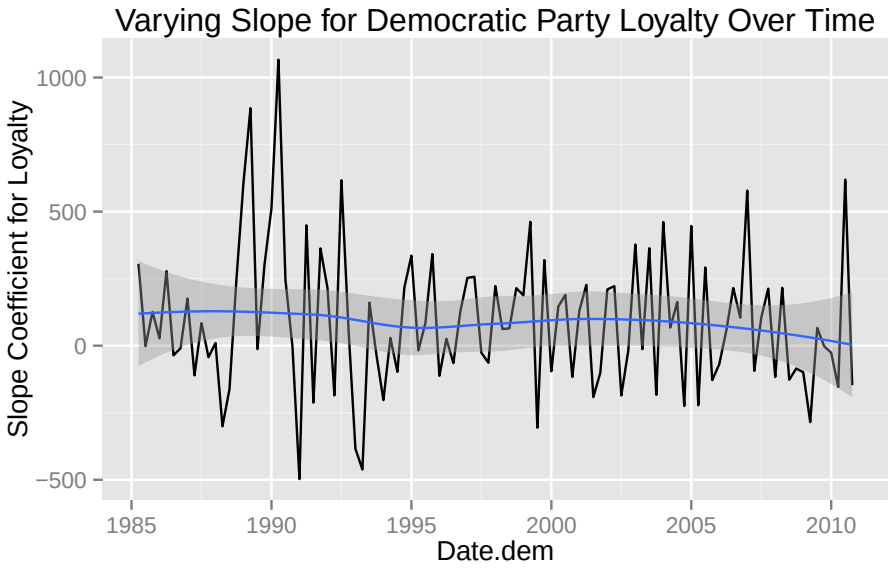


Note: The line and shaded region represents a LOESS smoother for the coefficient on party loyalty. The coefficient varies by quarter and shows the expected change in quarterly donations for a one percentage point change in loyalty.

In the models for Democratic MCs and Republican MCs, the coefficient on within quarter loyalty is allowed to vary by quarter. This allows for an examination of how the relationship between loyalty fundraising has changed over time. Figure 2.1 shows the time-varying effects of party loyalty on donations (with all included controls). The black line shows the estimated coefficient for the relationship between party loyalty and donations during each quarter. A Loess smoother is also included to aid in the interpretation. The most interesting feature of this graph is how the magnitude of the coefficient has increased over time. During the 1980s the strength of the relationship increases, levels off in the 90s, and begins to increase again in the 2000s. When considered with the polarization occurring during this time period, this suggests that activist donors in the Republican party may be playing a considerable role in

driving polarization.

Figure 2.2: The Time-Varying Effects of Party Loyalty on Donations to Incumbent House Democrats



Note: The line and shaded region represents a LOESS smoother for the coefficient on party loyalty. The coefficient varies by quarter and shows the expected change in quarterly donations for a one percentage point change in loyalty.

Figure 2.2 shows how the relationship between fundraising and loyalty varies for Democratic incumbents over time. The first notable aspect of this graph is how the relationship between loyalty and fundraising is flat over time. Additionally, the coefficient is insignificant and is almost half the size of the coefficient for Republicans. In fact, the slope coefficient somewhat regularly dips below zero, a situation that never arises for Republicans.

2.6 Electoral Risk and Donor Rewards

Earlier I predicted that parties will seek to reward their members for loyalty on roll call votes. This may be to compensate MCs for the electoral costs they may incur for being perceived as overtly partisan. However, there is likely considerable heterogeneity in the risks that members are exposed to due to excessive partisanship. In order to assess whether donors

account for electoral risk, I add in the variable that accounts for district partisanship, and then interact this with the loyalty variable. It is coded so that higher values indicate a more Republican district.[10]

Table 2.4 shows the results of this analysis for both Democratic and Republican incumbents. When we look at the interaction term for Republicans, we can see that the effect is both positive and significant. Functionally, this means that as a district becomes more Republican, the rewards for being a loyal Republican increase. Looking at the model for Democrats, the same effect is present. The coefficient on the interaction term for Democrats is both negative and significant. This means that as a district becomes more Democratic, the rewards for being a loyal party member become greater. Again, this suggests that party donors may heap the greatest rewards on those most likely to defect in order to ensure their legislative loyalty.

In Figures 2.3 and 2.4 we can see how the relationship between loyalty and donations changes for Republicans in safe and marginal districts. Districts in which the Republican candidate for president received at least 55 percent of the vote in the last presidential election were coded as safe, while those in which the Republican candidate for president received less than 55 percent of the vote were coded as marginal.[11] The graph for marginal Republicans does not show much interesting movement. If anything there is a slight decline in the benefits for marginal Republicans in recent years.[12] However, the graph showing the relationship between loyalty and money for safe Republicans shows significant activity. First, the slope coefficients for marginal Republicans have a larger magnitude than the slope coefficients for marginal Republicans. Secondly, the strength of the relationship between safe Republicans and party loyalty has strengthened in recent years. It appears that Republican donors have become increasingly adept at rewarding secure Republican MCs for delivering votes.

[10]I also used presidential vote share as a measure of district partisanship. All results were similar.

[11]The ARFIMA-MLM double filtering was conducted on all Republican MCs. Subsetting was performed after the double filtering

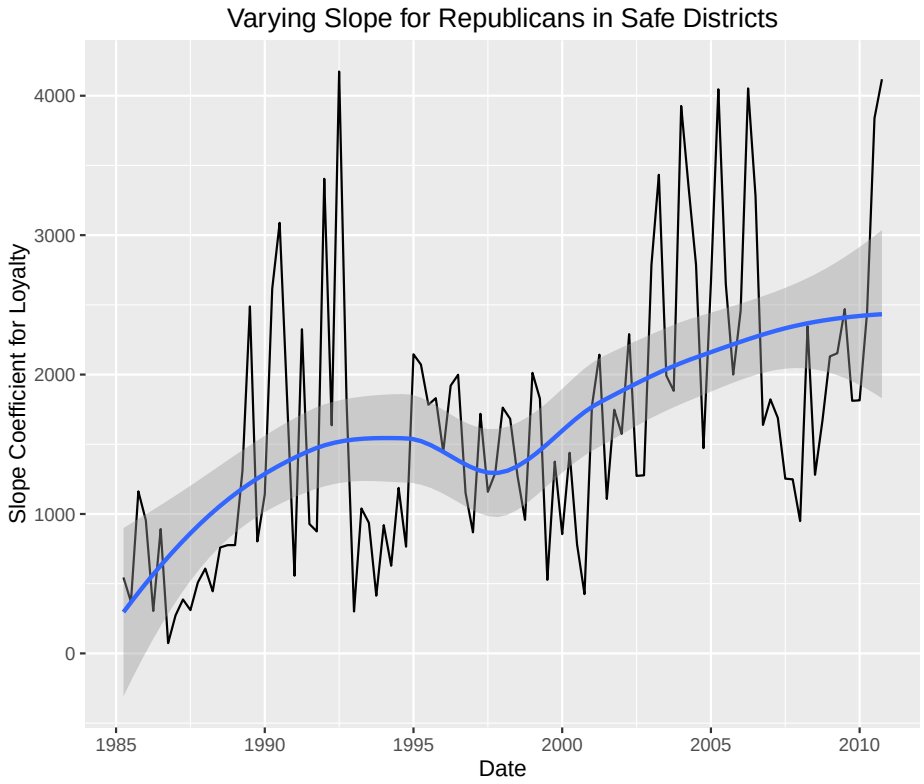
[12]I also looked at graphs that used Kernell's measure of district partisanship. The resulting graphs were similar. Interpretation of presidential vote-share is more inuitive in this case.

Table 2.4: ARFIMA-MLM for Donations to Incumbent House MCs by Party: Including Interaction with District Partisanship

	Donations	
	Republicans	**Democrats**
Loyalty Within	307.280	−85.027
	(247.989)	(191.193)
District Partisanship	−31566.640***	15743.530***
	(3660.076)	(2529.268)
Between Quarters:		
Dem Win		394.161
		(312.152)
McCain-Fein	−9086.761*	−409.061
	(5481.980)	(6594.787)
Loyalty Between	−880.278	−1624.340
	(700.286)	(1179.551)
DW-Nom 1st Dimension	32.948	33834.450
	(22373.080)	(25390.920)
Rep Win	126.458	
	(244.137)	
Majority Party	−978.982	−5905.598
	(5059.575)	(5969.217)
Loyalty X District Partisanship	1087.207***	−619.518***
	(297.808)	(171.593)
Constant	33386.010***	31641.090***
	(10019.750)	(10409.600)
N	19870	22876
Log Likelihood	-260941.400	-300673.800
AIC	521910.800	601375.600
BIC	522021.300	601488.200

***p < .01; **p < .05; *p < .1

Figure 2.3: The Time-Varying Effects of Party Loyalty on Donations to Safe Incumbent House Republicans



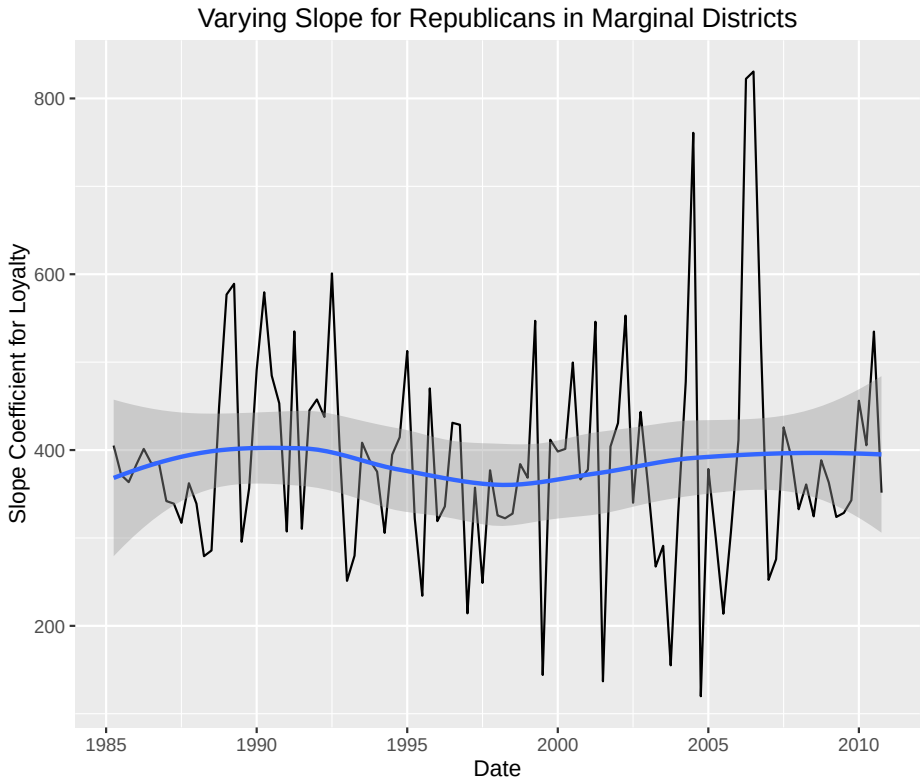
Note: The line and shaded region represents a LOESS smoother for the coefficient on party loyalty. The coefficient varies by quarter and shows the expected change in quarterly donations for a one percentage point change in loyalty.

The sharp increase on this coefficient over time suggests that this is a significant driver of Congressional polarization.

Figures 2.5 and 2.6 show how the relationship between loyalty and donations has evolved for Democrats in safe and marginal districts.[13] A quick glance at these graphs reveals a number of differences between Democrats and Republicans. First, and most strikingly, is the penalty that Democrats in marginal districts pay for party loyalty. For the most of the quarters the coefficient on individual loyalty both is negative and large. Safe Democrats on the other hand do appear to receive a reward for their loyalty. However, unlike Republicans

[13]Safe districts are districts that had at least 55 percent of the district vote for the Democratic nominee for president in the previous election

Figure 2.4: The Time-Varying Effects of Party Loyalty on Donations to Vulnerable Incumbent House Republicans



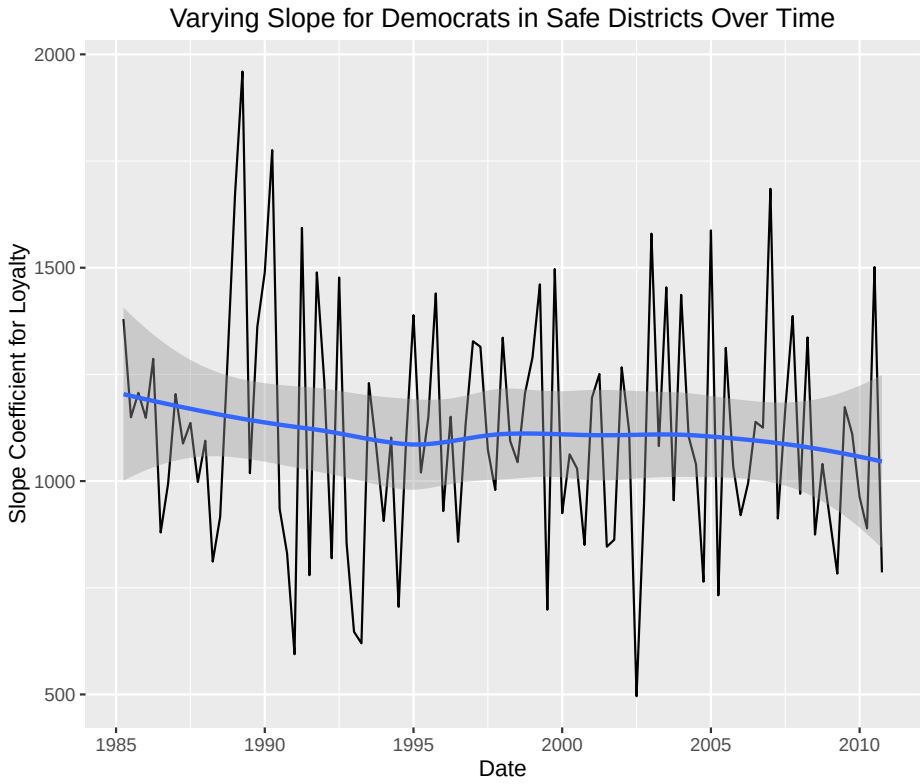
Note: The line and shaded region represents a LOESS smoother for the coefficient on party loyalty. The coefficient varies by quarter and shows the expected change in quarterly donations for a one percentage point change in loyalty.

the slope on this line is relatively flat over time. This suggests that Democratic donors have been consistent with their donation strategies. Any increases in party loyalty for the Democrats may not be driven so much by changes in the behavior of activist donors, instead these changes may be through alternative routes.

2.7 Discussion

Overall, in this paper, I show that donors are rewarding select categories of legislators for their loyalty. This result helps to explain an important piece of the polarization puzzle. Namely, previous work has shown that roll call extremity makes reelection more difficult

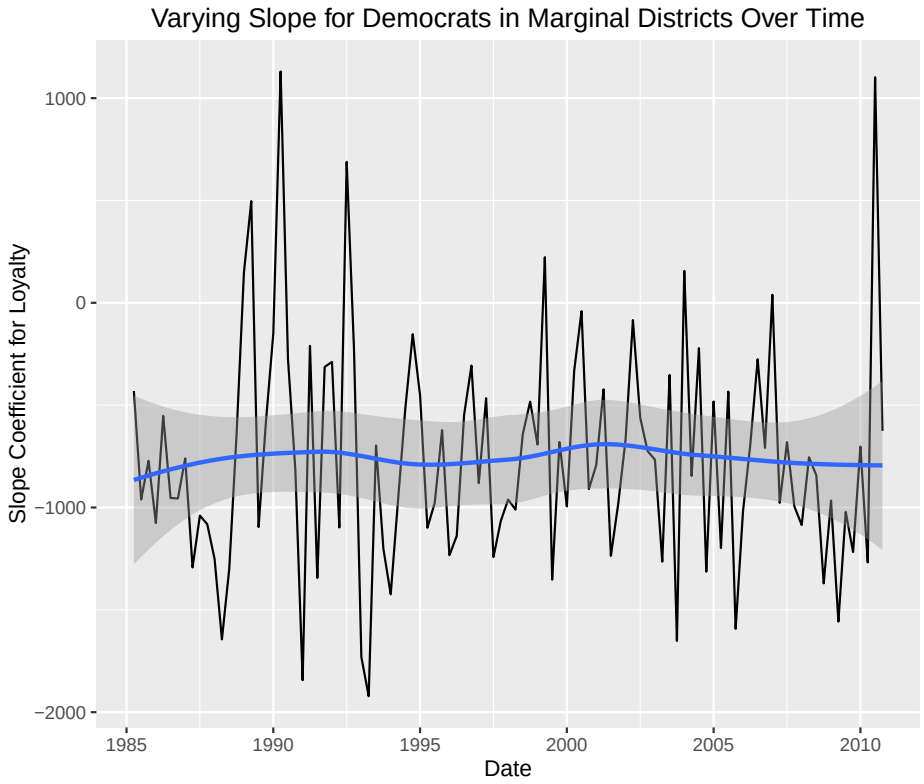
Figure 2.5: The Time-Varying Effects of Party Loyalty on Donations to Safe Incumbent House Democrats



Note: The line and shaded region represents a LOESS smoother for the coefficient on party loyalty. The coefficient varies by quarter and shows the expected change in quarterly donations for a one percentage point change in loyalty.

for incumbents (Canes-Wrone, Brady and Cogan, 2002; Carson et al., 2010). If excessive partisanship is electorally risky, then reelection-minded politicians should be avoiding the behavior. The rewards that partisan donors bestow on politicians for loyalty would allow these politicians to defray the cost of this loyalty. Furthermore, the rewards for party loyalty are greater as electoral safety increases. This suggests party donors are strategic with their rewards; donors let vulnerable members off the hook to grant them the freedom to choose the most electorally while carefully holding safe politicians accountable. This effect though, is concentrated in the Republican party; particularly for Republicans from safe districts. Additionally, the modeling technique I employed allowed me to examine how the relationship between loyalty and donations has changed over time. Looking at these changes, it is clear

Figure 2.6: The Time-Varying Effects of Party Loyalty on Donations to Vulnerable Incumbent House Democrats



Note: The line and shaded region represents a LOESS smoother for the coefficient on party loyalty. The coefficient varies by quarter and shows the expected change in quarterly donations for a one percentage point change in loyalty.

that the most significant changes have occurred in the rewards that Republican donors bestow on loyal party members from unsafe districts. This relationship has sharply strengthened over time. Overall, this is strong evidence that Republican donors are driving polarization by increasingly holding safe Republicans accountable for their votes.

While these findings offer strong support for donor led polarization, the precise dynamics of this relationship are still unclear. For example, the role that roll call voting plays in the financing of challengers is unclear. Incumbents that have extreme voting records may look vulnerable to the opposition party. In turn, this vulnerability would attract quality challengers and resources to contest the vulnerable seat. Alternatively, party donors may wish to make the loyal incumbent look strong by having a large war chest and deter quality chal-

lengers from entering. However, regardless of the precise reason donors donate to candidates, these donations should have the effect of counterbalancing the penalties for partisanship by increasing the probability that a candidate wins reelection.

The asymmetry between the parties is particularly interesting. The differing donor bases may be one source of this asymmetry. For example, it is likely that wealthier donors favor the Republican party. One speculative explanation is that the increased rewards for Republicans may simply be a function of inequality. As wealth concentrates in the upper strata of society, these wealthier individuals have more money to donate to politicians that align with their beliefs. If wealthier individuals tend to be Republican, these partisan donors may be able to bestow increasingly large rewards on loyal Republicans. Further research into this phenomena may prove to be useful.

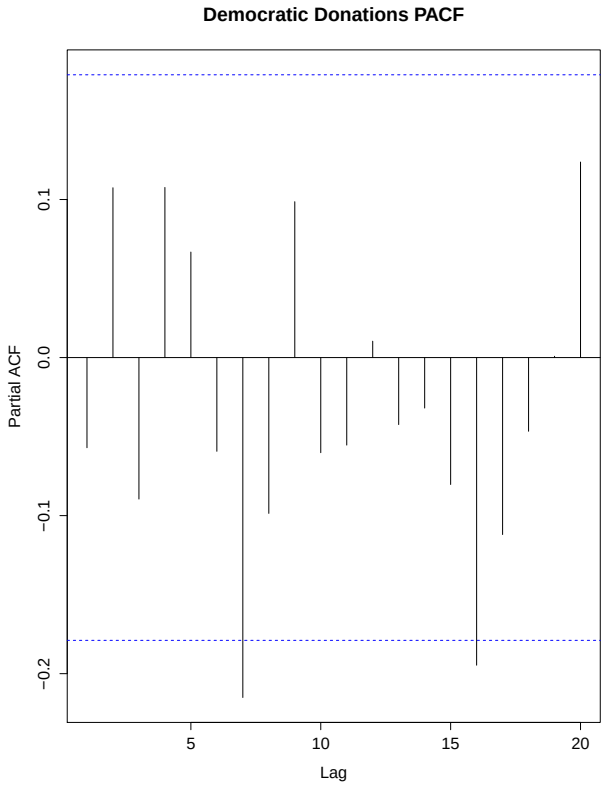
The asymmetry between the Democratic and Republican parties also has important implications for future legislative battles. In short, it would appear Democrats have an uphill battle to fight when trying to maintain their unity to win legislative battles in Congress. Members of the Republican leadership, echoing their actions during the battle over Medicare D, can count on donors to help maintain loyalty. Democrats on the other hand, have not seen a corresponding increase in their ability to pull rogue legislators into the party fold. Instead of being able to promise loyal legislators campaign riches, Democratic party leaders likely have to resort to other tactics, like promoting the strategic defection of legislators, or strategically timing votes, in order to remain electorally competitive. Functionally, this may pull policy towards Republican preferences as Democrats may have to make ideological compromises to assemble enough votes to pass a law while Republicans can depend on their donors to offset the costs of rough legislative battles.

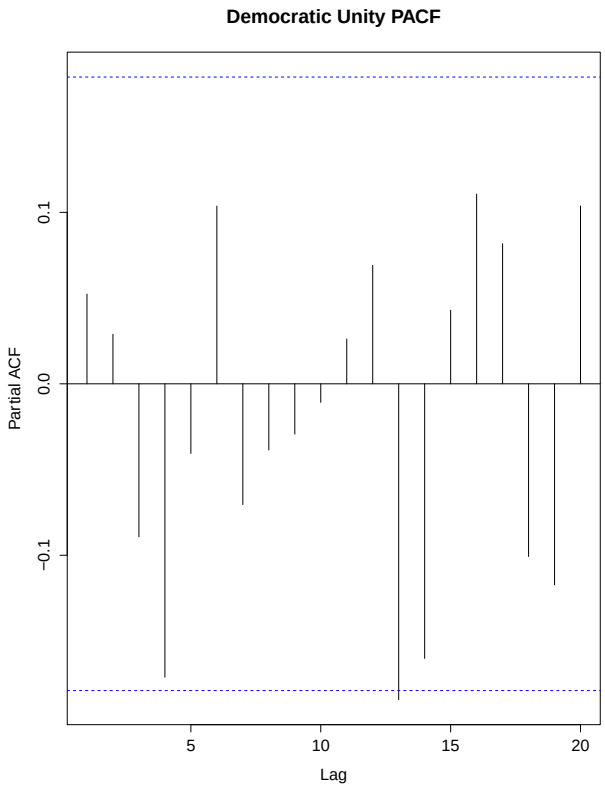
Finally, changes to campaign finance laws mean that the relationship between fundraising and party loyalty may become even more intertwined in the future. For example, the *McCutcheon* decision removed restrictions on the number of candidates that individuals could donate to over the course of an election cycle. Functionally, this means that incumbents

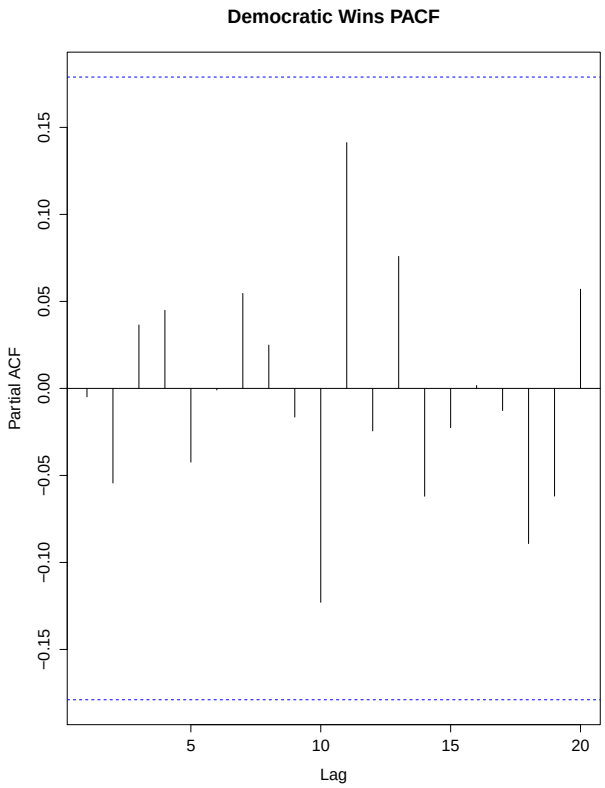
have an even deeper pool of available partisan donors to tap into to enforce loyalty. However, the results of this paper indicate that the dynamics of donor-legislator relations need to be considered in addition to the overall amount of money entering the system. The fact that the amount of money raised by incumbents is not affecting overall levels of party unity suggests that simple efforts to curb the amount of money in politics would not be able to limit polarization. Instead, changes that affect how legislators and donors interact may affect levels of polarization. Conversely, if donors themselves are becoming more ideological, there may be little that changes to campaign finance laws can do to stem political polarization.

2.8 Chapter 2 Appendix

Below are figures that show the partial autocorrelation graphs for the fractionally differenced aggregate variables.




Democratic Unity PACF
Partial ACF
0.1
0.0
−0.1
5
10
15
20
Lag


Democratic Wins PACF
Partial ACF
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
5
10
15
20
Lag

Chapter 3

3 Campaigning and Voter Beliefs

While politicians have become more polarized, voters maintain a healthy dislike of excessive partisanship in Congress. In fact, this extreme partisanship has lead to record low levels of approval for Congress. Classical Downsian models of voting suggest that voters should be punishing parties for becoming more extreme. However, this is clearly not the case. In this section of my dissertation, I seek to explain how politicians can escape the consequences of having extreme voting records. I argue that MCs can use campaign advertising to alter how voters perceive their relative ideological positioning. When an incumbent has a substantial advertising advantage, constituents will view that incumbent as having an ideology closer to their own. Overall, these effects can serve as an offset to extreme voting behavior in Congress (though it appears this does not entirely offset the effects of being out of step). When taken in conjunction with the findings of my previous chapter, this provides the crucial link to donor driven stories of polarization. Incumbents can adopt extreme voting behaviors in order to raise more money from donors, and then use these funds to increase their vote share by influencing how voters perceive their extremity.

To explore this question, I use a novel dataset that combines data on candidate advertising with survey data on perceptions of incumbent ideology. Survey questions about congressional roll call votes allow me to estimate the ideology of both MCs and survey respondents on the same scale. These data show that candidate voting records have considerable impact on voter perceptions of an incumbent's ideology.[14] However, when voters are exposed to a higher proportion of advertisements aired by an incumbent they perceive the incumbent to have a closer ideology. My analysis indicates that this may be because an incumbent advertising advantage causes voters to have favorable assessments of the incumbent's valence

[14]Which is in line with results from other scholars (Gronke, Koch and Wilson, 2003)

characteristics, which may cause voters to project the ideology of the incumbent closer to themselves.

3.1 Spatial Voting

The spatial voting model has long been used by political scientists to explain voter voting decisions. Spatial voting posits that voters have ideological preferences (generally on one dimension) and that politicians adopt a package of policies that place themselves along this ideological spectrum. Voters consider the overall ideology of candidates and parties, and then vote for the candidate that is closest to them ideologically. An important implication of this model is that candidates and parties can increase their chances of winning elections by moving to the center of the ideological spectrum (Downs, 1957). Viewed through this paradigm the sharp political polarization of recent Congresses is especially puzzling, as extremity should decrease competitiveness in elections.

Empirical evidence suggests that ideological positioning has a substantial impact on legislators. Studies that look for ideological correspondence between districts and their legislators find that ideology of a district is related to the ideology of the represenative (Erikson and Wright, 2000). Research on ideological congruence at aggregate levels indicate that legislators at different levels of government are responsive to public opinion and that politicians adjust policy in response to changes in public ideology (Erikson, Wright and McIver, 1994; Stimson, MacKuen and Erikson, 1995). This may be driven by electoral factors as legislators that become overly extreme have a tougher time getting reelected (Canes-Wrone, Brady and Cogan, 2002).

Support for spatial voting also exists at the individual level. When voting for the president, the spatial positioning of the candidates relative to an individual voter appears has a substantial impact on vote choice(Jessee, 2010). Spatial effects seem to extend to congressional elections, as when experts place congressional candidates on the same ideological scale as voters, voters are significantly more likely to vote for the candidate that is closest

to them ideologically. However like presidential voting, this relationship may be tempered by partisanship (Simas, 2013). Others have used voters' own assessments of ideology to show the importance of spatial positioning; however this effect is conditional on the spatial positioning of any challengers (Hollibaugh Jr., Rothenberg and Rulison, 2013).

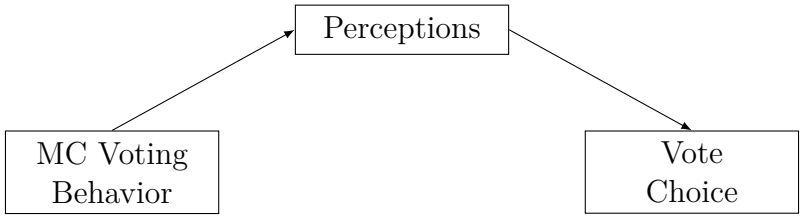
One crucial assumption behind models of spatial voting is that voters are aware of an incumbent's ideology and voting record. Early work was skeptical that voters could effectively monitor the votes of politicians because voters were not reliably accurate in their assessments of their representative's roll call behavior (Miller and Stokes, 1963). Scholars were also skeptical that voters were evaluating candidates in a consistent ideological manner (Converse, 2006). More recent work that uses advanced statistical techniques, as well as large samples, is more optimistic about the ability of voters to discern MC voting patterns. Gronke, Koch and Wilson (2003) find that voters are able to discern how supportive of the president MCs are, and that this knowledge can influence their vote choice. Awareness of MC voting behavior extends outside of just issues that the president has taken a position on. Others have used survey data on voter preferences on issues as well as voter beliefs about roll call voting to show that higher levels of genuine congruence between voters and MCs are reflected in voters' beliefs about congruence (Ansolabehere and Jones, 2010; Jones, 2011). Furthermore, beliefs about preference congruence influence whether voters vote for an incumbent; if the beliefs about an MCs voting record are in line with the voter's preferences, that voter is then more likely to vote for that candidate. The ability of voters to discern roll call behavior extends to single votes, as even one vote out of line with district preferences (Bovitz and Carson, 2006; Nyhan et al., 2012).

An important implication of these papers is that there is a sequence of events that must unfold in order for spatial voting to occur. Namely, MCs vote, then these votes affect voters beliefs and perceptions about that MCs voting record. Voters then evaluate how closely these votes align with their own preferences and become more likely to vote for an incumbent that is closer to their own preferences. This relationship is illustrated in Figure 3.1. However, the

studies discussed above tend to operationalize beliefs as either counts of correct beliefs about MC voting behavior or as a count of the number of bills for which voters believe MCs voted in congruence with the voter's preferences. These operationalizations do not specifically speak to precise spatial positioning (though they are close). My first hypothesis concerns the relationship between ideologies measured from issue preferences (actual ideology) and beliefs about ideology (perceived ideology).

H1: Actual ideological differences will affect perceived ideological differences.

Figure 3.1: How Incumbent Roll Call Votes Affect Vote Choice

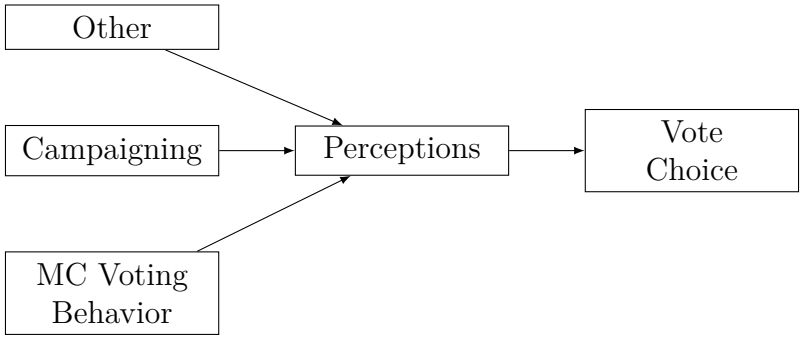


If the above hypothesis is correct, and voters do base their perceptions of ideology on an incumbent's voting record, the question remains: How come voters are not punishing politicians for extreme voting records? While incumbents cannot go back into the past to change their roll call record, they may be able to influence voter perceptions of their voting record via other routes. Factors other than legislative histories can affect how voters perceive an incumbent's voting history. For example, partisanship significantly affects perceived ideological differences and tempers the influence of actual ideological difference (Ansolabehere and Jones, 2010; Simas, 2013). One way then for incumbents to avoid the consequences of excessive extremity would be to attempt to influence the factors they can control, and attempt to manipulate voter perceptions of ideology (for example by making voters themselves more extreme). The primary means through which they could accomplish this is through campaigning. Figure 3.2 illustrates the broader constellation of factors that may be affecting ideological perceptions and ultimately vote choice.

Myriad reasons exist to believe that campaigning can affect voter's perceptions of ideological distance. For example, when looking at the dynamic of campaigns over time, scholars have shown that as campaigns progress partisan ambivalence amongst voters declines (Rudolph, 2011). Keele and Wolak (2008) find that voter ambivalence is responsive to the campaign environment, and as the campaign message becomes more one sided, ambivalence decreases. These ambivalence effects and attitudinal effects may be due to the advertising and messaging that candidates use over the course of the campaign. MacKuen et al. (2010) finds that when advertisements make voters feel anxious voters adopt a more deliberative stance. Conversely, when emotions like anger are activated, voters become more partisan (MacKuen et al., 2010). This leads to my second hypothesis:

H2: When an incumbent has a campaigning advantage, this will reduce the perceived ideological distance between the incumbent and his or her constituents.

Figure 3.2: Additional Determinants of Voter Perceptions and Vote Choice



There are two potential ways through which advertising can affect perceived spatial distance. The first way is through altering where voters perceive themselves to be (or genuinely changing the extremity of voters). This may be in line with activation based theories of campaigning effects. When campaigns are successful in activating partisanship, they succeed in aligning the vote choice of inparty members with their partisanship (Dilliplane, 2014; Hillygus and Jackman, 2003) . Though this theory primarily deals with aligning vote choice with partisanship, it may also extend to ideology. For example, if members of Congress can

reinforce the partisanship of members of their own party through advertisements, then it may follow that they will also attempt to radicalize the ideology of their inparty constituents. Conversely, they may also seek to undertake a conversion strategy, and convince outparty constituents to vote for them (Dilliplane, 2014). If they also sought to ideologically sway these voters, this may cause changes in ideological self-placement of voters. This leads to my third hypothesis:

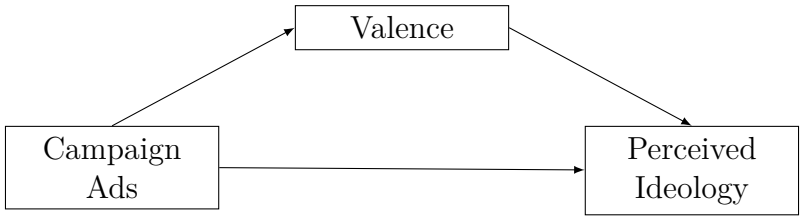
H3: Advertising advantage will shift the ideology of voters.

The second way in which candidates can influence their relative positions is by changing where voters perceive the positioning of the incumbents themselves. Again, there are strong reasons to suspect that campaigning may affect these perceptions. If an incumbent is out of step, they may choose to emphasize issues where they are in step with their constituents. For example, when senators respond to letters from constituents about roll call votes, they tend to emphasize other issues when a constituent does not approve of the senator's vote (Grose, Malhotra and Parks Van Houweling, 2015). Campaigning can also have substantial priming and framing effects, which can influence how voters evaluate candidates (Chong and Druckman, 2007; Druckman and Holmes, 2004). Incumbents may find it advantageous to use advertisements to prime voters to assess the incumbent on issues that are more favorable to the incumbent.

Alternatively, advertisements aired by the incumbent may shy away from issues and emphasize the positive character traits and characteristics of the incumbent. Since voters are more likely to vote for a candidate that has favorable characteristics, this could help incumbents win more votes. At the same time, they may benefit from airing negative ads and painting the challenger in a negative light. Furthermore, and more importantly for this theory, valence may also affect perceptions of an incumbent's ideology. This relationship is outlined in figure 3.3 and leads to my fourth hypothesis:

H4: Advertising will affect voter's perceptions of an incumbent's location

Figure 3.3: The Relationship Between Campaigning, Valence, and Ideological Perceptions



There is substantial evidence to support the contention that perceptions of candidate valence traits and agreement on policy measures are closely linked. For example, when a politician's and voter's policies align, voters begin to have more favorable assessments of the candidates. This is in line with online processing models of voting behavior, which find that seemingly superficial evaluations of candidates may be the result of voters keeping a running tally of policy agreement (Lodge, McGraw and Stroh, 1989; Lodge, Steenbergen and Brau, 1995; Coronel et al., 2012). Overall this would cause voters to attribute more positive characteristics to candidates with whom they agreed. The relationship between voter evaluations of candidate traits and voter perceptions of a candidate's ideology may also go the other way. In this case, voters realize they like and approve of the candidate. However, because they like and approve of the candidate, they are more likely to perceive the candidate as having similar views as themselves (Conover and Feldman, 1989). I argue that this is the pathway through which advertising and campaigning can affect ideological perceptions. Incumbents campaign and air advertisements to increase voter perceptions of their valence. Favorable evaluations of the incumbent cause voters to begin to perceive the ideology of the incumbent to be ideologically closer to themselves. Essentially, the effects of advertisements are transmitted through valence to ideological perceptions to make the candidate seem more in line with voters. From a candidate's perspective this could be especially beneficial because valence characteristics also have a direct effect on vote choice (Campbell et al., 1980; Lewis-Beck et al., 2014). This leads to my 5th hypothesis:

H5: The effects of campaigning on ideological perceptions will be mediated through perceptions of valence characteristics.

3.2 Measuring Ideology

Political scientists have employed a variety of empirical strategies in order to study the relationship between the ideology of voters and the ideology of legislators. Early approaches used separate measures for legislative ideology and voter ideology. At the aggregate level, scholars have used factors such as presidential vote share or previous voting history as a proxy for district ideology. At the same time, researchers have used items like interest group scores and roll call histories to represent legislative ideology (Poole and Rosenthal, 1997; McCarty and Poole, 1998; Groseclose, Levitt and Snyder Jr., 1999). These studies of ideological correspondence have found evidence that legislators are responsive to their constituents; liberal districts will have liberal representatives and conservative districts will have conservative representatives. However, while useful for testing general theories of ideological correspondence, since these studies do not have specific measures of actual ideological distance, they do not speak to the specific predictions of spatial models of voting.

In order to test models of spatial voting, candidates need to be placed on the same ideological scale as voters. Early attempts to place candidates and legislators on the same scale relied on voter assessments of a candidate's ideology (Aldrich and McKelvey, 1977). Such an approach is difficult since voters may have different conceptualizations of the ideological scales (Aldrich and McKelvey, 1977; Hare et al., 2015). More recent work attempts to place legislators and their constituents on the same scales using common items. For example, Ansolabehere, Snyder and Stewart (2001) use surveys filled out by political candidates to place candidates and voters on the same scale. However, the response rate to these surveys is far from 100 percent, and politicians may be strategically responding to questions in order to maintain ambiguity. Others have asked panels of experts to assess the ideology of candidates by placing them on the same ideology scale that voters place themselves on. This accounts

for politicians that do not fill out surveys, as well as providing measures of candidates who do not have legislative voting histories (Joesten and Stone, 2014; Adams et al., 2013; Stone and Simas, 2010).

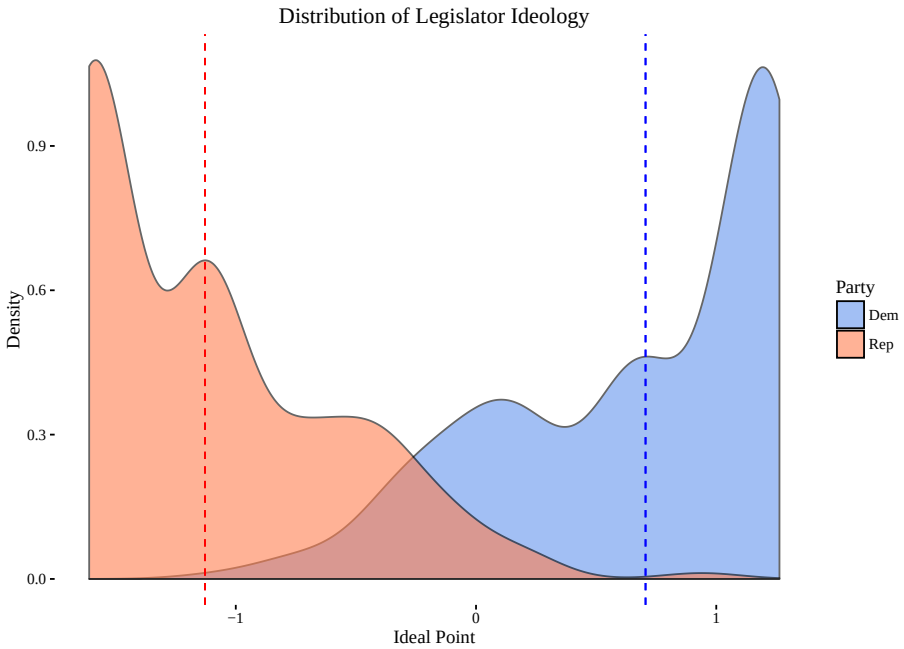
Perhaps the most promising method for jointly scaling voters with politicians lies in a survey-based approach. This method seeks to ask survey respondents about questions in which legislators have taken a concrete position. To do this, scholars have designed surveys that ask voters for their specific preferences on specific roll call votes. These responses can then serve as bridges between legislators and their constituents, and allow their ideologies to be measured on the same scale. In turn, this allows for more precise tests of spatial theories of voting by allowing for the precise calculation of the ideological distance between respondents and their legislators. Bafumi and Herron (2010) use this strategy on the CCES to show that the extremity of legislators exceeds the extremity of their constituents.

3.3 Data and Methods

In order to account for the genuine ideological distance between an incumbent and voters, I employ a variant of the method outlined by Bafumi and Herron (2010) and jointly scale MCs with their constituents.[15] The CCES contains questions about voter preferences on various bills that the 110th Congress considered (Ansolabehere, 2013). For example, respondents to the survey were asked whether they would support a bill in Congress that raised the minimum wage. This question corresponds to an actual bill voted on by Congress. Additionally, the CCES contains questions about issues such as abortion and affirmative action. Some of these questions included more than two response options. In order to include these items, I collapse the responses into binary categories. I use the responses to the policy preference questions, and the questions on roll call votes to jointly estimate the ideology of MCs and the survey respondents. In order to do so, I use a two-parameter IRT model. IRT models treat subject responses to different survey questions (or roll call votes in the case of legislators)

[15]Unlike Bafumi and Herron (2010) I do not include full roll call histories, I just use the roll call votes that align with the CCES.

Figure 3.4: The Ideological Distribution of MCs in the 110th Congress

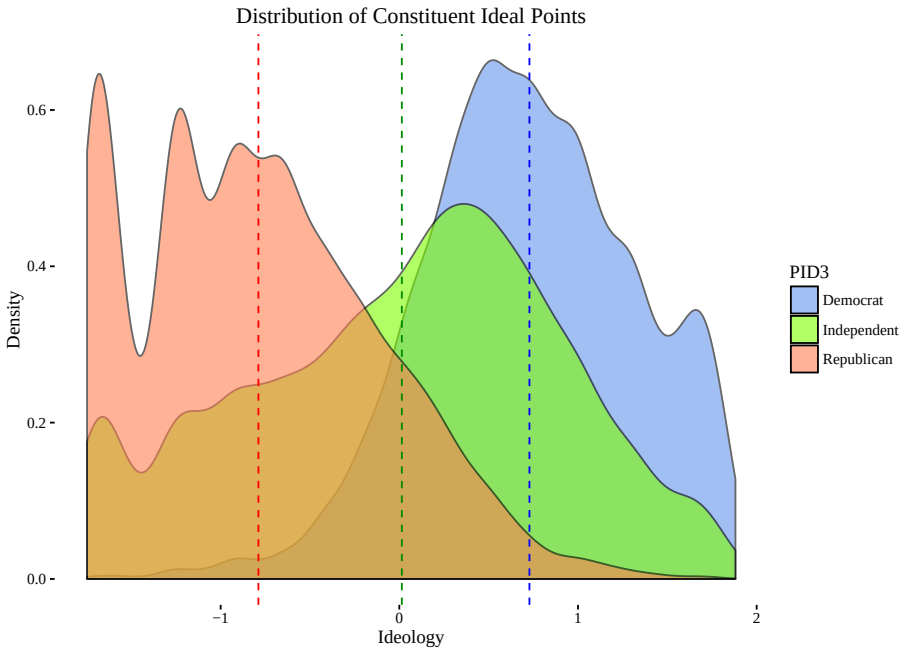


Note: Ideal points are from the joint IRT model. These are standardized so that values represent the number of standard deviations a respondent or legislator is from the mean ideology of all subjects included in the IRT model. Higher values indicate more conservative ideology.

as a function of a respondent's location on a latent trait (in this case ideology), and the difficulty of the item (in this case whether agreeing to the answer is easier for liberals or conservatives) (De Ayala, 2013). So, if a respondent indicates a preference for a bill that only the most conservative respondents approve of the model will assess them to have higher levels of conservative ideology than those that do not. Since the CCES dataset has over 30,000 respondents, there are a large number of ideal points to estimate. To fit the model, I use the *emIRT* package in R. This package uses an expectation maximization algorithm to estimate the parameters of the IRT model, which allows for relatively quick estimation of the model (Imai, Lo and Olmsted, forthcoming).

Figures 3.4 and 3.5 show the ideological distribution of MCs and their constituents by party. The scale is oriented so that higher values indicate higher levels of conservatism. Looking at the figure for the estimated ideologies of MCs, we can see the mean of each

Figure 3.5: The Ideological Distribution of Respondents to the 2008 CCES



Note: Ideal points are from the joint IRT model. These are standardized so that values represent the number of standard deviations a respondent or legislator is from the mean ideology of all subjects included in the IRT model. Higher values indicate a more conservative ideology.

party lies about 1 standard deviation away from the median ideology, with Republicans being slightly more extreme. Furthermore, since only a limited number of items are used to estimate ideologies, there is some lumpiness to the estimates, as well as some overlap between the parties. Overall, the model would benefit from having more items for legislators, as the extremes of the distribution seem to be truncated. When we look at the distribution of constituents, we can see that the average Republican is more conservative than the average Democrat. However there is much more overlap between constituents of different parties than legislators of different parties. The mean ideology of independent voters is right at the ideological center.[16]

[16]Scholars have found that generally, one dimension does an adequate job of capturing ideology in Congress, especially more recent Congresses (Poole and Rosenthal, 1997). However, it is likely that another dimension would help explain ideology in the public (Peress, 2013). Using one dimension is in line with methods that scholars have traditionally used to examine the relationship between constituent and legislative ideology (Bafumi and Herron, 2010).

To measure campaign activity, I use data from the Wisconsin Ad Project to create an advertising advantage index.[17] The Wisconsin Ad Project tracks all political advertising on the major broadcast and cable networks during an election and keeps a record of when and where each political advertisement aired (Goldstein et al., 2011). Furthermore, coders at the Wisconsin Ad Project keep track of which candidate an advertisement favored. To create a measurement of advertising advantage, I sum up the total number ads in support of a candidate for each day, in each media market, for each congressional district. Then I created a cumulative count of these ads in each of these media markets by each day. To limit the effect of primary ads, I only look at advertisements after July 1st. I divide the number of ads aired in support of a candidate, by the cumulative number of ads aired by both major party candidates in a district (and converted this to a percentage). An index value of 100 percent would indicate that all the ads aired in a district were in support of the incumbent, a value of zero would indicate all ads were aired by the challenger, while a score of 50 percent would indicate parity.

One possible problem with simply using a count of ads is that not all advertisements are created equally. An advertisement during primetime on a major network will likely be seen by more viewers than an advertisement aired at 2 am during a weekend. Fortunately, the Wisconsin Ad Projects also includes the projected cost of an advertisement. I use this to create a variable that tracks the cumulative spending advantage an incumbent may have. Since advertisements aired in better time slots, and on better networks cost more, this measure should account for instances in which a candidate is airing a lot of ads on a less watched network.

One advantage to using the rolling cumulative advantage of ads and spending is that it accounts for the fact that respondents to the CCES were interviewed over an extended period of time. The first respondents were interviewed on October 8th, while the last respondents

[17]The data were obtained from a project of the University of Wisconsin Advertising Project includes media tracking data from TNSMI/Campaign Media Analysis Group in Washington, D.C. The opinions expressed in this article are those of the author and do not necessarily reflect the views of the University of Wisconsin Advertising Project.

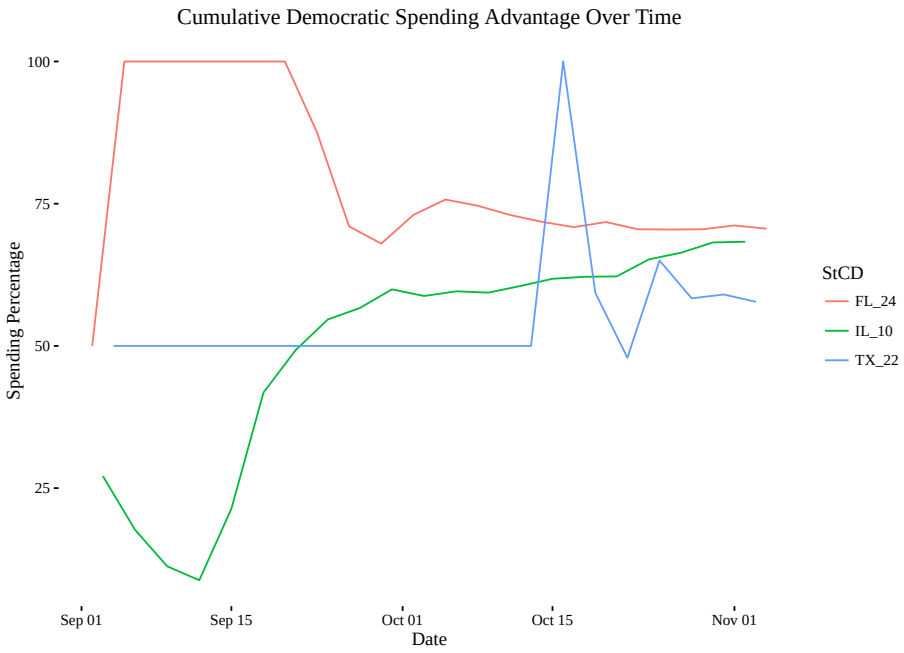
were interviewed on November 3rd of 2008.[18] This is almost a month, and the dynamics of a campaign can considerably change over this time frame. Overall, the most expensive race cost candidates a combined 6 million dollars with over 12,000 ads. Within campaigns, there are also considerable changes in who has the upper hand with advertising. Figure 3.6 shows the evolution of the advertising advantage in three separate races by graphing the Democratic candidate's spending advantage over time. Here, we can see there is considerable variation in which candidate has the advertising over time. For example in the 10th district in Illinois the Democratic candidate, Dan Seals, was at a disadvantage early in the campaign. However, towards the end of September began to air more advertisements, and steadily increased his advertising advantage over the month of October. Respondents at the end of the month would be exposed to a significantly larger ratio of advertisements from the Democratic candidate than from the Republican candidate. By using a measure of advertising advantage that incorporates daily changes, I can capture this dynamic. Another benefit of my index is that there are considerable differences between congressional districts. For example, advertisements in New York are much more expensive than ads in Cedar Rapids. By looking at the index rather than sums the impact of price differences between media markets is limited.

My dependent variable captures how voters perceive ideological differences. The CCES has questions that ask respondents to place themselves on an ideological thermometer scale as well as items that ask respondents to place congressional candidates on the same ideological scale. In order to measure perceived ideological closeness, I subtracted the respondent's placement of the incumbent from the respondent's own feeling thermometer, and then took the absolute value. A score of zero would indicate that the voter believed that they had perfectly congruent ideology with the incumbent.

My second set of hypotheses deals with perceived valence of the candidates. To measure

[18] Figure 3.9, in the appendix, shows the distribution of pre-election interview dates. Here we can see that most of the interviews were carried out during the last two weeks of October, with a smaller number of interviews being conducted at the beginning of October, and right before the election

Figure 3.6: The Evolution of Daily Democratic Campaigning Advantage over the 2008 Election in Select House Districts



Note: Spending percentage denotes the cumulative percentage of ads that have been aired by the Democratic candidate. This is updated daily (day and month is show on the X-axis).

the valence of the incumbents, I use responses to CCES questions about incumbent traits. These items asked whether respondents considered candidates to be honest, whether they considered the candidate to be competent, and whether they considered the candidate to be knowledgable. I coded each of these responses so that 1 indicated the respondent agreed that the candidate possessed the relevant trait, -1 indicated disagreement, and 0 indicated the respondent did not know for sure. Then, I sum these items together to construct a valence scale. This scale has a maximum of 3 and a minimum of -3, with positive scores indicating net positive evaluations, and negative scores indicating net negative evaluations.[19]

Partisanship has a strong impact on perceived ideological differences (Jessee, 2010). To account for this, I include a set of dummy variables that indicate the partisan congruence between respondents and their MCs. One dummy indicates that both MC and voter identify with the same party, while the other dummy indicates they identify with the opposite party, with independent voters being the excluded category. Additionally, since some scholars have indicated that these effects might play out differently depending on partisanship, I subset the analysis by partisan correspondence.

In order to analyze these data, I will use a multilevel modeling approach. By using a multilevel model, I can account for the nested structure of the data. In this case, individuals are nested within congressional districts so I allow the intercept to vary by district.[20] This accounts for any potential group level heterogeneity. If left unaccounted for, this group level heterogeneity could result in biased estimates of the standard errors Gelman and Hill (2007). Biased estimates of standard error are especially problematic since these biases can make any hypothesis tests unreliable. However, by modeling the group level variance, these effects can be accounted for. Since I am looking at differences across 100 point feeling thermometers, I will fit a linear model to the data.

[19]Cronbach's Alpha for this scale is .77

[20]Clustering at the district level is likely the biggest concern due to the different relationships MCs have with their districts. For example, if an MC is successful in returning pork to the district, this may cause voters in that district to have higher average evaluations of the incumbent.

3.4 Results

Table 3.1: Determinants of Ideological Perceptions

	Dependent variable:	
	Perceived Ideological Difference	
	(1)	(2)
Ideological Distance	13.668***	13.663***
	(0.509)	(0.509)
Cumulative Ad Index	−0.024*	
	(0.013)	
Cumulative Spending Index		−0.027**
		(0.013)
Opposite Party	12.487***	12.498***
	(0.970)	(0.970)
Same Party	−5.605***	−5.611***
	(0.872)	(0.872)
Constant	12.938***	13.113***
	(1.246)	(1.250)
Observations	3,128	3,128
Log Likelihood	−13,623.470	−13,623.110
Akaike Inf. Crit.	27,260.940	27,260.220
Bayesian Inf. Crit.	27,303.270	27,302.550
Note:	*p<0.1; **p<0.05; ***p<0.01	

Table 3.1 shows how actual ideological differences and advertising levels affect perceived ideological closeness. As expected, partisanship plays a very strong role in influencing citizen perceptions; respondents perceive candidates to be closer when they share the same partisanship. The coefficient on actual ideology is both large and substantively significant. If ideological distance increases by one standard deviation, then perceived ideological distance will increase by about 14 degrees. This provides strong support for my first hypothesis, and indicates that the actual voting behavior of MCs has a strong effect on how voters perceive

the candidate.

The results also provide some insight into how incumbents can mitigate the damage of extremity. When we look at the coefficient on the advertising index it is negative. Cumulative ad advantage is marginally significant at the .1 level. The spending index, which does a better job of capturing the reach of the advertisements is significant at the .05 level. Both coefficients are negative, indicating that as the ratio of advertisements shift in favor of the incumbent, the perceived ideological distance between the incumbent and respondent decreases. Substantively, if an incumbent increases their spending index by 35 percentage points, they would be able to reduce the perceived ideological gap between themselves and their constituents by about 1 unit on the ideology scale. Though the magnitude of the effect pales in comparison to partisanship and ideological positioning, this suggests incumbents can mitigate some of the consequences of extremity through intensive campaigning. [21]

Since perceived ideological distance is a function of both the respondent's ideological self-placement, as well as placement of the incumbent, there are two ways in which advertising can affect perceived ideological distance. First, advertising may serve to radicalize voters by activating partisanship. If advertising is effective at radicalization, then this may be apparent in how voters perceive their own ideology. In this case, advertising would pull the respondent in the direction of the candidate airing the advertisements. To test for these effects, I created a new set of variables. To measure whether advertising is activating partisanship and radicalizing respondents, I use respondent self-placements on the ideological feeling thermometer. I then center the scale (on 50), and orient the scale based on the partisanship of the respondent. Higher values indicate higher levels of extremity in the direction of the respondent's preferred party. For example, if the respondent is a Democrat higher values on

[21] In addition to testing for direct effects, I tested to see whether the effect of advertising was conditional on ideological distance. If advertisements were playing an informational role, this dynamic might be in play. For example, if a candidate was out of step with her district, an opponent might highlight this fact in her ads. In this case, the impact of actual ideological distance on perceived distance would be greatest when an incumbent's opponent enjoyed a spending advantage. In order to test for this, I ran two models in which I interacted advertising advantage with actual ideological distance. The results from this model are displayed in Table 3.7, in the appendix. These interactions are insignificant, suggesting that advertisements may not be altering perceptions of ideology by providing information.

this scale would indicate that the respondent is identifying as a stronger liberal. Conversely, for Republicans, higher values would indicate that voter is more conservative. I also recode the actual ideology variable to match the orientation of the ideological self-identification variable.

Table 3.2 shows the results of the partisan activation models. If advertising is successful in activating partisanship or radicalizing voters, then the sign on the model for the inparty subset should be positive while the sign on the model for outparty model should be negative. However, in both models the advertising index is not statistically significant. Overall this result provides weak support for my hypothesis about partisan activation. However, the models on perceived distance indicate that advertising is having an effect, which indicates that advertising may be altering voter perceptions.

Table 3.2: Determinants of Voter Ideology by Party

	Dependent variable:	
	Ideological Self Identification	
	In Party	Out Party
	(1)	(2)
Ideological Distance	14.371***	16.944***
	(0.564)	(0.923)
Cumulative Ad Index	0.0004	−0.016
	(0.011)	(0.018)
Constant	16.577***	2.856*
	(0.873)	(1.484)
Observations	1,550	1,305
Log Likelihood	−6,382.209	−5,741.380
Akaike Inf. Crit.	12,774.420	11,492.760
Bayesian Inf. Crit.	12,801.150	11,518.630
Note:	*p<0.1; **p<0.05; ***p<0.01	

The other way in which advertising could be affecting perceived ideological distance is through altering where voters perceive a candidate to be. In the next set of models I examine

whether this is the case. In order to do so, I recode the perceived ideology variable so higher values indicate that the incumbent is more ideologically in sync with the voter's own party. So if the voter identifies as a Republican, higher values will indicate that they perceive the candidate to be more conservative.

The results in Table 3.3 provide strong support for the contention that incumbents are using advertising to affect how voters perceive the ideological positioning of the incumbent. Interestingly, this effect seems to depend on the partisan correspondence between voters and the incumbent. For members of the same party, advertising does not seem to have an effect on how voters perceive incumbent ideology. However, advertising does seem to significantly affect how voters that identify with the outparty perceive the incumbent's ideology. In the outparty model, the coefficient on advertising advantage is both significant and positive. This means that as an incumbent begins to air a higher share of the advertisements, voters from the outparty perceive the incumbent to be more ideologically in sync with the ideology of their own party. Substantively, increasing an incumbent's ad index by 25 percentage points will result in voters from the outparty perceiving that candidate as being one degree closer to the dominant ideology of the voter's party. Overall this result suggests that one of the ways in which candidates use advertising is to alter voter perceptions of their ideology.

In order to test how advertising affects independents, I include some models in which I use the advertising index to predict ideological self perceptions as well as perceptions of the candidate. These results are shown it Table 3.4. In the model for ideological self identification, respondents are coded so that higher values correspond to the ideological direction of the party of the incumbent. Here, advertising is insignificant, indicating that the activation and radicalization effects may be minimal. The second model uses perceived ideological extremity as the dependent variable. This variable simply centers the perceived ideology thermometer around 50, and takes the absolute value. For independents, advertising can have a significant effect on perceived ideological extremity, as the coefficient on advertising is both positive and significant.

Table 3.3: Determinants of Voter Perceptions of Incumbent Ideology by Party

	Dependent variable:	
	Incumbent Placement	
	In Party	Out Party
	(1)	(2)
Ideological Distance	5.578***	−12.882***
	(0.701)	(1.137)
Cumulative Ad Index	0.022	0.050**
	(0.018)	(0.023)
Constant	18.838***	−20.959***
	(1.395)	(1.903)
Observations	1,317	968
Log Likelihood	−5,551.225	−4,340.138
Akaike Inf. Crit.	11,112.450	8,690.277
Bayesian Inf. Crit.	11,138.370	8,714.653
Note:	*p<0.1; **p<0.05; ***p<0.01	

Substantively, if an incumbent moves from 25 percent to 75 percent on the advertising advantage index, independents would perceive that candidate to be two degrees less extreme. However, this still leaves the question of whether the magnitude of the advertising effect is enough to compensate for increases in extremity. On average, an incumbent running an active campaign had a genuine ideological difference of about 0.87 standard deviations between themselves and independent voters in their district. Looking at the coefficient on the actual ideology in Table 3.4, this should shift voter perceptions by about 4.6 degrees. Going from being severely outspent by a challenger to severely outspending a challenger can compensate for about 40 percent of the penalty for being out of line with independent voters in a district. So, the effects of spending would not be able to completely erase the effects of being out of step. However, if an incumbent knows they will be able to outspend their opponent, they will have some leeway to adopt more extreme voting stances. Furthermore, advantages that campaigning and advertising bestow in non-ideological domains may further

compensate for extremity.

Table 3.4: Determinants of Voter Ideology Placements for Independents

	Dependent variable:	
	Self Ideology	Perceived Cand Ideo
	(1)	(2)
Ideological Placement	17.339***	
	(0.583)	
Ideological Distance		5.295***
		(0.592)
Cumulative Ad Index	0.010	−0.043***
	(0.015)	(0.016)
Constant	5.217***	22.487***
	(1.048)	(1.335)
Observations	1,189	880
Log Likelihood	−5,103.670	−3,584.539
Akaike Inf. Crit.	10,217.340	7,179.078
Bayesian Inf. Crit.	10,242.740	7,202.978
Note:	*p<0.1; **p<0.05; ***p<0.01	

3.4.1 Valence

In addition to competing over ideological positioning, candidates also compete over valence issues. Having an advertising advantage may allow candidates to put their best foot forward, while at the same time portraying their opponent in a negative light. In the next set of analyses, I explore whether candidate advertising affects how voters perceive the valence characteristics of the incumbent.

Table 3.5 shows the results of the valence models. First, we can see that partisanship has a strong effect on valence; voters think highly of candidates from their own party. Actual ideology affects whether an individual has positive perceptions of an incumbent. If an incumbent has an actual ideology that is closer to the incumbent's actual ideology, that

person is more likely to have more a more favorable assessment of that candidate's valence.

Second, the main dependent variable of interest, the ad advantage index, is both positive and significant in both operationalizations of the variable. Overall, increasing the incumbent's advertising advantage by about 40 percentage points would result in a tenth of a point increase in perceived valence. Though relatively small, this effect does have meaningful substantive significance. Moving from being independent to being a member of the opposite party is associated with about a third of a point decrease in perceived valence. This means that if a candidate gains a substantial advantage in advertising, they could offset about one third of the cost of opposing partisanship. Going from being completely overwhelmed in advertising (0 percent on the advertising index) to dominance (100 on the advertising index) would completely offset the effect of a voter switching from being an independent to the opposite party.

These effects play out differently by party. Looking at Table 3.6, we can see how the effects of advertising on valence vary based on the partisanship of the voter. When voters are independent, advertising does not seem to affect valence. However, when voters identify with a party (either the same party as the incumbent or the opposite party), advertising affects how voters perceive a candidate, with more advertising by the incumbent being associated with higher valence evaluations for the incumbent.

So far we can see that advertising does affect the perceived ideological distance between incumbents and voters; when incumbents have an advertising advantage, voters begin to perceive themselves to be ideologically closer to the candidates. This effect seems to be driven primarily by changing where voters perceive the ideology of the incumbent to be, rather than through changes in the voters' perceptions of their own ideology. But how does advertising cause perceptions of a candidate's ideology to shift? The last set of models shows that advertising does seem to affect voter perceptions of a candidate's valence. Next, I explore whether advertising raises candidate valence which subsequently causes voters to view the candidate as having an ideology closer to their own.

Table 3.5: Determinants of Valence Perceptions

	Dependent variable:	
	Valence	
	(1)	(2)
Ideological Distance	−0.716***	−0.716***
	(0.038)	(0.038)
Cumulative Ad Index	0.003***	
	(0.001)	
Cumulative Spending Index		0.003***
		(0.001)
Different Party	−0.316***	−0.316***
	(0.066)	(0.066)
Same Party	0.708***	0.709***
	(0.064)	(0.064)
Constant	1.802***	1.796***
	(0.100)	(0.101)
Observations	4,195	4,195
Log Likelihood	−7,911.995	−7,911.939
Akaike Inf. Crit.	15,837.990	15,837.880
Bayesian Inf. Crit.	15,882.380	15,882.270
Note:	*p<0.1; **p<0.05; ***p<0.01	

In order to determine whether campaign spending is acting on perceived ideology through valence, I will use the mediation method developed by Imai et al. (2011). This procedure works by first estimating a model in which the treatment (advertising advantage) predicts the moderator (valence). Then a second model is estimated in which the treatment (advertising advantage) and mediator (valence) predict the outcome (perceived ideological difference). After parameters from these models are obtained, the mediation model is used to predict values for the mediation variable in the control condition and values for the mediator in the treatment condition. These simulated mediation values are then plugged into the treatment model to generate different potential outcomes in the outcome variable (vote choice). The

Table 3.6: Determinants of Valence Perceptions by Party

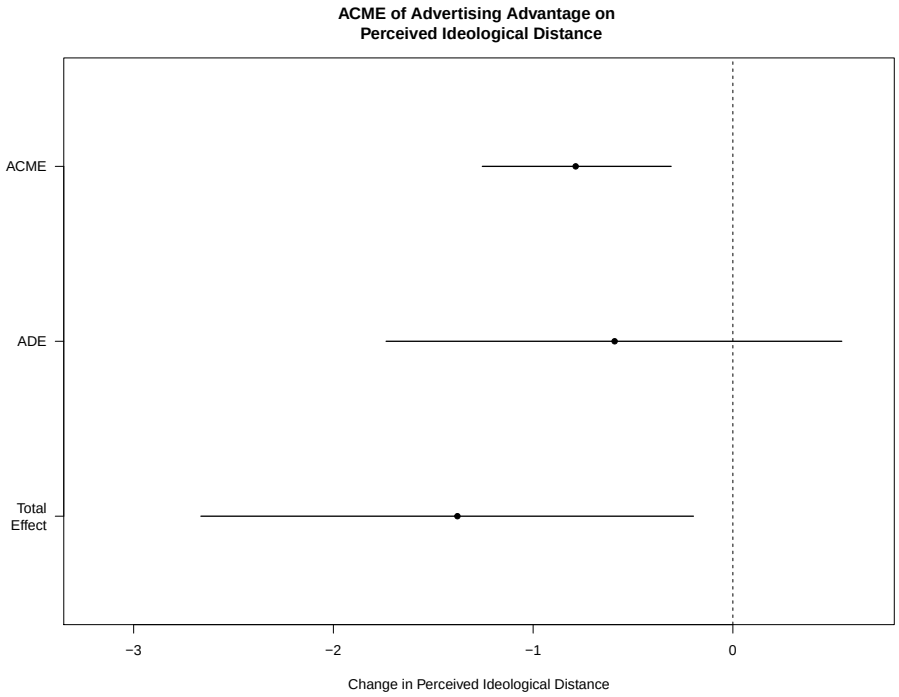
	Dependent variable:		
	IncValenceScale		
	In Party	Independent	Out Party
	(1)	(2)	(3)
Ideological Distance	−0.561***	−0.943***	−0.550***
	(0.064)	(0.063)	(0.071)
Cumulative Ad Index	0.004***	0.003	0.005**
	(0.001)	(0.002)	(0.002)
Constant	2.364***	2.106***	1.081***
	(0.102)	(0.153)	(0.190)
Observations	1,562	1,286	1,347
Log Likelihood	−2,691.673	−2,517.839	−2,652.613
Akaike Inf. Crit.	5,393.346	5,045.677	5,315.227
Bayesian Inf. Crit.	5,420.115	5,071.474	5,341.255
Note:		*p<0.1; **p<0.05; ***p<0.01	

differences between the potential outcomes in the control condition and potential outcomes are then used to determine mediational and direct effects Imai et al. (2011).[22]

Figure 3.7 shows the results of the mediation model. First, we can see that the total effect of advertising on perceived ideology is both positive and significant. Overall, if an incumbent goes from 25 percent of the cumulative spending to 75 percent of cumulative spending on advertisements, the perceived ideological difference would drop by about one degree. The average direct effect (ADE) is not statistically significant, while the mediational effect is. This suggests that most of the influence of advertising on perceived ideology passes through valence. About 55 percent of the effect of advertising on perceived ideology passes through changes in valence. These results are supportive of the idea that candidates can manipulate where voters perceive their ideology, and do so by using advertising to increase their positive valence characteristics, which may then cause voters to project their own ideology onto the

[22]This procedure is repeated a 1000 times in order to bootstrap the standard errors.

Figure 3.7: Estimated Direct, Mediational, and Total Effects of Campaigning on Perceived Ideological Distance

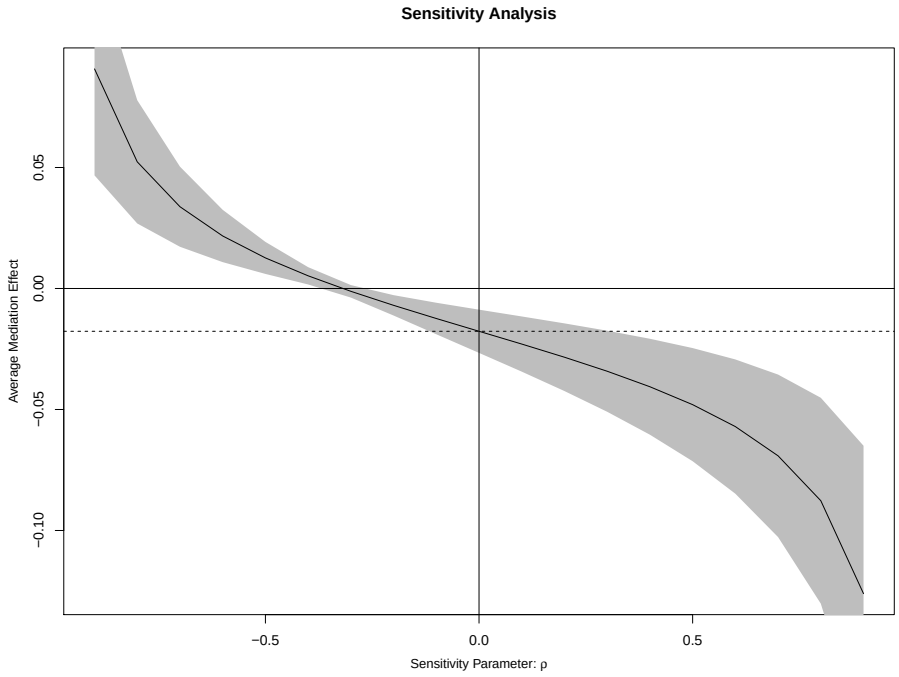


Note: Point estimates for Average Causal Mediation Effect (ACME), Average Effects, and Total Effects. .95 Confidence intervals. Confidence intervals were estimated using a bootstrap with 1000 resamples. Estimation was performed using the *mediation* package in R.

incumbent.

While these results are suggestive that this relationship exists, they are not fully conclusive. Since this study is observational, the results can be confounded by omitted variables in both the first and second stages of the mediation model. While it is not possible to rule out any potential confounders, it is possible to conduct a sensitivity analysis to quantify when a confounder would overturn these results. Figure 3.8 shows the results of the sensitivity analysis. In this plot, the ACME is plotted against different values of ρ, which measures the correlation between the error terms of the mediation and outcome models. Overall, this shows how highly correlated with valence and spending an unobserved confounder would have to be in order to overturn the result. The key value in this graph is the point at which

Figure 3.8: Sensitivity Analysis for the Mediational Effects of Campaigning on Perceived Ideological Distance in the 2008 House Elections



Note: This figure shows the estimated causal mediation effect across different values of ρ. The dashed line represents estimated effect when ρ is equal to zero. The shaded region represents the estimated standard error for the mediation effect at that value of ρ

ρ intersects with the horizontal axis of the graph. This horizontal axis represents the point at which no mediation effect would be observed. Looking at this graph we can see that this intersection occurs around a rho of -.3. This coefficient means that in order for the results to be overturned, any potential confounder would have to affect perceived ideology and valence in opposite directions, and the magnitude of this relationship would have to be stronger than .3. Overall, this would mean a moderately strong confounder could overturn the result.

3.5 Conclusion

From these analyses, we can see that the roll call behavior of incumbents plays an important role in determining how voters perceive candidates. When incumbents are further away

from voters on genuine issue preferences, voters actually perceive these differences. Most interestingly though, campaigning affects how voters perceive the ideology of candidates. Incumbents that have a campaigning advantage are perceived by voters as being closer ideologically. However, incumbents seem to be most successful at changing the perceptions of independent voters and opposition voters. Furthermore, this study provides one possible explanation for how incumbents are altering perceptions of their ideology. Namely, advertising can be used to increase evaluations of valence qualities, which may then cause voters to perceive the candidate to be closer to their own position. Overall, this suggests that incumbents have considerable leeway to reduce the costs of being out of line.

In fact, this analysis is likely understating the importance of advertising in elections. In my analysis of ideological perceptions, I excluded voters who were not able to place political candidates on the ideology scale. However, a portion of these voters still voted in the elections. Since these voters that are not aware of an incumbent's ideology cannot be voting based on perceived ideological distance, they are voting on alternative criteria. In this case, the positive effects spending has on candidate spending has on valence characteristics will still help candidates increase vote share. Furthermore, there are alternative pathways through which spending and advertising can affect electoral outcomes. This study primarily deals with how advertising affects perceptions of the incumbent. However, incumbents will frequently air negative advertising seeking to tarnish the reputation of their opponent. Finally, advertising may also affect turnout. If an incumbent's negative ad campaign succeeds in smearing the reputation of the opponent, this may demoralize the opponents supporters and lead to lower turnout (Ansolabehere and Iyengar, 1995). Conversely, if an incumbent is successful in mobilizing her voters, this will make it easier to win reelection. Overall, this suggests that the importance of campaigning is even greater than outlined in this study.

These results also have important implications for how the ideological correspondence between legislators and members of their district are measured. Multiple studies use voter assessments of incumbent ideology in order to place candidates relative to their districts.

However, if voter perceptions of incumbent ideology can be manipulated by advertising campaigns, this would render this method of measuring ideology somewhat unreliable. Instead, approaches that use methods that directly measure the ideology of both voters and legislators may be preferable to methods relying on voter assessments (or those that use expert evaluations).

While these results are supportive of this story, there are still some potential sticking points. For example, the feeling thermometer is bounded at 0 and 100. This might be creating some ceiling and floor effects in the distance measures. However, this is not as much of a problem on the feeling thermometer as it would be on a traditional 7 point ideology scale. Measurement issues in the genuine ideology scale may also be a problem, particularly regarding legislator ideologies. My ideology model shows some overlap between legislators of both parties, while other approaches that use all roll call votes, like Hare and Poole (2014), do not show as much overlap. In the future using surveys with more items may help with this problem.[23]

In addition to these findings, there is considerable room for future research into this topic. For example, my operationalization of the data was agnostic regarding the content of the ads. However, the data collected by the Wisconsin Ad Project also includes information about the content of the ads. This might allow explorations into whether ads that emphasize character traits are driving the results, or if in fact the results are being driving by the opposition airing negative ads.

Finally these results are relevant for research into political polarization. If incumbent politicians can use campaigning to escape some of the costs of ideological extremity, they have more leeway in radicalizing. Furthermore, if one party has a consistent financial edge, it may pave the way for politicians from that party to move away from the center. This finding is particularly interesting when taken in conjunction with the results of the previous section, where I showed that Republican donors are increasingly rewarding Republican MCs for

[23]Some of the later CCES surveys have more items, however do not use thermometer scales for measurement.

toeing the party line. Overall then there may be a situation in which Republican politicians are radicalizing in order to gain more access to more campaign funds. The ability of the electorate to punish this extremity is then limited by the campaigning activity of Republican MCs, which may be causing voters to perceive these incumbents to be more in step than they actually are.

3.6 Chapter 3 Appendix

Figure 3.9: Distribution of Interview Dates

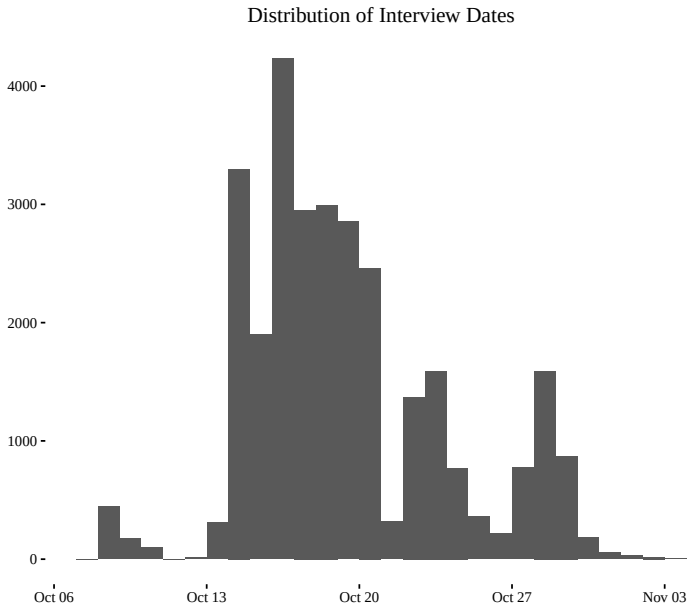


Table 3.7: Determinants of Ideological Perceptions

	Dependent variable:	
	PerIdeoDist	
	(1)	(2)
Ideological Distance	13.668***	13.663***
	(0.509)	(0.509)
Cumulative Ad Index	−0.024*	
	(0.013)	
Cumulative Spending Index		−0.027**
		(0.013)
Opposite Party	12.487***	12.498***
	(0.970)	(0.970)
Same Party	−5.605***	−5.611***
	(0.872)	(0.872)
Ad * Ideo	12.938***	13.113***
	(1.246)	(1.250)
Observations	3,128	3,128
Log Likelihood	−13,623.470	−13,623.110
Akaike Inf. Crit.	27,260.940	27,260.220
Bayesian Inf. Crit.	27,303.270	27,302.550
Note:	*p<0.1; **p<0.05; ***p<0.01	

Chapter 4

4 Approval and Support of the President's Agenda

One of the defining features of the current presidential race is an overall dissatisfaction with the power of political donors. Bernie Sanders has achieved some electoral success by promising to "Get the big money out of politics and restore democracy." On the Republican side of the campaign, Donald Trump frequently brags about funding his own campaign. Voters seem to agree with these assessments; in a recent CBS News poll over 80% of voters indicated that they believed money had too much influence in politics (Confessore, 2015).

The main the driver of these sentiments are fears that donors are making the government less responsive to public opinion. In this paper, I use legislative responsiveness to presidential approval to examine this question. Perhaps the most well-known and most important component of public opinion is presidential approval. Presidential approval can affect the president's reelection chances and the electoral fortunes of his own party. In fact, Neustadt (1980) argued that maintaining high levels could be a key source of presidential influence. I use a new variant of multilevel regression with poststratification (MRP) to estimate state-level presidential approval at varying points in time. I use these estimates to test whether state-level public opinion influences senatorial decisions to support the president's agenda. Then, I use data on both presidential approval and data on political donations to explore whether political donors are muting democratic responsiveness.

I find some support for the notion that presidential approval affects voting in the Senate. However, the responsiveness of senators depends on their party, election status, and overall levels of donations. Republicans appear to be responsive to district level opinion (at least for the Bush presidency) while Democrats seem to be less responsive when they are receiving more money. Overall, donors may be limiting how responsive the senators are to public opinion.

4.1 Presidential Approval and Presidential Success

Neustadt (1980), in his book on presidential authority, outlines three essential sources of presidential power: the president's place in the government, his reputation in Washington, and his popularity outside of Washington. Of these, the effect of presidential popularity on overall presidential effectiveness has generated considerable scholarly interest. Simply put, if Neustadt correct, when the president is more popular (or in Neustadt's terminology has more prestige), he will be able to get more of his laws passed in Congress.

Studies on the relationship between presidential approval and support for the president's legislative agenda have taken a variety of analytical approaches, and have generally been supportive of Neustadt's hypothesis. Early work on presidential approval and success relied on longitudinal methods. Many of these studies were supportive of Neustadt's theory. Edwards (1980) conducted one of the first quantitative analyses at the aggregate level, and found that presidential approval was correlated with levels of presidential support. Other scholars have used higher levels of resolution, as well as different measures of presidential success to confirm that higher levels of approval helped advance the presidential agenda (Rivers and Rose, 1985; Ostrom Jr. and Simon, 1985).

While some studies have used aggregate measures of success, others have looked at individual bills to gauge success. Scholars have found that high levels of national approval around the time of a roll call vote increases the probability that the president wins legislative battles (Barrett and Eshbaugh-Soha, 2007). However, this may depend on the bills being salient to the public and complex (Canes-Wrone and De Marchi, 2002). This allows the president to achieve some success through stepping up to the bully pulpit to draw attention to an issue and make it salient (Canes-Wrone, 2001). Alternative operationalizations of presidential success do cast some doubt on the notion that higher levels of support increase presidential influence (Collier and Sullivan, 1995).

Studies of presidential approval that have examined the issue using district opinion have been somewhat mixed. For example, Cohen et al. (2000) look at the role of state-level

approval. This study was able to exploit polls conducted across all 50 states around the 1996 presidential election. Overall it finds sparse evidence for the notion that district level approval drives support of the president. However, polling was conducted for just one time point, during a somewhat unique legislative time frame (immediately preceding a presidential election). Other researchers have found evidence that district level opinion does matter for members of the House (Ponder and Moon, 2005).

Few scholars have used both geographic and longitudinal variation in studies of presidential success and presidential popularity. Cohen (2011) however does look at how both geographic and temporal variation in presidential approval affects legislative voting patterns. He does this by using a unique series of polls conducted during the middle of the George W. Bush presidency. These polls measured presidential approval in each state, during each month for a two-year period. Cohen averages these state-level polls by year and uses these estimates of state-level approval to predict support for the president's agenda in Congress by the state's senators for each of these years. Additionally, the state-level estimates of presidential approval were disaggregated by voter partisanship. Cohen finds that as the president becomes more popular in each state, that state's representatives become marginally more likely to support the president. However, senators seem to be most responsive to changes in approval amongst members of their own party. Overall, these findings lead me to my first hypothesis:

H1: *Higher levels of presidential approval in a state will be associated with increased levels of support for the president.*

4.2 When Approval Matters

Along with the question of "Does approval affect support of the president?" another interesting question is "When does approval affect presidential support?" The literature on when approval matters is sparser than the literature on whether approval matters. In this section, I argue that that one of the primary mechanisms through which presidential approval affects

legislators is through the electoral connection. Opinion of the president is a key lens through which voters evaluate politics. Politicians fear that voters will punish them for obstructing a popular president. Conversely, legislators should want to avoid being seen as enabling an inept president. In this section, I argue that factors that affect the electoral vulnerability of senators will condition the effects of presidential approval. Namely, factors that increase electoral vulnerability will make senators less responsive. In addition to providing insight into presidential success, this also may provide broader insight into factors that affect democratic responsiveness. Presidential approval is a highly salient and well-measured facet of public opinion. Factors that limit responsiveness to presidential approval will likely limit the responsiveness of legislators to public opinion in general.

Generally, the theoretical link between presidential approval (as well as other forms of public opinion) and congressional support stems from the electoral impacts of presidential popularity. This reasoning is in line with Mayhew (1974), who convincingly argues that the desire to be reelected is a significant driver of legislative behavior. For example, when the president is popular, members of the president's party perform better in midterm elections (Abramowitz, Cover and Norpoth, 1986). However, being in the party of an unpopular president does not always doom members of the president's party to electoral defeat. Gronke, Koch and Wilson (2003) look at survey data on voter perceptions of incumbent support for the president's legislative agenda. They find that if incumbents alter their levels of support for the president, voters are able to perceive this change. Voters use the level of perceived support, along with their own assessment of the president to determine if they will vote for the incumbent. So, if an incumbent frequently votes against the president, a voter will assess that incumbent as not being as supportive of the president. If the voter disapproves of the president, then the voter would subsequently become more likely to vote for the incumbent, while if the voter approved of the president, the voter would be less likely to vote for that representative (Gronke, Koch and Wilson, 2003). Functionally, this means that incumbents with an eye towards reelection should be cognizant of the overall level of

presidential approval in their district, and adjust their support accordingly. Therefore, when the president is popular, we would expect to see members increasingly support the president on legislation in order to capitalize on the president's popularity. Conversely, if the president is uniformly unpopular representatives will flee the president.

Overall, the relationship between opinion and reelection makes politicians responsive to public opinion. Miller and Stokes (1963) were some of the first researchers to explore the relationship between legislators and constituents. Their foundational study finds some evidence for legislative responsiveness to constituent preferences, though citizens did not appear to be overly aware of their representatives voting behavior. Longitudinal studies of American institutions as a whole also show responsiveness to public opinion. Scholars examining the relationship between public mood and policy have found that when the public shifts mood in a more liberal direction, the federal government adopts more liberal policies (Erikson, MacKuen and Stimson, 2002; Stimson, MacKuen and Erikson, 1995). Responsiveness has also been found at the state level. Erikson, Wright and McIver (1994) used state-level polls to obtain measures of state ideology and find that states with more liberal voters tend to have more liberal policies.

At the aggregate level, advanced time series models have allowed scholars to begin examining the question of when presidential approval influences the propensity of legislators to support the president. Bond, Fleisher and Wood (2003) use Kalmann filtering to explore how the relationship between approval and support of the president has varied over time. Their findings suggest political polarization may be decreasing the impact of approval on presidential success. In addition to polarization, the electoral landscape of the district may affect responsiveness to approval. For example, Borrelli and Simmons (1993) argue that the representatives from electorally unsafe districts should be more responsive to approval. Overall, members from unsafe districts have less room for error; any mistake could end up costing them the election. The key takeaway from both of these pieces is the electoral connection between approval and supporting the president. Factors that increase the electoral

safety of legislators, or decrease the variability in the electorate (like polarization) make members less responsive to shifts in public opinion.

While responding to opinion in the district is clearly an important component to being reelected, it is far from the only factor influencing the outcome of elections. Even if representatives effectively represent their district, they need to be able to communicate their positions and competence to the general public. Conversely, if politicians are in a contested election, they need resources to defend their seat. For example, advertising can have persuasive effects on voters (Huber and Arceneaux, 2007). Overall, spending more money helps candidates win elections (Gerber, 1998).

Along with the importance of money during the actual campaign, money can also be exceptionally important before a campaign even begins. Perhaps one of the most vital ways money helps incumbents is by deterring quality challengers. The emergence of a quality challenger does not bode well for the reelection chances of an incumbent. However, these quality challengers tend to be strategic when deciding to run for office; when a challenger is more likely to win, a quality challenger is more likely to run (Jacobson, 2010). One way in which challengers can judge an incumbent's electoral vulnerability is by considering the incumbent's access to cash. If an incumbent has access to a large amount of cash, then the challenger will likely be in for an uphill battle and is therefore less likely to run (Box-Steffensmeier, 1996). This deterrent provides strong incentives for incumbents to stockpile money. By doing so, incumbents can prevent quality challengers from entering the race, thereby increasing their chances of being reelected.

Since one of the primary pathways for approval to affect presidential support is through electoral accountability, circumstances that make legislators more secure may also serve to temper the impact of approval on legislative behavior. Monetary resources serve to make incumbents more secure, so when legislators are more successful raising money, they may not be as constrained by public opinion.

Current research into policy responsiveness shows that there may be a growing disconnect

between public opinion and legislators. Recent explorations of state-level public opinion on individual issue areas have found evidence of a possible conservative bias in policy implementation (Lax and Phillips, 2012). Studies of national politics have also found discrepancies in policy responsiveness and public preferences. Gilens (2012) look at differences in public opinion between rich voters and poor voters and find the political system is much more likely to respond to changes in rich policy preferences. Overall these studies are suggestive of a growing disconnect between legislators and the general public.

Along with growing evidence of declining democratic responsiveness, political donors may be gaining more influence. Recent experimental evidence shows that it is much easier for political donors to meet with legislators than regular citizens (Kalla and Broockman, 2015). Others have conducted surveys of political donors indicate that the political preferences of legislatures closely align with the preferences of donors (Barber, 2014). The behavior of donors themselves indicates donors may exert significant influence over policy outcomes. For example, as industry contributions to the government increase as exposure to government regulation increases, and donors become more likely to donate to a legislator when that legislator is on a committee that affects their interests (Grier, Munger and Roberts, 1994; Romer and Snyder Jr., 1994).

Clearly, one possible driver of declining responsiveness to public opinion may be the influence of political donors. Since presidential approval is a well known, and important aspect of public opinion, I propose using it to test whether political donors are tempering democratic responsiveness. This leads to my second hypothesis.

H2: *Fundraising will temper the affect of approval on support for the president.*

4.3 Partisan Asymetry

Another factor that might condition the responsiveness of senators to public opinion and donors is the partisanship of the senator. Theoretically we may expect this due to a number of reasons. For example, Republican donors may be more active than Democratic donors.

This was thoroughly demonstrated in the first chapter. Secondly, this analysis is confined to President Bush's presidency. Scholars have found that the president's agenda is an important domain in which parties compete (Lebo and O'Geen, 2011). When the president is more successful, his party tends to be more successful in elections. Therefore partisan donors might push harder to maintain loyalty and advance the presidential agenda. Conversely, the fact that any objectionable policies could be vetoed by the president may make Republican activists more complacent. Partisanship may also condition the responsiveness of legislators to public opinion, as previous research has shown that Republican senators are more responsive to changes in opinion within their own party than within the public at large (Cohen, 2011).

H3: *Partisanship will condition responsiveness to approval and donors.*

Data and Methods

4.3.1 MRP and Presidential Approval

Overall, two separate approaches have dominated the study of approval and presidential success: those that rely on temporal variation and those that rely on geographic variation. However, studies that rely on higher levels of aggregation (i.e. yearly) ignore important variation in presidential approval that occurs throughout the course of the year. Additionally, these studies implicitly assume that a sort of geographic homogeneity exists in changes to presidential approval. However, it would be very easy to find cases in which the president is more popular in one area of the country than in another. Geographic political polarization makes this especially likely (Theriault, 2008). Studies that use cross-sectional data can account for geographic heterogeneity. This approach though misses out on important information about how representatives may respond to changes in presidential approval. For example, what if the president starts with high levels of popularity and loses popularity within a district? Or, are districts predisposed to support the president electing representa-

tives that are also predisposed to support the president (or vice versa)?

The main hurdle to estimating approval for states is the fact that there are comparatively few polls conducted at the state level. Nevertheless, there are a large number of national polls conducted. Recent methodological advances have made it possible to generate credible estimates of state-level opinion from these national polls. This technique, called Multilevel Regression with Poststratification (MRP) is a two-stage process in which the first stage uses geographic and demographic variables to predict political attitudes. The second stage uses estimates from the first stage to predict political attitudes for demographic subgroups within each state (Lax and Phillips, 2009). These estimates are weighted by the size of the demographic subgroup relative to the population of the state. Summing the subgroup estimates in each state provides an estimate of state-level opinion.

Scholars have been successful in using MRP to explore how institutions and politicians respond to public opinion. For example, MRP has been used to examine how public opinion on gay marriage has changed (Lax and Phillips, 2009), how the opinion on Supreme Court nominees affects confirmation votes (Kastellec, Lax and Phillips, 2010), and how ideology varies in congressional districts (Warshaw and Rodden, 2012). One shortcoming of these first generation MRP models is that they work by pooling a large number of surveys, and then estimating the first-stage opinion models on the pooled responses. In some ways, this is helpful since it provides a large enough sample size to get accurate estimates. However, pooling comes at the cost of leaving out important temporal information contained in the data.

Scholars have begun to use MRP techniques that embrace the temporal nature of public opinion data. For example, Enns and Koch (2013) run separate MRP models at the yearly level to generate state-level estimates of public mood. Others have used a moving average approach that uses survey respondents from adjacent time points to infer state-level opinion (Pacheco, 2011). By separately estimating a series of separate opinion models, these methods are making the implicit assumption that each time period is independent of previous

time points (Caughey and Warshaw, 2015). However, extensive research into public opinion indicates that it is a long-memoried process (Lebo, Walker and Clarke, 2000). If public opinion from last month is a good predictor of opinion today, it stands to reason that estimates of opinion from last month can be used to better estimate public opinion today. Newer MRP techniques have begun to incorporate the memoried aspect of public opinion into the first stage opinion models. For example, Shirley and Gelman (2014) employ an approach that uses a Bayesian multilevel model to jointly estimate opinion for each state at each time point. Their approach is especially intriguing since it uses estimates of the quarter level intercept from *t - 1* (weighted by an AR parameter) as a starting point for estimates at time *t*. This allows the model to use the memory present in the series to produce more precise time-varying parameter estimates. Caughey and Warshaw (2015) take this approach one step further, and use dynamic linear models to incorporate past information into estimates for the both the state-level and demographic parameters at each time point.

In order to estimate the approval model, I obtained polls from the Roper Center archives of Gallup polls. For each month in the Bush administration, I collected one poll that asked about presidential approval. All of the polls contained information about relevant demographic characteristics (age, gender, race, education). I excluded Hawaii and Alaska, due to the fact that they were frequently excluded from polls.[24]. This gives an aggregate survey size of 98K. To limit problems from sparse data, I grouped the polls by quarter. Overall there were about 3,000 respondents in each quarter.

My model incorporates the time based opinion models used by Shirley and Gelman (2014) and Caughey and Warshaw (2015) . In first phase of the MRP process, I fit the model outlined in Equation 1. Individuals are denoted with i, states with s, quarter with t and demographics with d.

$$p(Y_i = 1) = logit^{-1}(\alpha^{quarter}_{t[i]} + \alpha^{state}_{(s,t)[i]} + \beta^{demo}_{t} X_{(d,t)[i]}) \tag{6}$$

[24]Roper did not have a dataset that asked about presidential approval in September of 2006. I used a poll from Fox News as a replacement

Essentially, I use a Bayesian multilevel logit model in which the probability that respondents approve of the president is a function of the quarter in which they are observed, the state in which they are observed, and their demographic characteristics. A key feature of this model is that I generate estimates of the geographic and demographic parameters for each separate time point. For each of these parameters, I use the estimates from the previous quarter as priors for the current quarter and then weight these by an AR parameter. The AR parameter ϕ serves as an estimate of the persistence in the series.

$$\begin{aligned} \alpha_{s,t}^{state} &\sim N(\phi^{state}\alpha_{s,t-1}, \sigma_{state}^2) \\ \alpha_{t}^{quarter} &\sim N(\phi^{quarter}\alpha_{t-1}, \sigma_{time}^2) \\ \beta_{t} &\sim N(\phi^{demo}\beta_{t-1}, \sigma_{demo}^2) \end{aligned} \tag{7}$$

To obtain estimates for the first quarter, I used diffuse, non-informative priors for all parameters. In order to obtain better estimates of the state-level effects, I included Bush's vote share in the first election as a state-level predictor in the first period. This should improve the estimates of the state-level intercepts (Buttice and Highton, 2013). I fit the model using the *Rstan* package.

As Caughey and Warshaw (2015) observe this model has a number of attractive features. For example, one problem with stretching the pooled sample over multiple time points is that there are frequently geographic units for which there are no observations. However, by incorporating information from previous time periods, the model automatically imputes reasonable estimates, even when there are no observations. One disadvantage of this approach is that it is computationally intensive.

Following the estimation of the opinion model, I used the parameter estimates to estimate the predicted levels of support for each demographic subgroup within each state for each quarter. I then weighted each of these subgroups by the population proportion and summed them to obtain the estimated level of approval. Demographic subgroup data were obtained

from IPUMS, who in turn obtained the data from the Census Bureau. Since the data are updated based on the ACS survey, I was able to use yearly estimates of population subgroups to weight my estimates (King et al., 2010). I used gender, race,[25] education,[26] and age[27] as the demographic variables.

Figure 4.1 shows state-level approval over the course of the Bush presidency. Dark red shades indicate high levels of approval for President Bush, while dark blue shades indicate low approval. Looking at this, we can see that in the quarter after 9/11, his approval was universally high. However, by the 2004 election overall approval is down, and there is geographic divergence in approval. At the end of the Bush term, it is clear that approval was almost universally low, with only states like Wyoming and Utah approving of Bush's performance.

Figure 4.2 shows the results from the MRP model for two states: New York and Wyoming. Here we can see that though approval dropped for both states it fell far more in New York. Such a discrepancy would not be picked up in approaches that use aggregate approval. However looking at the evolution of the two series, they do share a lot of similar movements. Generally, when opinion rises in New York, it also rises in Wyoming. This similarity suggests that much of the movement in the series may be driven by the function that estimates the aggregate quarterly parameter.

4.3.2 Methods

The dependent variable is senatorial support for the president. To operationalize this, I simply obtained roll call votes on which the president had taken a position. I then grouped these by senator and quarter, and obtained the percentage of times a particular senator voted in support of the president's preferred position in that quarter.[28] So a score of 100 percent would indicate perfect support, and a score of 0 would indicate no support. In order

[25] Black and Other
[26] No High School, High School, Some College, and College Degree
[27] 18-29, 30-49, 50-65, 65+
[28] Excluding votes for which that senator was not present.

Figure 4.1: State-level Presidential Approval Over the Course of the Bush Presidency

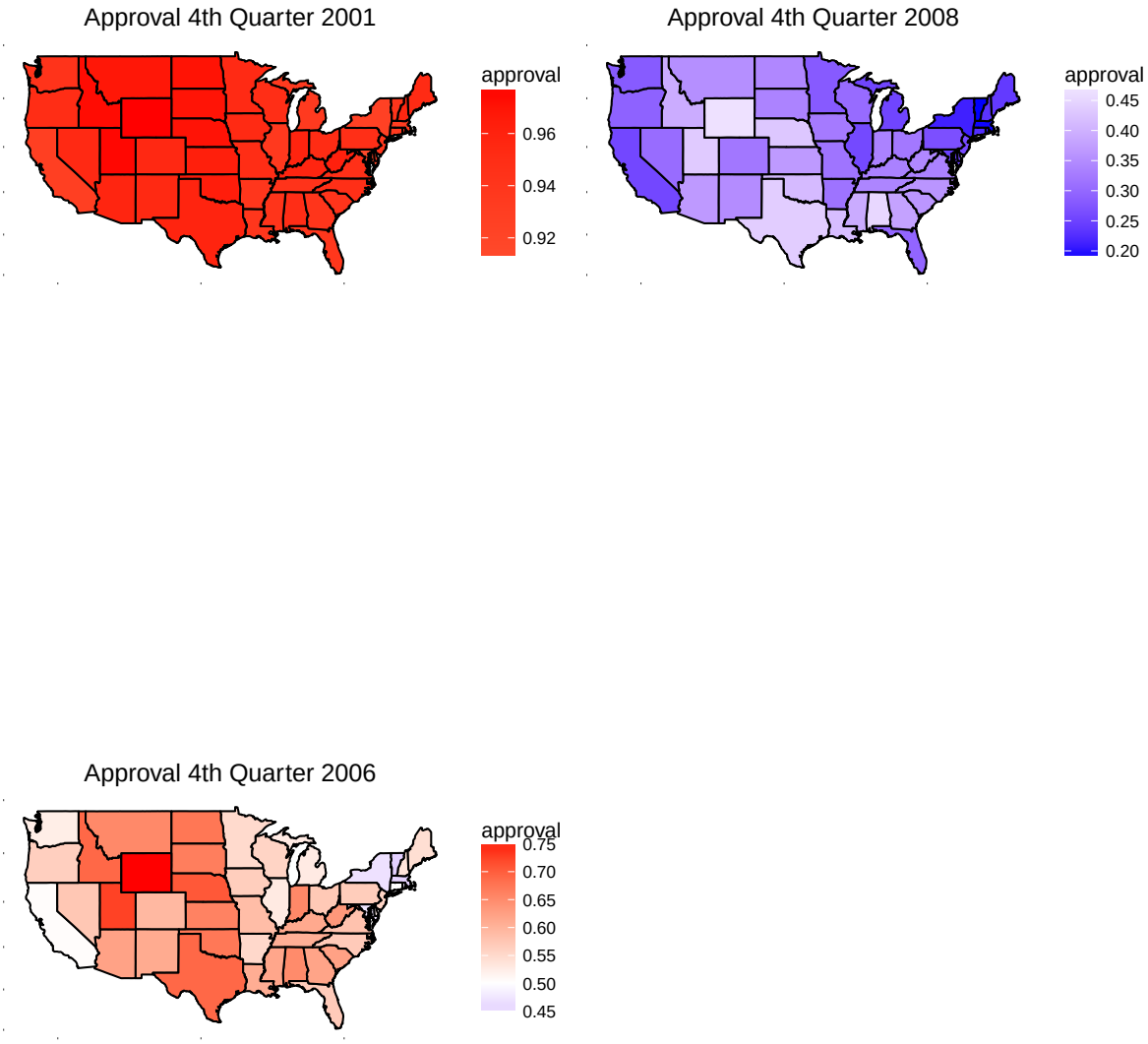


Figure 4.2: The Evolution of State-Level Approval of President Bush in New York and Wyoming by Quarter

Note: Approval is listed as a proportion. Time is quarterly.

to test the impact of state-level approval, I use the MRP estimates.

My other hypothesis posits that political donors may moderate the impact of approval on support for the president. In order to measure potential donor influence, I used the contribution records from Bonica's DIME database, who obtained contribution data from the FEC (Bonica, 2013). FEC contribution records contain all contributions over 200 dollars and include information on which candidate received the donation, the amount donated, and the date the contribution was received. To obtain the donation figure, I summed the total number of donations a senator received in a given quarter.

One concern with these data is that unobserved factors that vary by senator (but do not change over time) could be biasing the estimation of coefficients. For example, certain senators may have a special affinity for the president, or may have innate ideological pre-

dispositions that affect how they support the president. If any of these unobserved factors are correlated with donations or state-level approval, then this could lead to biased estimates. In order to account for these unobserved factors, I use a dynamic panel approach. In these models, I difference both my independent variables and dependent variables. So support for the president becomes the change in levels of support for the president, while approval becomes the change in state-level approval for the president. Differencing removes any senator-level effects that could be biasing results. Essentially, by differencing, the impacts of any time invariant factors are removed (Allison, 2009). This allows me to rule out a host of potential confounding variables and make a stronger causal claim.[29] However, I also hypothesize that the effect of approval will differ by partisanship. In order to model and account for this, I include a dummy that indicates party status and interact this dummy with differenced approval. This interaction allows the coefficients on differenced approval to vary by partisanship.

To test whether political donors can mute responsiveness to public opinion, I also fit another set of models in which I interact differenced donations with differenced (and lagged) approval. If my hypothesis is correct, then the coefficient on the interaction term should be negative and significant. Additionally, I include another set of models in which I examine whether the effects of donations and approval differ by the electoral status of the senator. These models exploit the fact that senators are not always up for reelection by interacting my (differenced) independent variables with a dummy variable indicating whether a senator is up for reelection. Again, this will allow for tests of whether the coefficients vary as a function of reelection status.

In addition to differencing, the temporal nature of my data allows me to include lagged variables. Since it may take times for the results of polls to disseminate, and, more importantly, since state-level polls are not frequently conducted, it may take some time for information about changes in the popularity within their state to filter to senators. In order

[29]My results may still be biased by any time-varying omitted variables.

to account for the fact that the acquisition of this information would not be instantaneous, I include the lagged difference in presidential approval. Since assessing changes in fundraising success is as simple as examining an account balance, it is expected that these effects would be felt almost instantaneously. Therefore I include differenced donations without a lag. Lagging variables may also provide additional insight into causality. For example if changes in approval precede changes in support of the president, it is more likely that changes in approval are driving changes in support of the president's agenda.[30]

In order to test my hypotheses, I use multilevel linear models. In addition to being nested within legislator, each observation is also nested within time. Group level heterogeneity can bias estimates of standard errors and cause incorrect hypothesis tests (Gelman and Hill, 2007). To address any quarter based clustering, I allow intercepts to vary by quarter. Allowing these intercepts to vary should account for the group level heterogeneity and improve the accuracy of the hypothesis tests (Steenbergen and Jones, 2002).

4.4 Results

Table 4.1 shows how changes in approval affect changes in the aggregate level of support for the president during each quarter. Table 1 shows the simple model in which there are no interactions. Here changes in approval are both statistically and substantively significant. If support in the state increased by 1 percentage point in the previous quarter, senators respond by changing their average level of support by about 1.5 percentage points. This provides strong support for the hypothesis that presidential support affects how supportive of the president senators are. In the Senate as a whole, changes in donations do not seem to significantly affect levels of support for the president, as the coefficient is insignificant. The coefficient on the interaction between differenced donations and differenced (and lagged) approval is insignificant, which does not provide strong support for the notion that donations

[30]If the effects were contemporaneous, it may be possible to argue that opinion is changing in response to elite cues. It would be difficult to make the case that voters are predicting how supportive of the president their senators will be in the future, and adjusting their approval based on these predictions.

Table 4.1: Determinants of Changes in Presidential Support in the U.S. Senate

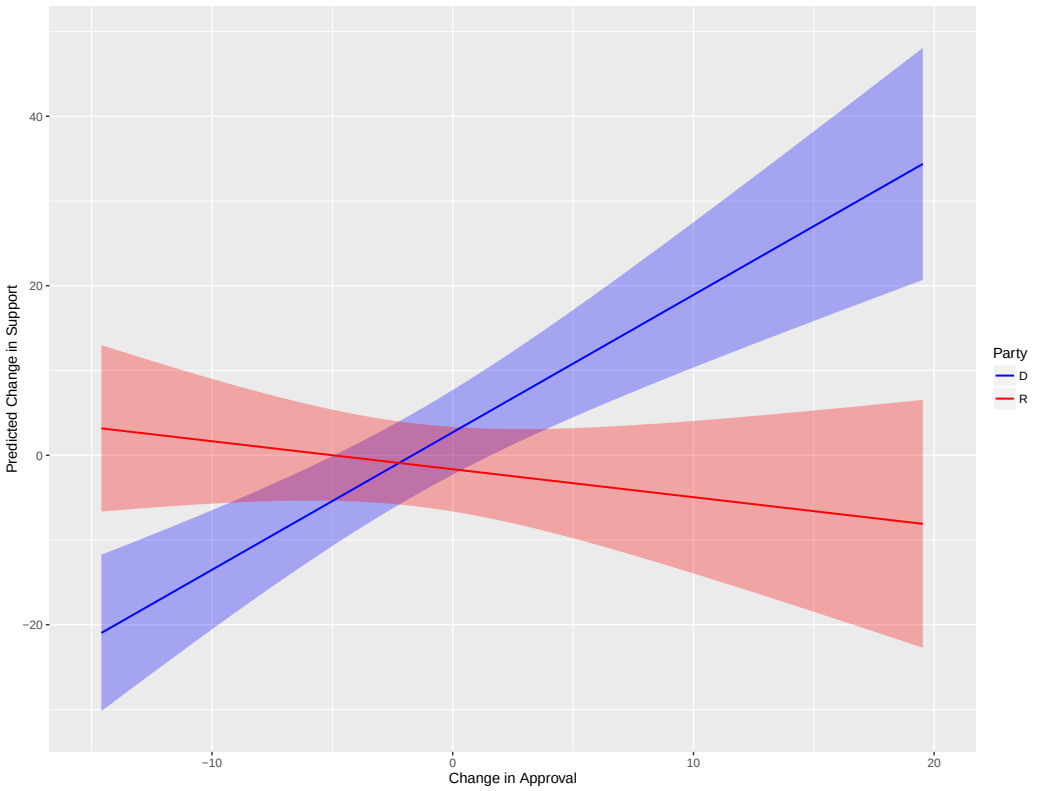
	Change in Level of Presidential Support		
	(1)	(2)	(3)
Donations Differenced	−0.007	−0.002	−0.022
	(0.012)	(0.012)	(0.018)
Approval Lagged Difference	1.428***	1.622***	1.444***
	(0.315)	(0.308)	(0.315)
Dif Donations * Republican			0.027
			(0.024)
Republican		−4.353***	−1.358*
		(0.748)	(0.747)
Dif Lag Approval * Republican		−1.952***	
		(0.139)	
Constant	1.706	2.705	2.459
	(2.518)	(2.550)	(2.556)
N	2,308	2,308	2,308
Log Likelihood	−9,977.958	−9,882.809	−9,977.885
AIC	19,965.920	19,779.620	19,969.770
BIC	19,994.640	19,819.830	20,009.980

*p < .1; **p < .05; ***p < .01

will temper the impacts of approval on support for the president's agenda.

In the second model in Table 4.1, I test to see whether there are partisan differences in how senators respond to changes in presidential approval within their state. To do this I interact partisanship with changes in approval. Partisanship was dummy coded so that a 1 indicated the senator was a Republican and a 0 indicated that the senator was a Democrat. The coefficient on the interaction term tells us how the slope on approval changes depending on the partisanship of the senator. This coefficient is negative and statistically significant, meaning that approval has a smaller effect on Republicans than on Democrats. The best way to visualize this interaction is visually. Looking at Figure 4.3 we can see that the slope on Democrats is much steeper than the slope on Republicans. Functionally, this means that Republicans were not as responsive to changes in approval as Democrats. In fact, there is no statistically significant relationship between changes in approval and changes in support of the presidential agenda for Republicans.

Figure 4.3: The Effects of Changes in Lagged State-Level Presidential Approval on Changes in Senatorial Support of the President's Agenda by Party



Note: Graph shows the predicted change in support of President Bush's agenda during a given quarter over lagged changes in approval. Approval is in percentage points. Change in predicted support of the President's agenda is in percentage points.

The third model in Table 4.1 shows whether there are differences in how the parties respond to changes in the amount of donations that they receive. Like approval, I interacted this variable with partisanship. Here we can see that the interaction term is insignificant.

Along with partisanship, another factor that may affect how responsive senators are to changes in state-level presidential approval is whether they are up for reelection. In the next set of models, I look at whether a senator's relative safety (i.e. if the senator is up for reelection) affects responsiveness to approval. Since there are partisan differences in how responsive senators are to changes in presidential approval, I subset these analyses by party.

Table 4.2 shows the results for Democratic senators. In the first model, which lacks

Table 4.2: The Determinants of Change in Support for the President's Agenda for Democratic Senators

	Change in Level of Presidential Support		
	(1)	(2)	(3)
Donations Differenced	0.006	0.007	0.047
	(0.015)	(0.015)	(0.033)
Approval Lagged Difference	0.859**	0.820*	0.873**
	(0.425)	(0.426)	(0.424)
Dif Donations * Up Reelection			−0.051
			(0.037)
Up Reelection		0.587	0.291
		(0.969)	(0.930)
Dif Lag Approval * Up Reelection		0.186	
		(0.171)	
Constant	1.467	1.301	1.407
	(4.412)	(4.419)	(4.413)
N	1,064	1,064	1,064
Log Likelihood	−4,416.344	−4,415.706	−4,416.883
AIC	8,842.688	8,845.412	8,847.765
BIC	8,867.537	8,880.201	8,882.554

*p < .1; **p < .05; ***p < .01

interactions, lagged changes in approval are significant, while changes in donations are insignificant. In order to see whether electoral status affected how responsive senators were to changes in approval, I interacted approval with an indicator for electoral safety. The coefficient on this term is insignificant, which indicates that Democrats do not adjust their responsiveness to changes in approval based on changes in electoral safety. The interaction between donations and electoral status is also insignificant.

While electoral status does not appear to change the responsiveness of Democrats to voters and donors, it does seem to affect Republicans. Table 4.3 shows the results of my analysis on Republican senators. In the first, simple model, neither changes in donations nor changes in approval affect changes in support of the president's legislative agenda. Likewise, when reelection status is interacted with approval, all variables are insignificant. However, when the change in donations is interacted with electoral status, there is a negative and

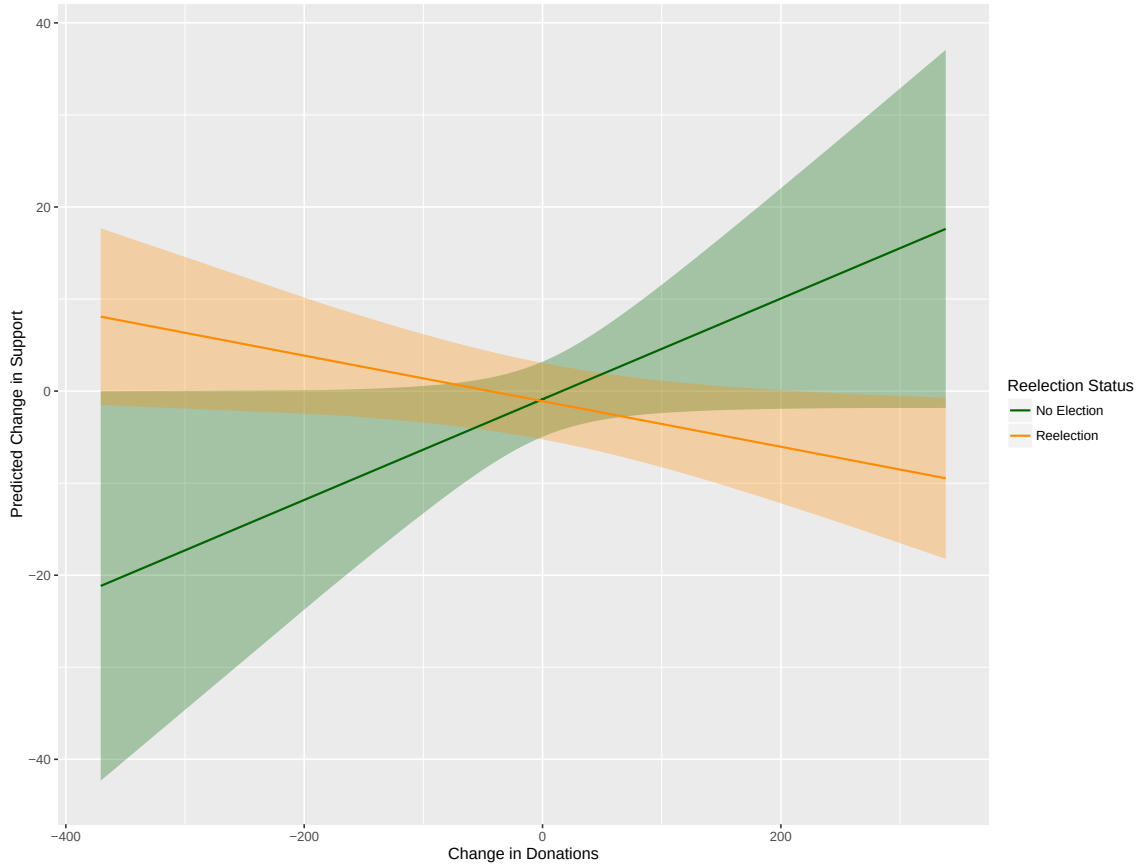
Table 4.3: The Determinants of Change in Support for the President's Agenda for Republican Senators

	Change in Level of Presidential Support		
	(1)	(2)	(3)
Donations Differenced	−0.013	−0.013	0.055*
	(0.011)	(0.011)	(0.029)
Approval Lagged Difference	0.198	0.175	0.220
	(0.297)	(0.301)	(0.298)
Dif Donations * Up Reelection			−0.079**
			(0.031)
Up Reelection		−0.114	−0.209
		(0.757)	(0.722)
Dif Lag Approval * Up Reelection		0.063	
		(0.145)	
Constant	−0.702	−0.664	−0.546
	(2.102)	(2.119)	(2.131)
N	1,244	1,244	1,244
Log Likelihood	−4,892.137	−4,892.417	−4,890.769
AIC	9,794.275	9,798.834	9,795.538
BIC	9,819.905	9,834.716	9,831.421

*p < .1; **p < .05; ***p < .01

significant interaction. Functionally, this means that donors have less influence on whether Republican senators support the president when those senators are up for reelection. The coefficient on donations is positive and significant. This means, that when senators receive more donations than in a previous quarter, they increase their level of support for the president's agenda. This is best illustrated by Figure 4.4 which shows the predicted changes in support for the president's agenda based on changes in donations. Here we can see a sharp upward slope on safe Republican senators, indicating that when they receive more money in a quarter, they increase their support of President Bush's agenda. However when we look at Republican senators that are up for reelection, there is a very small downward slope, and zero is always within the confidence interval. Overall this suggests donors have a significant effect on the voting behavior of Republicans, while the general public is less influential.

Figure 4.4: The Effects of Changes in Donations on Changes in Republican Senatorial Support of the President's Agenda by Reelection Status



Note: Graph shows the predicted change in support of President Bush's agenda during a given quarter over differences in donations. Donations are in 100s of dollars. Change in predicted support is in percentage points.

4.5 Discussion

Overall, these results have a number of important implications. First, this analysis shows how MRP can be used to generate estimates of presidential opinion over multiple points in time. Fundamentally this means that this technique can be used to extract considerably more information from national polls. Second, these results provide evidence that presidential approval affects whether senators support the president. However, the nature of this relationship is dependent on party.

The difference between Democrats and Republicans is also of significant interest. Re-

publican senators seem to be primarily swayed by changes in donor behavior (though this may be a case of reciprocal causality). One plausible explanation for this is that Republican senators may focus on building up their campaign war chests, and try to appease donors in order to do so. Then, when an election cycle is up, they focus on appearing in step with their district. Alternatively, this may indicate that Republican senators are more responsive to party activists and other members of their own party. In this case donors are not necessarily directly influencing legislators, rather they are serving as a proxy for support from party activists. Given the recent fates of prominent Republican politicians like Eric Cantor and Richard Lugar, Republicans may have a greater need to keep their partisan base happy in order to deter primary challengers.

The conclusions of this paper are limited by its focus on just the Senate and just one presidency. Expanding beyond the Bush presidency might provide insight into whether the party differences are a function of structural factors, such as which party controls the presidency, or whether this is due to differences in the structure of the parties. Since the Roper Center has polls going back all the way to the 1930s, this would be feasible.[31] Moreover, it may be possible to use MRP through time to estimate approval at the level of House districts. Most of the Gallup polls collected for this paper include information on the respondent's congressional district, which could be used to estimate the district level effects. Estimating this model though would be computationally intensive, but would provide valuable insight into the dynamics of the House.

Overall, this study sets a framework for further explorations into the intersection of opinion, donors, and legislators. For example, roll call votes are held on bills that touch on a vast array of interests. It may prove to be informative to incorporate information about the different types of bills considered by Congress that are on the presidential agenda. This will be helpful in answering questions about on what types of issues opinion matters, and

[31]Due to formatting though, inputting and reconciling these earlier polls is a much more labor-intensive process than using the more modern polls. Furthermore, the sampling techniques in very early polls may not be appropriate for MRP

on what types of issues donations matter. Furthermore, Bonica's DIME database contains a great deal of data about the donors themselves, such as location, occupation, and even ideology. Incorporating this information would aid in answering questions about whether certain kinds of donors serve to limit democratic responsiveness.

Finally, if we consider legislative responsiveness to changes in presidential approval to be a representation of overall democratic responsiveness these results have important implications for the overall health of democracy. If one party primarily responds to donors instead of constituents, this suggests donors may have an outsized role in politics. In turn this may explain the gaps in representation observed by scholars. Furthermore, it suggests that reforms to the campaign finance system may have the potential to affect how responsive government is to the public.

Chapter 5

5 Conclusion

In describing the puzzle of polarization, I first talked about the paradoxical nature of the problem; Congress is polarized, but the public dislikes excessively high levels or partisanship. Why then is Congress polarizing? Given the prominence of money in politics, it is not shocking that political donors have played an important role in political polarization. They are increasingly rewarding MCs for party line voting. Meanwhile, MCs seem to be able to use campaigning to alter how voters perceive their ideological extremity. In short, donors may be creating both the incentives and the space for Congress to polarize.

In the second chapter of this dissertation, I looked at how donors may be incentivizing members of Congress to polarize. To do this I explored the relationship between party-line voting and political donations in the House of Representatives. Most importantly though, by using ARFIMA-MLM models I was able to assess how this relationship has been changing over time. Overall, due to the increasing polarization of political activists, I expected donors to be a significant driver of polarization. My analysis shows that party-line voting is associated with higher levels of donations, and the strength of this relationship has been increasing. Methodologically I expanded the ARFIMA-MLM model to include a seasonal component and showed how ARFIMA-MLM could be used to analyze contribution records. Furthermore, I demonstrated the utility of the ARFIMA-MLM model in distinguishing aggregate trends from individual relationships. By looking at both aggregate trends and individual relationships, I was able to show how the individual relationship between party unity was increasing, while aggregate movements were unrelated. Perhaps the biggest surprise though was that these effects are primarily concentrated in the Republican party. Overall this suggests that Republicans in Congress face increasingly strong incentives to be loyal partisans in Congress, and Republican donors may be some of the principle drivers of polarization.

The third chapter of my dissertation turns to the next part of the puzzle and looks at how politicians may be using this money to escape the consequences of their extremity. By pairing data on campaign advertisements with survey data, I show that when an incumbent has an advertising advantage, voters perceive that candidate to be slightly closer to them ideologically. However, genuine roll call extremity does still have a substantial effect on how voters perceive incumbents. Rather than erase the effects of extremity, spending on campaigns may serve to offset a portion of the costs of extremity and provide cover for MCs to polarize slightly more than they otherwise would. Interestingly, this effect may be mediated by candidate competition in non-ideological dimensions like candidate valence characteristics. Most importantly though is the fact that these results provide a link between actual political spending and polarization; by providing politicians with the means to alter voter perceptions of their extremity (more money for ads), donors can help candidates help escape the consequences of extremity.

If politicians can become more extreme in order to raise more money, and then use the money to offset the consequences of extremity, they may find it advantageous to work to keep activist political donors happy. This is especially true if these activists are also using primaries to help enforce party loyalty. The fourth chapter of my dissertation examines this issue and explores whether politicians are responsive to public opinion or political donors. By looking at presidential approval (a well known and well measured component of public opinion) and support for the president's legislative agenda I explore factors that influence changes in presidential approval. Overall I find stark partisan contrasts in responsiveness to political donors and public opinion. Democrats appear to be highly responsive to changes in presidential approval when deciding whether to support the president. However, Republicans seem to be primarily influenced by the activity of political donors. Though the limited time frame of analysis limits the generalizability of the results, when taken in conjunction with the results of the two other empirical chapters, this chapter suggests that the rise of activist donors in the Republican party may be limiting how responsive Republican legislators are

to the general public.

5.1 Future Research

Overall this dissertation outlines a number of future paths of research. First, this dissertation does not examine the influence of PACs, interest groups, and party committees. These organizations might serve as additional conduits to fuel political polarization and maintain party loyalty in Congress. Future research into how roll-call voting intersects with donations to party committees might provide more insight into whether party organizations are affected by roll-call voting. If the Democratic or Republican party achieves more legislative success, then perhaps individuals donate more to the party organizations. Along the same lines, it may be illuminating to examine the fundraising prospects of challengers. Could donors also punish incumbents by funding either a primary or a general election challenger? Finally, these results suggest that examining the motivations Republican donors may explain why they are increasingly rewarding Republican politicians for extremity. Is it the case that the motivations of donors today are different from donors a few decades ago? Or, is the alignment of power within parties shifting so that ideologues and extremists are acquiring more power and resources. Continuing to study campaign finance data will be useful in answering these questions.

Further research into how politicians are using advertising to influence the beliefs of voters should also be informative. For example, certain types of advertisements may be more effective than others in altering voter beliefs about candidates. Additionally, there may be heterogeneity in the responsiveness of individuals to the advertisements. For example, Zaller (1992) finds that individuals that are moderately engaged in politics are more likely to respond to political messaging. If this was true, the changing media environment might affect how prone voters are to manipulation by campaigns.

Chapter 4 shows that the effects of political donors on democratic responsiveness deserves more examination. While presidential approval may serve as a useful proxy for responsive-

ness, it is far from the only way to measure responsiveness. Instead, it may be informative to measure district-level ideology, and see if legislators respond to changes in district ideology or changes in preferences on specific policy issues. Additionally, broadening the analyses beyond the Bush presidency would help determine if the results of Chapter 4 were due to control of the presidency rather than inherent differences between the parties. Finally, broadening these analyses to include the House may also show whether partisan differences in responsiveness are just a Senate phenomenon (Though polls frequently lack detailed data on the geographic location of poll respondents).

Broadly, the results of this dissertation have important implications for how we should view campaign finance reform. Given how drastically the relationship between donors and Republican legislators has changed, reformers that wish to use campaign finance laws to change the environment in Washington should also carefully consider not just how these laws will affect the overall flow of money into Washington. Instead, reformers should also consider how these changes would affect the relationship between donors and lawmakers. If a law reduces the amount of money flowing into the political system but does not reduce the incentives for legislators to polarize, it is unlikely that such a law would effectively reverse polarization. Continued research into these relationships may allow for changes that promote a more productive environment in Washington.

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