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Looking for an Electoral Blind Spot: The Effects of Information and Partisanship on Perceptions of Candidates' Ideology and on Electoral Outcomes

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A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Political Science

by

William E. Peris

2018

ABSTRACT OF THE DISSERATION

Looking for an Electoral Blind Spot:

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by

William E. Peris

Doctor of Philosophy in Political Science

University of California, Los Angeles, 2018

Professor Lynn Vavreck Lewis, Chair

In a political environment where information competes with "fake news" and partisanship dictates what is believed, voters must separate the two or be deceived. Though accurate information about politicians and policies is available, misperceptions persist, and increasing polarization in the government and the electorate exacerbate the reluctance to consume information that conflicts with existing attitudes. In this paper I identify the sources of information that affect people's ability to correctly place Congressional candidates on the ideological spectrum and the factors that are associated with misperceptions of ideology. I draw on Bawn and Zaller's notion of the *electoral blind spot* to illustrate the degree and skew of misperception in the electorate. I do this for major candidates, both incumbents and challengers, for the US House of Representatives and US Senate between 2006 and 2014. Results suggest that voters are generally unable to discern degrees of partisanship in their candidates. Voters

tend to believe candidates are more moderate than they are in reality, and this effect is greater if a candidate is a voter's co-partisan. Additionally, voters project their own ideological self-identification onto their candidates: The distance a voter considers themself to be from the ideological center influences, proportionally, how far the voter perceives candidates from either political party to be from the center. I examine the relationship between these effects and electoral outcomes to find limited evidence that voters practice proximity voting generally, with only small vote share penalties for candidates who are distant from the mean voter, but I find an effect of misperception of candidate ideology in the outcome of those elections in which better informed voters are less likely to vote for more extreme candidates. The heterogeneity of misperception and the projection of one's own ideology onto candidates are previously unexplored, but not inconsistent effects on the conception of the *electoral blind spot*. In voter perceptions of moderation and the combined effect of misperception and candidate proximity, I find evidence consistent with the presence of an *electoral blind spot* as a set of policies or candidate positions over which the voter is indifferent.

The dissertation of William E. Peris is approved.

Kathleen Bawn

Robert W. Fink

Lynn Vavreck Lewis, Committee Chair

University of California, Los Angeles

2018

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List of Acronyms

CCES	Cooperative Congressional Election Study
DIME	Database on Ideology, Money in Politics, and Elections
TV	Television
TW	Tausanovitch and Warshaw
US	United States
WPM	Wesleyan Media Project

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CHAPTER 1: KNOWLEDGE, INFORMATION, AND PERCEPTION

1.1 Introduction

"You are fake news," explained then-President-elect Donald Trump to reporter Jim Acosta from CNN during one of his first post-election press conferences, during which the president-elect refused to take questions from CNN and other news networks whose reporting he didn't care for (Jamieson 2017). Though many of the stories he declared fake on that and subsequent occasions were thoroughly investigated by the media outlets that reported them and were arguably clearly accurate, the president continued while in office to disparage various news outlets with the "fake" label (Tapper 2017). Despite available information that the Trump's "fake news" claims were false, they resonated with his conservative supporters who are suspicious of what they consider biased news media, and who actually appear to trust the President more than even traditionally conservative media outlets ("Fox Populi" 2017). In fact, Americans of all ideological persuasions can fall victim to this tendency to believe false information, especially negative depictions of political opponents, even in light of clear evidence that so-called "fake news" is accurately reported, or that many popular stories are, in fact, fabricated ("The Rise of Left-Wing, Anti-Trump Fake News" 2017; Coppins 2017).

One explanation of this tendency toward misperception among Americans is that it may be caused by a simple lack of knowledge, where people just don't understand the facts presented to them or are unable to discern between evidence and bluster. The inability to see the difference between two competing ideas leads one to make a assessment of facts based not on the information itself, but on some other less relevant criteria: characteristics of the messenger or intensity of the argument, for example. In a strictly political context, this phenomenon has been

dubbed the *electoral blind spot*, an ideological space in which voters cannot credibly discern differences between candidates or policies, and, as a result, make voting decisions haphazardly, assessing new information without a clear reference to party (Bawn et al 2012). In an environment where voters have little political information, the blind spot is large, and misperception of reality is more likely. Yet even where information is plentiful, misperception about political actors and policy proposals is common, begging the question about what kinds of information is effective and what information sources are actually informing people, helping them recognize political facts. Consuming large amounts of information can still result in political misperceptions, as interpretation of available information can be influenced by the recipient's partisan leanings. People are inclined to believe information that reinforces their own beliefs about politicians or issues, and people of opposing ideologies can interpret general political information differently. A stronger ideological disposition will increase a person's resistance to information that conflicts with their existing political attitudes, and they will view new information through a *partisan lens*, filtering out conflicting information and leading them to interpret the remaining information to reflect their own partisan orientation (Barber and Pope 2017; Zaller 1992).

1.2 Looking for an Electoral Blind Spot

This dissertation builds on the concepts of the *electoral blind spot* and the *partisan lens* to examine several aspects of the relationships among voter information, partisanship, and electoral outcomes. It examines various sources of political information to identify which of those are influential in actually informing voters about candidate ideologies. Once identified, through analysis of those influences, I demonstrate that voters' perceptions of political candidates' ideology indicate both "blindness" to non-centrism and a tendency for partisanship to

influence how much of a candidate's ideology voters perceive as a function of their own partisan identification. I also find that there is a propensity among voters to perceive candidate ideology as a reflection of one's own degree of partisanship. The further a particular voter or, collectively, a congressional district tends to be from the ideological center, the further from the center they tend to perceive candidates to be. This *partisan mirror* effect often plays a stronger role in voters' perceptions of their congressional candidates' ideology than those candidates' actual ideological positions does. My research also demonstrates that there is an unexpected relationship between a candidate's perceived ideological proximity to their district's voters and electoral outcomes: as candidates move away ideologically from their district, their vote share tends to decrease, but in the infrequent cases that a candidate wins while being further from the district than their opponent, they tend to win when voters are *better* informed of the difference. Taken together, these findings indicate that the *electoral blind spot* and *partisan lens* concepts effectively describe much of the relationship between information, perception, and voting behavior: People often don't see non-centrism, and their inability to do so has a partisan influence, and the non-centrism they *can* see generally causes them to support a candidate less at the polls. However, partisan influence plays an even bigger role in people's perceptions than previously accounted for, to the extent that self-identification as an extreme partisan can supersede a lack of information and give a voter an increased visibility of a candidate's degree of partisanship, which can, in turn, actually *increase* the candidate's electoral support, even when the candidate is ideologically further from the district than their opponent.

1.3 Plan for the Dissertation

This research proceeds with the development of measures of information and a model of perception and misperception of candidate ideology, followed by a series of regression analyses

of the model, focusing on different aspects of the relationship between information, perception, and electoral outcomes. I begin in Chapter 2 with a review of the existing literature relating to voter information and the means by which people determine which candidate they will vote for. These decisions are generally made based on the information available to voters, which can come from numerous sources, including campaigns, political advertising, news media coverage, or cumulative exposure to the candidate across multiple elections and previous terms in office. I include a discussion of *proximity voting*, in which people tend to select candidates who are ideologically closer to themselves, and candidates tend to gravitate toward the median voter. A brief review of the literature of electoral accountability follows, describing whether voters punish or reward candidates, particularly incumbents, who move ideologically farther from or closer to their district's voters. I consider the existing explanations of the circumstances in which more ideologically extreme candidates succeed or fail in their elections, and under what circumstances voters tend to reject incumbent candidates. I then review the *electoral blind spot* concept itself to discuss how the information available to voters theoretically affects their ability to engage in proximity voting. I extend the original blind spot concept to its logical application in both the contexts of individual vote choice as well as district wide electoral outcomes given information generally available. An alternative explanation of the process by which voters process available information follows, examining existing ideas about viewing candidates and news through a *partisan lens*, including social influences on perceptions of political information.

In Chapter 3, I discuss the various methods I use to measure the amount of information or accuracy of voters' perceptions of candidates. Measures of these values are necessary for a statistical analysis of their effects on the outcome of elections. This discussion begins by establishing that an informed voter for my purposes is one with an accurate perception of a

candidate's ideology. To enable examination of both incumbents' and challengers' actual ideologies, I use data derived from the ideology of donors and supporters of each candidate in a given election from the Database on Ideology, Money in Politics, and Elections (DIME) to approximate the candidate's ideological positioning (Bonica 2013; Bonica 2017). I combine these data with campaign-related data from numerous sources, including the Federal Election Commission; the Cooperative Congressional Election Study (CCES); and the Wesleyan Media Project to calculate whether, and under what circumstances, voters more correctly perceive their candidates' ideology. My evaluation of candidate perception and misperception proceeds with analyses of both individual and aggregate district-level measures.

I develop in Chapter 4 a metric for *misperception* as a measure of the difference between a candidate's actual ideological position and a voter's or a district's perception of that candidate's position. I note that there is a significant difference in the misperception of a given candidate between co-partisan and opposite-partisan voters. Using a small (two campaign cycles) data set, I conduct a preliminary analysis using a number of different individual characteristics as descriptive variables, any of which might be expected to influence a voter's degree of political knowledge and therefore *misperception* of the candidate. I then aggregate those individual characteristics by congressional district and repeat the regression, including district- and campaign-specific variables like campaign spending and district mean ideology, revealing the tendency for voters to perceive candidates as more centrist than they really are, and to do so more with regard to their co-partisan candidates. This preliminary analysis helps to identify those relationships that will be significant in the more robust analyses to follow.

Chapter 5 builds on the preliminary model, expanding the data set to include US Senate candidates, additional electoral cycles, and a focus on those factors that the preliminary

examination showed to be most influential. This analysis reveals that many of the variables expected to influence misperception are significantly less important than incumbency and party identification. Voters, both individually and collectively, are generally unable to discern degrees of partisanship in their candidates, and there is a strong tendency to believe candidates are more moderate than they are in reality. This effect is greater if a candidate is a voter's co-partisan. Chapter 6 continues the investigation of the expanded data, here focusing on the relationship between voters' perception of candidates' ideology and the voters' own self-identified ideology. Again approaching the data first on the level of individual perceptions of candidates and then on an aggregated congressional district level of examination, I demonstrate a tendency for voters to project their own ideological self-identification onto their candidates.

In Chapter 7 I turn the focus to electoral outcomes, evaluating first whether there is empirical evidence of proximity voting, whether based on voter perceptions of their candidates' and their self-identified ideologies or more objective measures of the relative ideologies. I find only weak evidence of a tendency for voters to favor candidates who are ideologically closer to them, so I examine whether there is a tendency for better-informed voters to reject more non-centrist candidates. While such a tendency exists, I find that it is smaller for candidates seeking open seats, and relatively extreme challengers are more likely to win when voters perceive them as more extreme than they actually are.

With Chapter 8, I summarize and draw conclusions about the general implication of my findings, that the *electoral blind spot* and *partisan lens* are descriptive of the empirical data regarding relationships among information, perception, and vote choice, but that the influence of partisanship is an important additional consideration in the evaluation of these relationships. I

close with a brief discussion of potential implications of these results and recommendations for continued research in this area.

CHAPTER 2: BACKGROUND: INFORMATION AND KNOWLEDGE IN ELECTIONS

2.1 The Value of Political Information

An informed electorate is a fundamental element of a properly functioning democratic system. Information and knowledge allow citizens to translate preferences into interests, identify candidates who will best represent those interests, and hold to account officials who fail to do so. The effectiveness of a democracy is directly related to the degree to which its electorate is informed (Kinder and Palfrey 1993; Highton 2004), both because voters need sufficient information to know how their own preferences align with policy positions (Althaus 2003), and because voters need to be able to distinguish among candidates to determine which of them hold policy positions that are similar to their own. Lacking information, a voter is in an *electoral blind spot*, unable to distinguish one candidate from another, and makes electoral decisions based on criteria that are likely less relevant to the quality of representation they might otherwise expect (Bawn et al 2012).

Democracy may demand an informed electorate, but American voters are generally ill-informed about the details of legislation, policy, or even who their own representatives are; because of the wealth of information one needs to digest or because we simply don't dedicate the time and work needed to become politically informed (Lupia 2016). The lack of effort that typical Americans devote to consuming political information results in a lack of knowledge that hinders their ability to select representatives who share their interests or to hold elected officials accountable for their performance in office (Campbell et al 1980; Converse 1964; Delli-Carpini and Keeter 1996).

Despite the handicap of being uninformed, voters are still able to use political cues to detect important differences between candidates and policy proposals. By making efficient use of available political signals like party, demographic characteristics, and endorsements, poorly informed voters are able to make sense of political events and campaigns despite their inability to recall specific facts (Page and Shapiro 2010; Sniderman, Brody, and Tetlock 1993, Lupia 1994). Failure to remember names or other particular policy positions may be tempered by impressions voters formed when information was first presented to them (Graber 1988). Though they can't describe the details of government actions, they pick up enough information about political matters that they are able to take positions and make voting decisions similar to those they would probably make if they were, in fact, well informed (Popkin 1994; Bartels 1996; Donovan and Bowler 1998; Lupia 2016, Althaus 2001, Skehon 2004). The use of political cues as a substitute for detailed political information is imperfect, though, as voters' perceptions are colored by the source of the information they rely upon, and whether that source frames the information in a particular way (Krosnick and Brannon 1993). As a result, information may be limited to particular issues, facts about only recent events, or strictly partisan evaluations (Miller 2013; Jesse 2010).

2.2 Where Do We Get Our Information?

Among the multitude of sources of information and political cues, the most partisan source is certainly the political campaigns themselves. Specifically designed to promote a candidate, campaign organizations have become adept at getting information to the voters, informing them about specific candidate positions, and giving them confidence that they know enough about a candidate to cast their vote (Alvarez and Franklin 1994). Voters consume and recall campaign information produced over the course of an election cycle, altering their

perceptions of the candidate and demonstrating increased knowledge about the relevant issues (Alvarez and Glasgow 1997; Alvarez 1997). In order to cement their message in the minds of voters, campaign activities and advertising often deliver the same message repeatedly, increasing the likelihood that people will recall the information. (Berelson, Lazersfeld, and McPhee 1954). Yet despite the repetition of the message and ads, voters often still forget the specific information they heard, though they will likely later be able to recollect their evaluation of the candidate based on that information, which will then influence their vote choice (Lodge, Stennburgen, and Brau 1995).

Political advertising, especially television advertising, probably has the broadest reach of a campaign's efforts to inform and influence voters. TV ads can be more effective at informing voters than newspapers, TV news programs, or even televised candidate debates (Just, Crigler, and Wallach 1990). Part of the explanation for the effectiveness of TV advertising, particularly negative or attack ads, is its ability to enhance the emotional appeal of the message through the use of music, imagery, or other symbols, often using these to evoke enthusiasm or fear. (Brader 2005; Lang 1991; Brians and Watternberg 1996; Marcus, Neuman, and MacKuen 2000). Political advertising is an effective source of information, as viewers who recall seeing ads tend to have the most accurate assessments of candidate positions and are also more likely to use that information in their electoral decision (Brians and Wattenberg 1996).

News media coverage of candidates can be similarly effective to campaign advertising, but generally without the clear partisan framing (West 1994). Among voters who pay attention to political coverage, news media can be a highly effective source of information, with print media chief among them. Newspaper readers tend to have stronger knowledge of candidates' issue positions than people who prefer television news programs (Price and Zaller 1993; Becker

and Dunwoody 1982; Choi and Becker 1987). Newspapers are more informative than TV news simply because they are able, by the nature of the medium, to cover the candidates in more depth and detail (Robinson and Davis 1990). Regardless of the medium, one of the more important roles that news media plays in developing the information environment is bringing unflattering coverage or evidence of inappropriate behavior by candidates into the public forum, which can play a critical role in politicians' accountability to voters (Chang, Golden, and Hill 2010).

Incumbent candidates for office enjoy an information advantage in that they have usually been the subjects of media coverage over the course of their term(s) in office, and voters are likely more familiar with them and their issue positions. Even when an incumbent is less frequently the subject of media attention, voters remain familiar with them and their positions. When campaign season begins, incumbents' campaigns begin building on that familiarity with additional information designed to appeal to voters (Jacobson and Kousser 2009). On the other hand, voters often are unable to identify or even recognize the names of challengers who are trying to unseat incumbent legislators (Hinckley 1980). More credible challengers, who enjoy more familiarity among voters, inspire stronger efforts (and more spending) by incumbents to influence voters' decisions (Jacobson 1978; Popkin 1994). Generally, though, the information and familiarity advantage of incumbent candidates pays off, as incumbents win reelection on average over 90% of the time ("Reelection Rates" 2018).

2.3 Informed Vote Choice: Proximity Voting and Electoral Accountability

One aspect of voters' increased familiarity with incumbent candidates is an awareness of the incumbent's voting record while in office. This familiarity can be a double-edged sword for incumbent candidates as it may reveal a legislative record that reflects the desires of the constituency or it may demonstrate that the candidate is ideologically out of step with the voters

in their district. Under the concept of *proximity voting*, in the most basic terms, voters will select representatives whom they believe will provide them with more benefits, and their satisfaction with those representatives decreases as politicians demonstrate less support for policies that will confer those benefits. On an ideological spectrum, the policies that will most give a voter the most satisfaction define that voters ideal point, and voters will judge candidates by the distance between the candidates' positions and their own. Candidates will, in turn, tend to gravitate toward a position on the spectrum closer to a majority of voters (Downs 1957; Ansolabehere, Snyder, and Stewart 2001; Canes-Wrone, Brady, and Cogan 2002). As a result, voters tend to select candidates who are ideologically close to their own position. For voters with a strong partisan identification, it can be easier to tell which candidate is closer simply by knowing which political party the candidate represents, as voters tend to consider themselves to be ideologically close to their party (Wright 1978; Abromowitz and Webster 2015). Those voters without a strong partisan identification will examine the positions of the candidates, who may have converged on the moderate center of the spectrum, but will likely still be far enough apart for voters to determine which is closer to their own position (Downs 1957; Jessee 2010).

A congressman's ideological position can have a significant effect on their vote share should they run for re-election, as people are generally aware of their legislators' record, and they will use that knowledge to hold incumbents accountable for the policy positions they took while in office (Erickson 1971; Ansolabehere and Jones 2010). Though constituents generally have less than perfect knowledge of their representatives' ideology, they tend to notice when a legislator votes counter to their desires on issues that they find to be particularly salient (Miller and Stokes 1963). Voters also take note when their representatives demonstrate a pattern of non-centrist voting. As legislators position themselves with the more extreme members of their

party, they will often have a more difficult time winning re-election, and those who do win will find that their vote margins tend to decrease as they move farther away from their constituents (Ansolabehere, Snyder, and Stewart 2001; Canes-Wrone, Brady, and Cogan 2002).

While representatives with voting records that deviate from their constituents' preferences may find themselves defeated by challengers, there are cases where factors other than pure ideological positioning will drive voter preferences (Ansolabehere, Snyder, and Stewart 2001). A candidate's *valence* with the constituency can be an important driver in their ability to earn votes: Characteristics like honesty, integrity, trustworthiness, and leadership are generally valued by everyone, and candidates who demonstrate a lack of these characteristics, whether by personal misconduct or scandal, can find it difficult to be re-elected (Deegan 2007). Shared identity can also be an important influence in vote choice when ideological information is not available (Bassi et al 2011, McDermott 1997). When a challenger is successfully able to communicate to voters their own strengths or social identity as a candidate, and specifically when they are able to present the incumbent as lacking those valence characteristics, they improve their chance of winning the election, often despite an ideological position that is not as close to the district as the incumbent (Jacobson 2009).

2.4 The Electoral Blind Spot

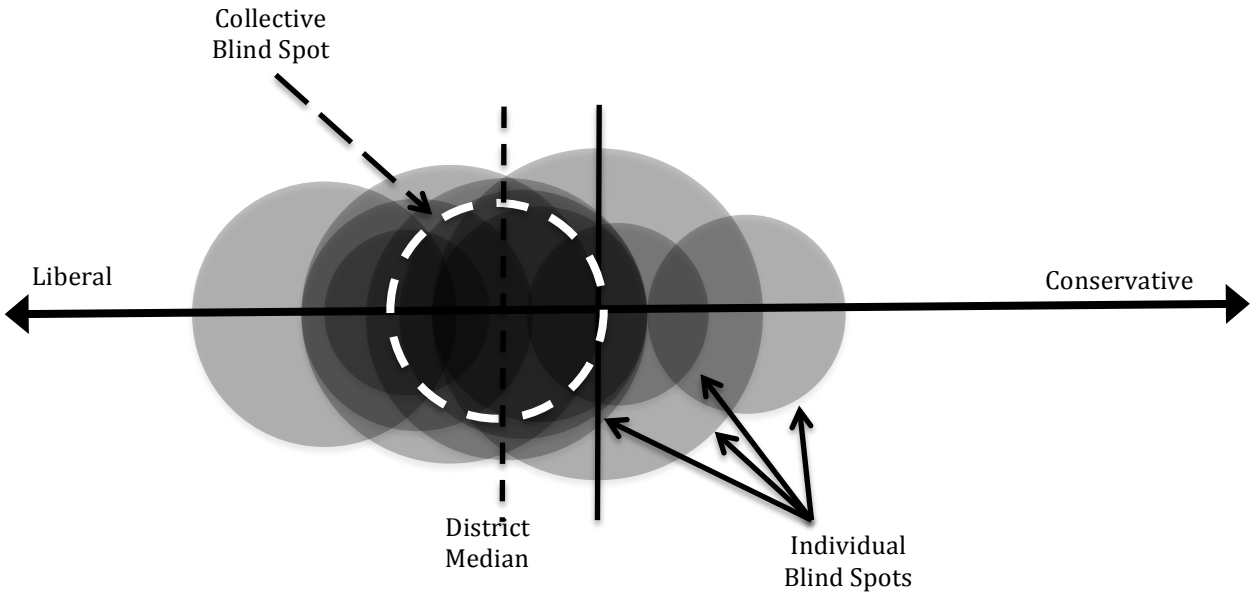
The effect of all of this political information on perception (and misperception) of candidate ideology was described in "A Theory of Political Parties" as an *electoral blind spot* (Bawn et al 2012). The blind spot is specifically defined as "the policy region [within the

ideological spectrum[1]] over which aggregate electorates do not enforce their preferences." The concept presumes that voters generally prefer centrist policies and candidates who would promote those policies, but sufficient numbers of those voters are inattentive, or figuratively blind, to the differences among non-extreme policies and unable to discern one from another. To those voters, all potential policy positions that are sufficiently close to the center as to be indiscernible from one another lie within an ideological blind spot, and these voters would accept any of these policies or choose among candidates supporting these policies "on the basis of something other than policy position" (Bawn et al 2012).

The inability to discern policy differences is a function of voters' knowledge: a person with no political information would be unable to see the differences among any policy positions, and a fully informed voter would choose the policy and candidate closest to their own ideological position, which is assumed to typically be at the origin or center of the spectrum (Bawn et al 2012). The location and size of the electoral blind spot can change as the amount information about candidates and representatives changes, and parties must work to ensure the candidates they nominate for office remain within it, lest a majority of voters recognize their non-centrist policy positions and reject the candidate (Bawn et al 2012).

[1] This spectrum follows the convention that its left side reflects more liberal ideologies, and the right side more conservative, while the midpoint is the ideological, non-partisan center. To "place" an official on the spectrum is to identify their *ideal point*, or the point on the spectrum that corresponds not only to their general ideological leaning (liberal or conservative), but that is an appropriate distance from the center to

Figure 2-1: Visualization of the Collective Electoral Blind Spot for a Congressional District



Note: In this diagram, each shaded circle represents the electoral blind spot of an individual voter. The white dashed circle represents the space over which a majority of the voters' blind spots overlap: where in this hypothetical district a majority are unable to differentiate among policy positions or candidates. This space would therefore be the collective blind spot, and its center should be at the collective [district] median position on the ideological spectrum.

Though Bawn et al identify the electoral blind spot as an aggregate phenomenon, it follows logically that each individual voter has their own blind spot, centered on their own ideal point uniquely sized to reflect the individual's political knowledge. Aggregating these individual blind spots across an electorate at-large, a congressional district, for example, the blind spot would likely not be located exactly at the ideological center, but on the median ideal point of the district, and extend in either direction a distance equal to that which is small enough such that a majority of voters are able to discern differences between candidates' ideology and their own. Figure 2-1 is a visualization of an aggregated district-wide electoral blind spot, depicting a sample congressional district with a distribution of individual blind spots. In this example, most of the voters in the district tend to be somewhat liberal, so the district median ideology is left of

the ideological center. Each voter has their individual blind spot located at their personal ideal point, the size of the spot relative to their personal political knowledge. The area where a majority of individual blind spots overlap forms the collective blind spot for the district. Within this ideological space, a majority of voters will not be able to discern differences between candidates or policies. A collectively well-informed electorate will have a smaller blind spot and the majority of voters will take note of a candidate's non-centrist ideal point.

2.5 The Partisan Lens

Even in an environment with abundant political information, it is unlikely to be interpreted the same by everyone. Information consumers of differing ideologies can have different perceptions of information about candidates, and party loyalty can facilitate alternative interpretations of the same information (Barber and Pope 2017, Epley and Gilovich 2016, Rahn 1993). Viewing candidates and policies through this *partisan lens* can lead voters to resist information or constrain their response to align with their partisan identification, effectively filtering out information that contradicts their partisan viewpoint (Zaller 1992; Goren, et al 2009). Partisanship affects not only how messages are interpreted, but also whether voters retain political information, as party membership correlates with greater political knowledge generally, and more informed partisans are more likely to resist information that conflicts with established party positions (Benz and Stutzer 2004; Zaller 1992).

Regardless of party membership, people often use party labels to make candidate assessments, applying ideological and party labels as proxies for issue positions (Popkin 1994; McKelvey and Ordenshook 1985, Peterson et al 2013). Over the past 40 years, voters have increasingly considered their chosen political party's positions as closer to their own, while they perceive the opposing party and increasingly distant from themselves (Abromowitz and Webster 2015). If voters have knowledge of the party's ideology generally, they can apply a candidate's party label as a cue for policy positions, which allows voters to make the same choices they would make if they were more broadly informed about the candidate's positions on every issue, though the more one relies on party labels as a proxy, the weaker their preference tends to be for their chosen candidate (Lupia 2016; Palfrey and Poole 1987).

The ideological disposition of a voter's social environment can influence how people interpret partisan cues, as information from peers and other social contacts can be more influential on political attitudes than messages from political leadership (Pierce, Redlawsk, and Cohen 2013; Kertzer and Zeitzoff 2016). Support or opposition to a particular candidate by others within a voter's environment can be a powerful social cue that will influence their own assessment of the candidate (Popkin 1994). An electorate that is generally more conservative than average, for example, will tend to consider relatively more conservative candidates, with an even greater tendency to do so among more liberal voters (Ansolabehere, Snyder, and Stewart 2001). If a congressional district is more inclined to one side of the political spectrum or the other, politicians and campaigns hoping to inform those voters will be more effective if they present messages tailored to the ideological leanings of the district (Lupia 2016).

If an informed electorate is a fundamental element in an effective democracy, then it is difficult to overstate the value of political information, whether acquired actively through research or incidentally through cues and proxies. With the variety of information sources available to voters and the role of personal and community partisanship in how that information is received, it is important to understand what factors affect actual knowledge and the ability of voters to accurately perceive the ideology of the people who would represent them in office.

CHAPTER 3: MEASURING POLITICAL KNOWLEDGE AND PERCEPTION

To enable my analysis of the relationships between information, partisanship, perception, and electoral outcomes, I employ a number of disparate sources of data, including public opinion polling, summaries of media and advertising, campaign finance information, election results, and academically developed measures of ideology. This chapter describes each of these data sources and how they were incorporated into this study.

3.1 Define "Informed"

Assessing voters' political knowledge usually includes measurements of an individual's ability to correctly recall factual information. Survey respondents are often asked to name various government officials, to identify whether they are familiar with the details of legislation and policy, to identify the major political parties and their general ideological leanings, or to assess how often they consume particular media sources (Benz and Stutzer 2004; Erickson 1971). For the purposes of this study, I define an informed voter as one who can accurately place their congressional candidates' ideal points on a one-dimensional left-right ideological spectrum (Palfrey and Poole 1987; Highton 2004; Jacobson 1976, Aldrich and McKelvey, 1977). This particular convention is appropriate for this study as it permits evaluation of how information and knowledge interact with proximity voting patterns. As it pertains to broader democratic principles, knowledge of candidate ideology is necessary if voters are to be able select candidates who will best reflect a their policy preferences in office (Highton 2004; Ansolabehere and Jones 2010), and, unlike factual questions about candidates or policies, perceptions of candidate ideology will capture voters' general candidate assessments that are

often recalled by voters despite having forgotten factual details (Lodge, Steenburgen, and Brau 1995).

Employing a voter's knowledge of candidates' ideological placement as my definition of an informed voter, I consider the state of being informed as a continuous measure centered on a point at which the voter knows exactly where a candidate's ideal point is on the ideological spectrum: correct *perception*. A respondent's degree of *misperception* is the distance between where that person thinks the candidate's ideal point is located and actual location[2] of the candidate's ideal point on the spectrum. The voter's misperception increases as the distance increases between the candidate's actual position and the voter's perception of that position. The voter's misperception may be either to consider the candidate more centrist than he or she actually is, or in the opposite direction, to perceive the candidate further from the ideological center than he or she actually is.

To develop a model of informational influences on knowledge and perception, given voters' beliefs and candidates' actual ideal points, I examine respondents' individual demographic characteristics to determine which predict whether a voter is likely to more correctly perceive candidate ideology. I then apply those predictive characteristics to a model of district-wide collective knowledge and misperception, on the consideration that predictors of individual political knowledge may also predict collective knowledge. For example, I find that individual respondents' education level correlates to a more accurate perception of candidate ideology, so I consider whether a district with an overall higher education level is, collectively, better informed. In addition to voter characteristics, I also examine a variety of sources of

[2] A respondent's perception of a candidate's ideal point is determined by their response to the Cooperative Congressional Election Study (Ansolabehere and Schaffner 2013) when asked to identify a candidate's ideology. A candidate's actual ideal point is calculated based on as ideology score as calculated by Adam Bonica (2016) for the Database on Ideology, Money in Politics, and Elections. Both of these datasets are discussed in more detail herein.

information recognized in previous research that serve as short cuts, cues, and proxies voters might use to learn what they need to know in order to make a rational vote decision.[3]

3.2 Measuring Voters' Perceptions

The foundation of this model is a measure of the ability of voters to accurately perceive their candidates' ideal point on the one-dimensional ideological spectrum. The first input to this measure is each voter's perception of their candidates for Congress. It is also valuable to know what voters' perception of their own ideology is. For these data, I used the Cooperative Congressional Election Studies (CCES) for the congressional election years 2006, 2008, 2010, 2012, and 2014[4] (Ansolabehere 2010, 2011, 2012, 2013; Ansolabehere and Schaffner 2015). CCES respondents were asked to place themselves and their district's two major US House of Representatives and Senate candidates on the ideological spectrum. For the 2006 and 2008 studies, respondents placed themselves and candidates on a thermometer-style scale from 0 (very liberal) to 100 (very conservative) where "the most centrist American is exactly at the middle (50)" (Ansolabehere 2010, 2011). Respondents in 2010, 2012, and 2014 were asked to select from a list of seven ideological labels ranging from "Very Liberal" to "Middle of the Road" to "Very Conservative" (Ansolabehere 2012, 2013, Ansolabehere and Schaffner 2015).

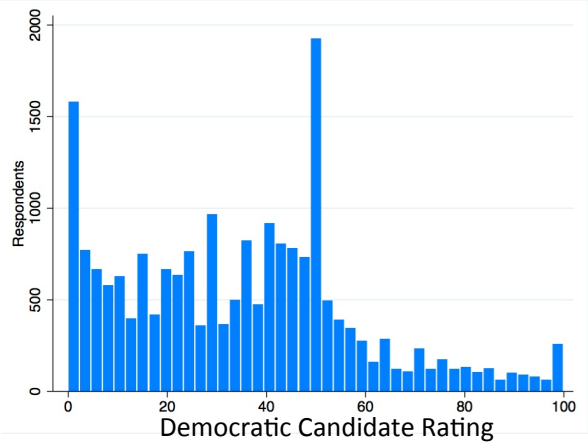
[3] Information sources to be considered in the model of district knowledge and perception include incumbency, general district partisanship, campaign efforts, political advertising, and media coverage to assess their effects on the information environment by way of making voters generally more likely to correctly perceive candidate ideology.

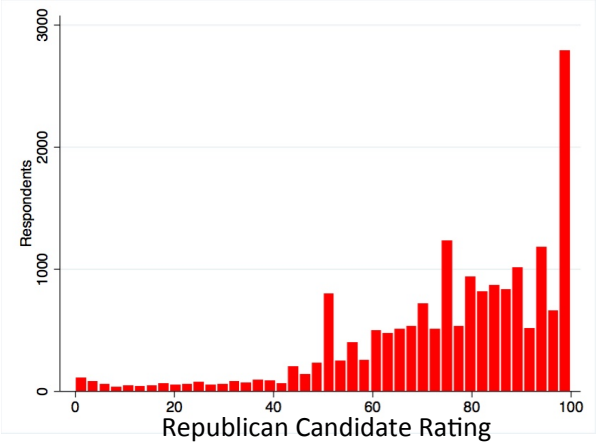
[4] The CCES is a national stratified sample survey administered by YouGov/Polimetrix to 30-55,000 people. The survey asks about general political attitudes, various demographic factors, assessment of roll call voting choices, and political information. There are nearly equal numbers of Republican and Democratic candidates represented in the dataset for the five election cycles studied (an average of 684 and 691, respectively), and individual respondents to the CCES study were, on average 39.9% Republican and 45.6% Democratic.

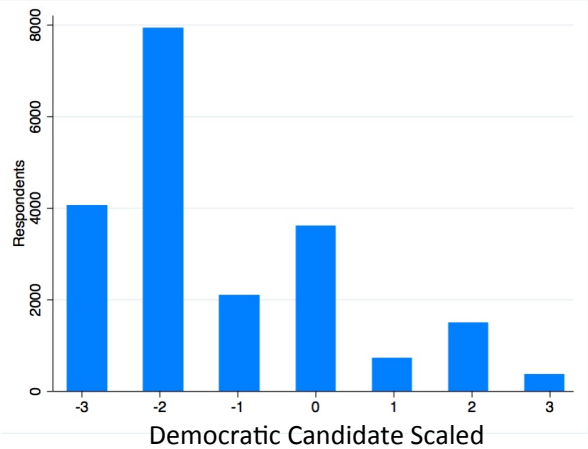
In order to compare responses across all five surveys, I recoded all responses to a 7-point scale. For the data from 2010-2014, I simply converted the seven labels to a discrete scale in which -3 is *Very Liberal*, 0 is *Middle* of the road, and 3 corresponds to *Very Conservative*. To recode the earlier 100-point scale to a 7-point scale, I first calculated the mean and standard deviation of scale placements for Democratic and Republican candidates, separately. I assigned labels of *Very Liberal* to ratings that were more than one standard deviation lower (more liberal) than the mean Democrat. Ratings within one standard deviation of the mean Democrat are *Liberal*, and ratings between 1 and 1.5 standard deviations higher (less liberal) than the mean Democrat are *Somewhat Liberal*. I used the same convention to assign the three levels of conservatism to candidates with higher scores. Those candidates who were more than 1.5 standard deviations less conservative than the mean Republican and more than 1.5 standard deviations less liberal than the mean Democrat were assigned the *Middle of the Road* label. I used the same processes to recode respondents' perception of their own ideology onto a 7-point scale. Figure 3-1 shows the distribution of respondents' perception of candidate ideologies and of their self-identified ideologies, both on a 0-100 scale and recoded to a 7-point scale. The CCES also provided each respondent's demographic and other personal data[5], which I used to determine individual predictors of voter knowledge.

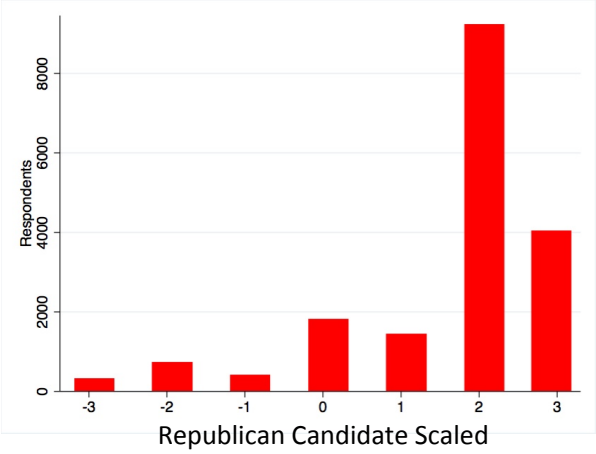
[5] These other data include self reported voter registration status, age, gender, employment status, race/ethnicity, partisan identification, education, church attendance, ideological identification, interest in political news, retrospective assessment of the national economy, approval of presidential job performance, family income, types of political activity, and whether they had been contacted by a political campaign.

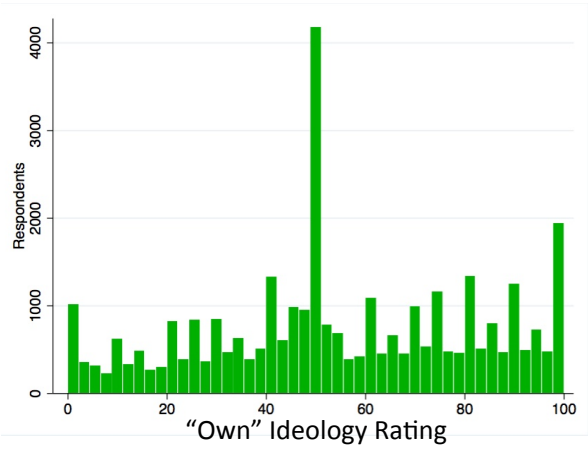
Figure 3-1: Scaling of Respondent Perceptions of Candidate and Own Ideology from 100-point scale to 7-point scale

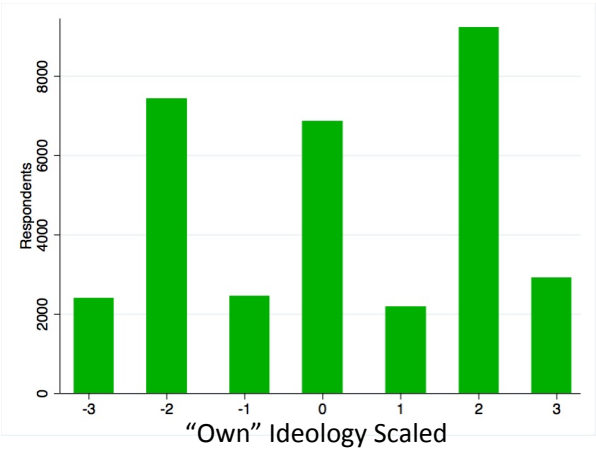












3.3 Measuring Candidates' Positions

To measure a voter's ability to correctly perceive a candidate's position on the ideological spectrum, I identify a "true" position to compare to the voter's perceived position of that candidate. The ability to determine elected officials' ideal points has been well established by Poole and Rosenthal's DW-NOMINATE scoring system[6] (2007), but NOMINATE scores are insufficient for this analysis because they are only available for candidates who have a legislative voting record. In almost every congressional campaign, at least one of the major party candidates lacks a voting history, and therefore lacks a NOMINATE score. In order to evaluate both candidates in a given election, a measure of candidate ideology is needed that includes candidates who do not already have a legislative voting record. Recent studies by Nyhan and Montgomery (2015), Hall (2015), and Thomsen (2014) have been able to compare ideal points of candidates without NOMINATE scores using measures of ideology from the Database on Ideology, Money in Politics, and Elections (DIME), which uses campaign finance data instead of voting history to determine ideological relationships among candidates and donors. On the assumption that people and organizations who contribute to political campaigns will give to candidates who are, on average, ideologically proximate to their own ideal points, Bonica (2014; 2017) developed a method to calculate ideal points for both incumbents and challengers.

Bonica's method calculates ideology scores for all candidates based on campaign donations, but it overcomes the difficulty of differentiating among members of the same political party by incorporating DW-NOMINATE scores, when available, into the calculations (Tausanovich and Warshaw 2017; Bonica 2017). This approach produces DW-DIME scores that

[6] The DW-NOMINATE scoring system uses legislators' roll-call votes to identify those officials who more frequently vote the same way on a given bill and are therefore ideologically similar. Poole and Rosenthal apply this process to thousands of votes across all Congresses to produce a scale of ideology, in which each legislator is assigned a NOMINATE score, with more negative values for more liberal officials and more positive for the more conservative.

are reliable predictors of voting patterns for candidates who subsequently establish a voting record and should be equally effective ideal point estimates for losing candidates without a legislative record. DW-DIME values follow the convention that liberals have negative scores, centrists approach zero, conservatives are positive, and the absolute value of the score is the relative distance from the national median[7].

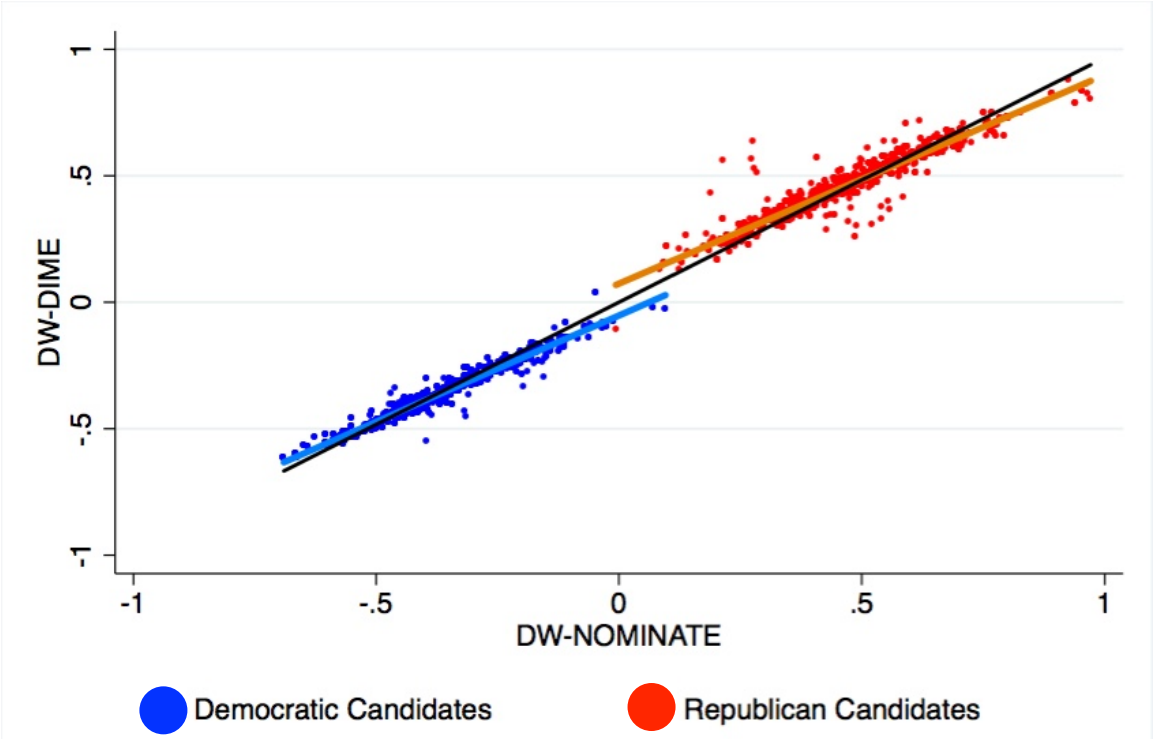
A comparison of DW-DIME to the DW-NOMINATE scores of the same candidates shows a correlation of more than 0.99 between the two measures across the 2006-2014 House and Senate elections. Within each party, the correlation is also very high (0.96-0.98) (Bonica 2016; Carroll et al 2015). If one assumes DW-NOMINATE is a definitive measure, then DW-DIME is a very good proxy that enables a reasonably accurate comparison of the ideologies of both winning and losing candidates[8]. Figure 3-2 depicts the relationship between DW-NOMINATE scores and DW-DIME scores among officials who have scores on both scales.

To facilitate comparison of candidate "true" ideology with voters' perception of candidate ideology, I converted DW-DIME values into the seven-point scale that aligns with the responses to the CCES survey. For each candidate, regardless of party, a negative (liberal) DW-DIME value was compared to the mean DW-DIME value among all Democrats in the same election cycle, and a positive (conservative) DW-DIME value was compared to the mean among

[7] Bonica's method "measures the ideology of candidates and contributors using campaign finance data. Combined with a data set of over 100 million contribution records from state and federal elections, the method estimates ideal points for an expansive range of political actors. The common pool of contributors who give across institutions and levels of politics makes it possible to recover a unified set of ideological measures for members of Congress… Since candidates fundraise regardless of incumbency status, the method estimates ideal points for both incumbents and non-incumbents." By mapping these results onto DW- NOMINATE scores and using the relationship to calculate DW-DIME scores for non-incumbents, Bonica can determine scores for candidates with or without a voting record that accurately differentiate among candidates within the same party.

[8] The DIME database includes DW-DIME values for approximately half (890 of 1908) challengers for House and Senate elections from 2006-2014.

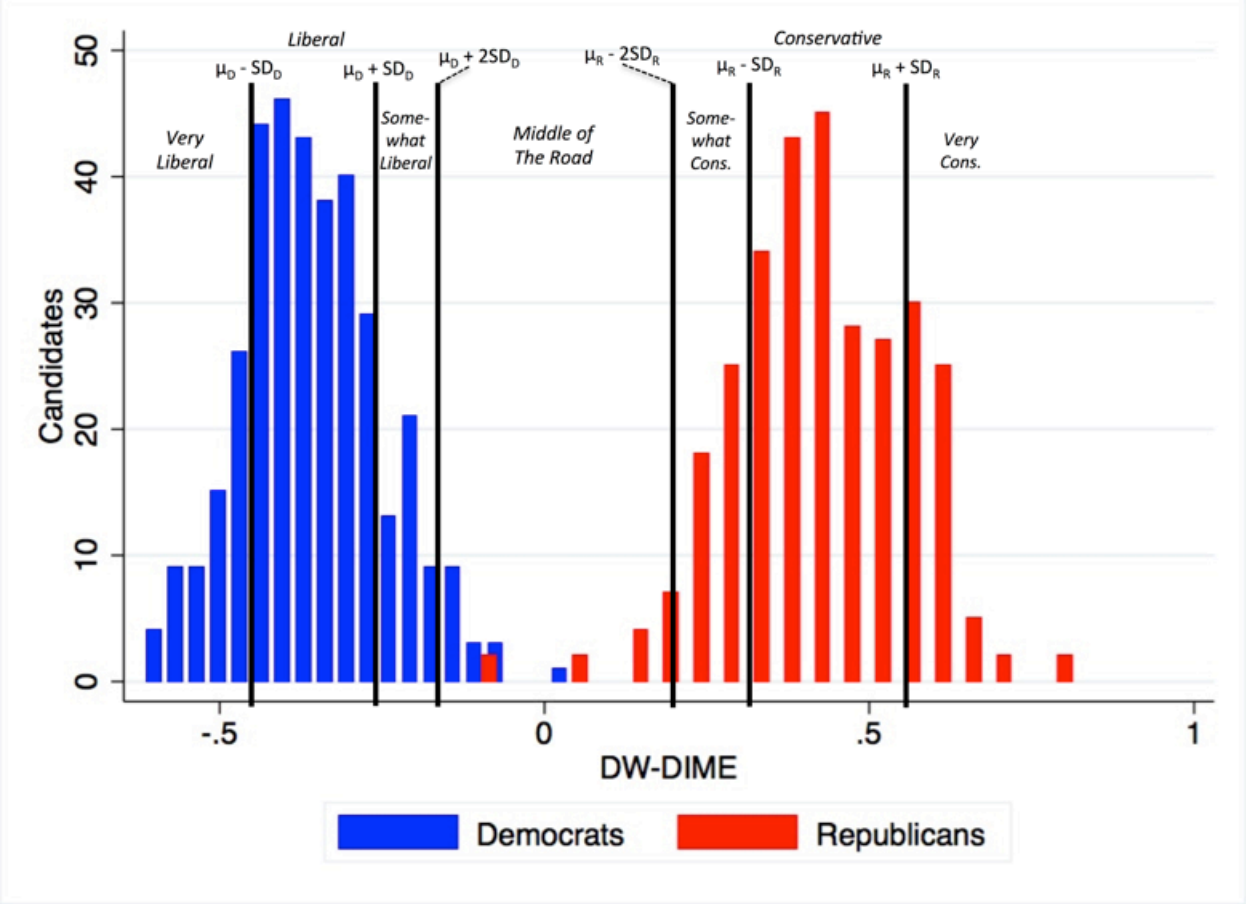
Figure 3-2: Relationship between DW-NOMINATE and DW-DIME Ideology Measures



Note: Data are for US House candidates in the 2010 and 2012 elections.
Source: Database on Ideology, Money in Politics, and Elections (Bonica 2013); Voteview (Poole and Rosenthal 2018).

Republicans. A candidate whose DW-DIME value fell more than one standard deviation to the left of the mean Democrat was coded as *very liberal*. A *liberal* candidate has a DW-DIME value within one standard deviation of the mean Democrat. A *somewhat liberal* candidate was one who fell between 1 and 2 standard deviations to the right of the mean Democrat. *Middle of the Road* is the candidate who falls more than 2 standard deviations to the right of the mean Democrat and more than 2 standard deviations to the left of the mean Republican. Degrees of conservative labels were assigned in a similar fashion relative to the mean Republican. Figure 3-3 shows a distribution of the DW-DIME values with annotation to indicate the rules used for conversion to the seven-point scale.

Figure 3-3: Distribution of DW-DIME Values With Divisions for Recoding to 7-Point Scale

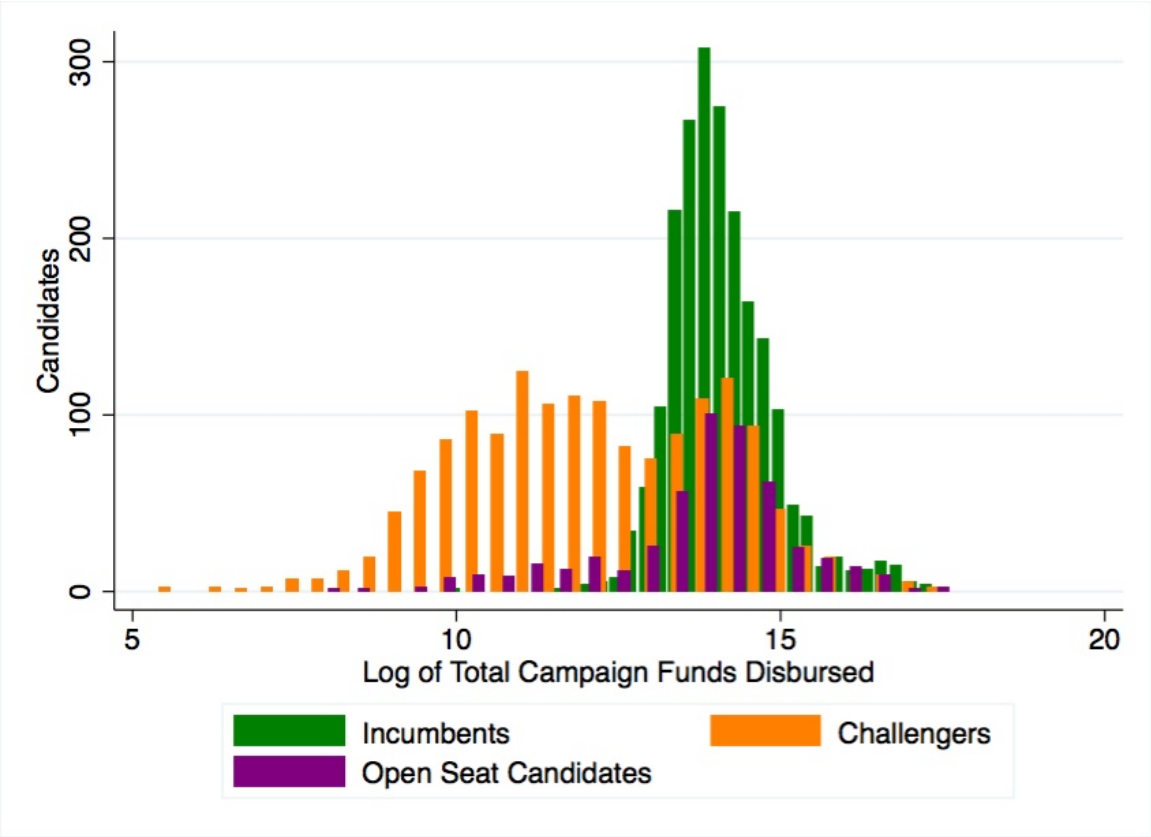


Note: Data are for US House candidates in the 2010 election.
Source: Database on Ideology, Money in Politics, and Elections (Bonica 2013

3.4 Measuring Campaign Spending and Advertising

Electoral campaigns exist fundamentally to influence citizens to vote for a particular candidate. To this end, they generally raise and spend funds, much of it for purchasing campaign advertising. As both campaign efforts and candidate ads are known influences on the ability of voters to recognize candidates and identify their ideological positions, I include measures of these in the model. The amount of money spent by campaigns in a given election should reveal the degree of effort made by the campaign to reach voters, and would logically correlate to the amount of information available to the voters about the candidate, and presumably, their policy

Figure 3-4: Distribution of Log of Campaign Disbursements, by Incumbency Status



Note: Data are for US House candidates in the 2010 and 2012 elections.
Source: Federal Elections Commission (2018)

positions. Similarly, the relative amount of spending between candidates for the same office can reflect each campaign's effort to produce information that they think will give their candidate an advantage. These spending data are readily available from candidates' campaign finance disclosures as summarized by the Federal Election Commission ("Campaign Finance Data" 2017). Figure 3-4 shows the distribution of the logarithms of total campaign funds disbursed by House and Senate candidates for campaigns from 2006-2014. There are some distinct patterns in these data: Almost all incumbents spend more than a large proportion of challengers; and, candidates for open seats tend to follow spending patterns similar to incumbent candidates.

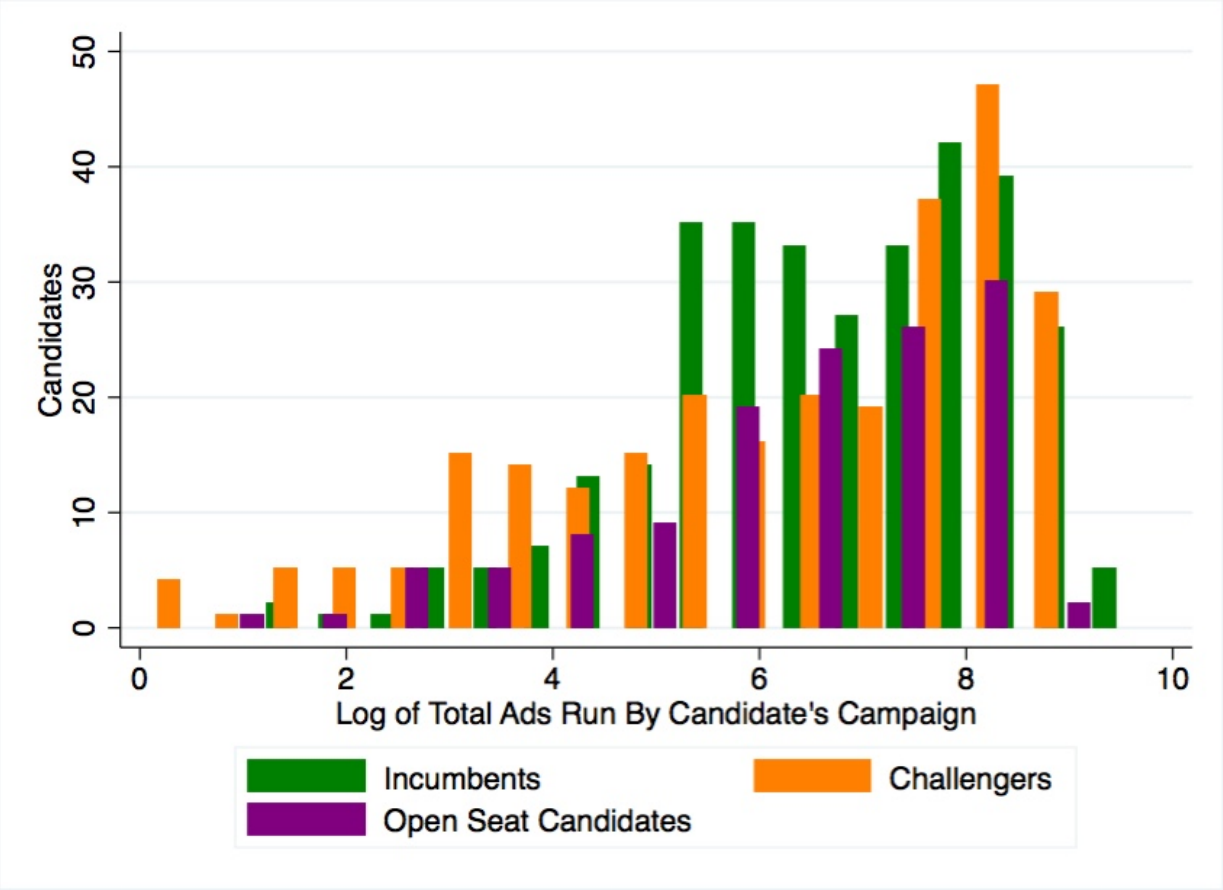
In addition to general campaign spending, the voter knowledge of candidates is also affected by the amount of advertising produced and aired by each campaign. Recognizing that the total number of ads, as well as specific types of campaign ads, negative or attack ads in particular, have been shown to be effective at promoting recall and identification of candidates, I considered various measures of campaign advertising[9] to see whether any particular measure was more effective at increasing voters' knowledge of the candidates. The data from which to develop this measure is available from the Wesleyan Media Project (WMP), which analyzes political advertising archived by the Campaign Media Analysis Group and codes each ad's content and broadcast information (Fowler, Franz, and Rideout, 2010, 2012, 2014). The WMP currently maintains a database of political advertising content and targeting for the 2010, 2012, and 2014 election cycles. Figure 3-5 shows the distribution of the logarithm of the total number of campaign ads run by all candidates who ran ads during the 2010 and 2012 election cycles. According to the WMP, only 717 of the 1,701 major candidates during these cycles ran television advertising. There were no noteworthy differences in the number of ads run by incumbents as compared to challengers or open-seat candidates.

3.5 Measuring Media Coverage

To evaluate the influence of the various news media on voter information about candidates, I used data from the NewsBank database which summarizes media mentions across multiple types of media sources, including newspapers, web-only sources, video, and magazines ("Access World News" 2017). Not all sources are available for all areas of the US, but the most

[9] Measures of data considered in the model include total ads run by the campaign, the number of ads run by a campaign relative to the number run by the opponent, the total number of attack ads from each candidate in the race, and the proportion of campaign ads that were attack ads.

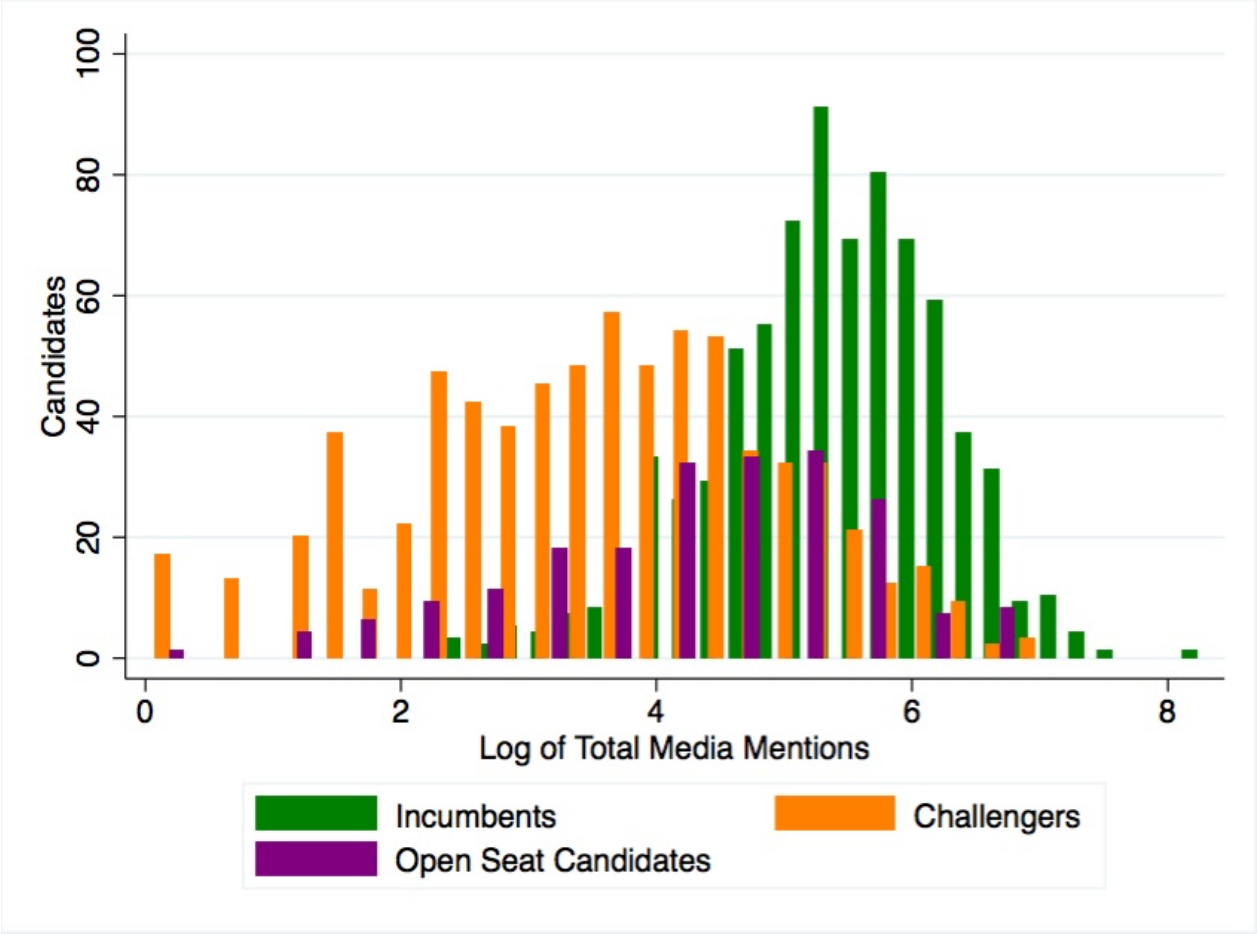
Figure 3-5: Distribution of Log of Total Campaign TV Advertisements, by Incumbency Status



Note: Data are for US House candidates in the 2010 and 2012 elections.
Source: Wesleyan Media Project (2018)

consistently available of these data are those for newspapers and "web-only" sources, which are non-print newspapers, usually local. I counted the number of web-only and newspaper articles mentioning each House candidate by name for the 2010 and 2012 election cycles, using only mentions that occurred during the 12-month period prior to the respective elections. Newspaper sources contained significantly more candidate references than the web-only sources, usually on the order of 10-15 times as many mentions. Incumbent candidates had more media mentions overall than candidates for open seats, who had more than challenger candidates. Figure 3.6 shows the distribution of the logarithm of total (newspaper plus web-only) media mentions for all House candidates in the 2010 and 2012 election cycles.

Figure 3-6: Distribution of the Log of Total Candidate Media Mentions, by Incumbency Status



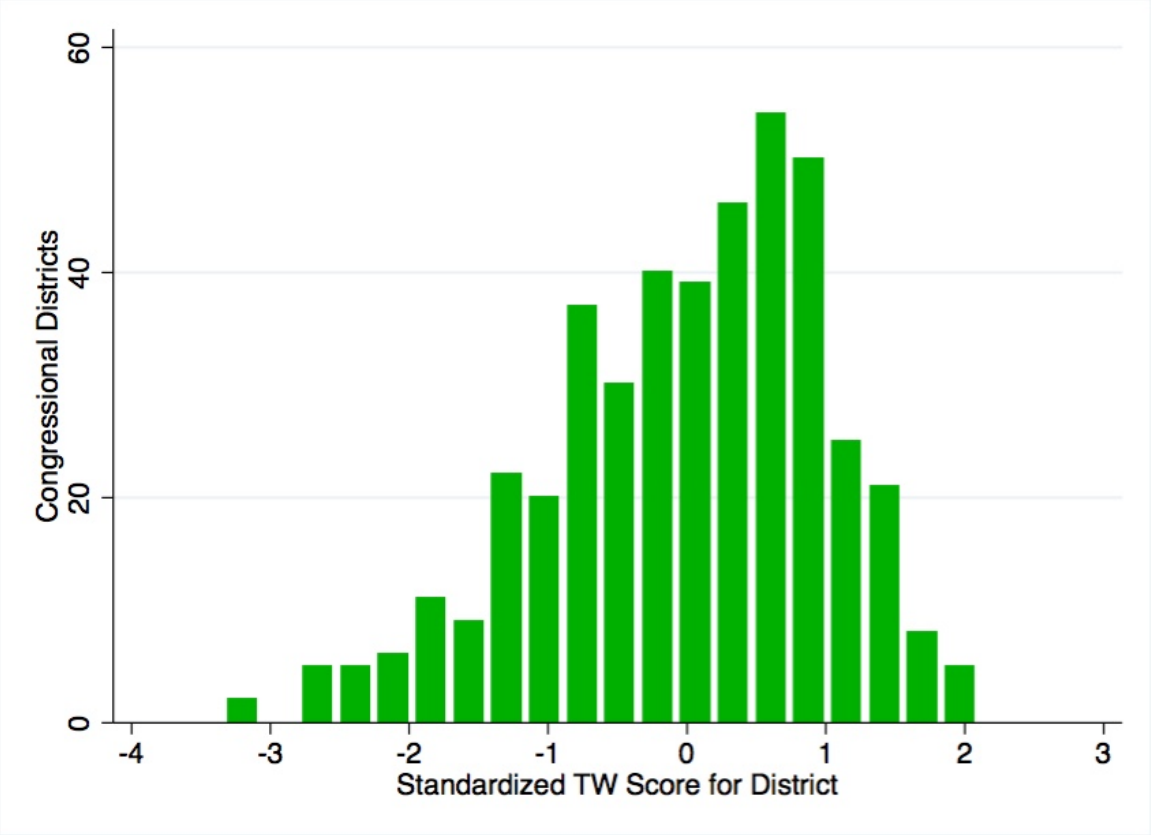
Note: Data are for US House candidates in the 2010 and 2012 elections.
Source: Newsbank, Inc. (2018)

3.6 Measuring Community Ideology

Partisan cues in one's social environment can affect perceptions of political parties and candidates. To measure the impact of partisanship within the constituency, I use a measure of the mean ideological positioning of the district as a whole. Tausanovitch and Warshaw's (2013) method for estimating the mean ideology of various constituencies provides such a measure by estimating the policy preferences of respondents to seven large-scale national surveys using an item-response theory (IRT) model to pool the several datasets. This approach enabled them to

develop a continuous measure of the policy preferences of 275,000 citizens in all 50 states. They assign a value (hereafter referred to as "TW score") to each congressional district identifying the mean ideological ideal point for constituents in the district. These TW scores follow a familiar convention that liberals have negative scores, centrists approach zero, conservatives are positive, and the absolute value of the score is the relative distance from the national median. The results indicate that the median district in the US is slightly conservative (TW score of 0.17), but districts that tend to be more liberal are skewed toward being more extreme than conservative districts (See Figure 3.7). To allow for a clearer comparison of the effects of constituent ideology on voter knowledge, I standardized the TW Score of each district to a measure of the number of standard deviations to the left or right of the mean TW Score.

Figure 3-7: Standardized TW Ideology Score for Congressional Districts



Note: Data are for US Congressional Districts for the 112th Congress.
Source: Tausanovitch and Warshaw 2013

Together, these data on voter, candidate, and constituent ideology, campaign finance, advertising, and media mentions combine with elections data to facilitate the subsequent analysis of relationships between information, perception, partisanship, and electoral outcomes. The study proceeds first with an evaluation of the various possible measures in a test case made up of just 2010 and 2012 elections data to determine which variables will be most appropriate for use in the full analysis.

CHAPTER 4: A MODEL OF VOTER MISPERCEPTION

To efficiently test possible formulations of a model of voter misperception, I first restrict analysis to two electoral cycles for the US House: 2010 and 2012. For these cycles I examine a wide variety of candidate measures to determine which are feasible for later inclusion in a more expansive model that includes more election cycles and Senate candidates. Evaluation of the full model begins in Chapter 5.

4.1 Measuring Misperception

The critical measures for this study are voters' perceptions of their candidates' ideology, the candidates' actual ideology, and the voters' perceptions of their own ideology. To analyze the relationship between the first two of these measures, I develop a model of the factors that predict correct perception. My measure of *misperception* indicates whether voters believed candidates to be more or less moderate than reality. Approximately 74% of CCES respondents during the 2010 and 2012 surveys attempted to correctly place at least one of their two congressional candidates on the ideological spectrum. For each of these respondent-candidate pairs, I calculate a level of *misperception* using the formula:

$$m_{cv} = \begin{cases} I_c - P_{cv}\,, for\ Democratic\ Candidates \\ P_{cv} - I_c\,, for\ Republican\ Candidates \end{cases}$$

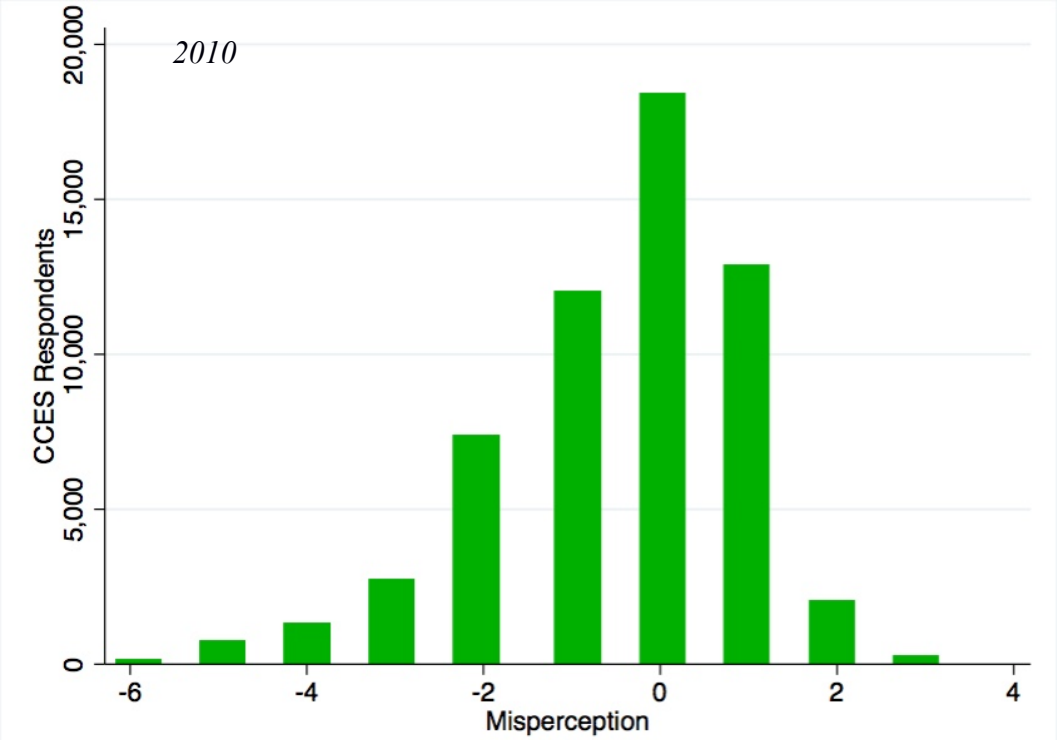
Where: m_{cv} is the misperception of candidate *c* by voter *v*,
I_c is the value of the ideal point of the candidate
P_{cv} is voter *v*'s perception of candidate *c*'s ideal point

In this formulation, the value assigned to *misperception* is zero if the voter correctly perceives the candidate's ideology. Regardless of liberal or conservative ideology, if the voter thinks the

candidate is further from the ideological center than they actually are, the value of misperception is positive. If the voter thinks the candidate is more centrist than they actually are, then the value assigned to misperception is negative, which is the case for the majority of respondent-candidate pairs. Previous research has established that, generally speaking, candidates are perceived to be more centrist than they really are (Ansolabehere and Jones 2010). The calculated values of *misperception* for the 2010 and 2012 US House election cycles demonstrate the same phenomenon. From the 2010 and 2012 CCES surveys, the mean values of m_{cv} were, respectively, -0.46 and -0.70. Figure 4-1 shows the distribution of CCES respondents' individual *misperception* scores for the 2010 and 2012 election cycles. The greater the absolute value of m_{cv}, the greater is the degree of misperception.

It is also important to determine how accurately the constituents of a congressional district collectively perceive their candidates for office. To do this, I calculate the mean value of misperception m_{cv} across all voters v in a given congressional district. For the 2010 and 2012 election cycles, the mean values of m_c were, respectively, -0.55 and -0.75. Candidates are generally perceived as more centrist than they actually are, as 84% and 90%, for 2010 and 2012 respectively, have a negative value of m_c. Figure 4-2 shows the distribution of collective *misperception* scores for congressional districts in the 2010 and 2012 election cycles.

Figure 4-1: Distribution of Individual Misperception Values for 2010 and 2012 US House Candidates



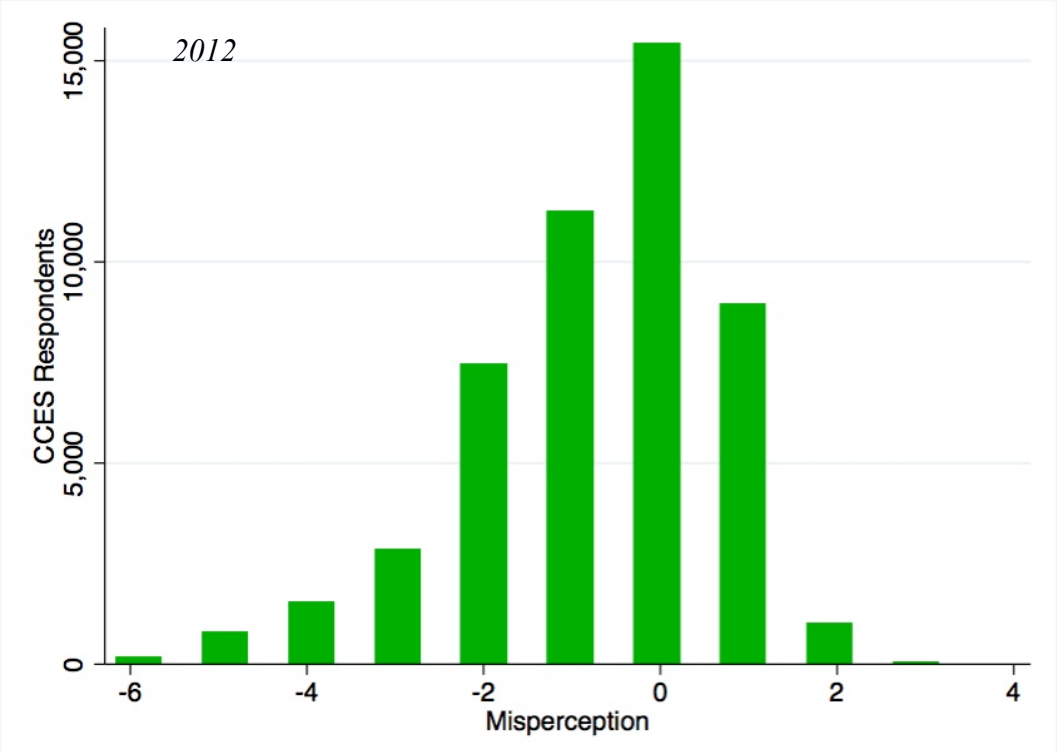
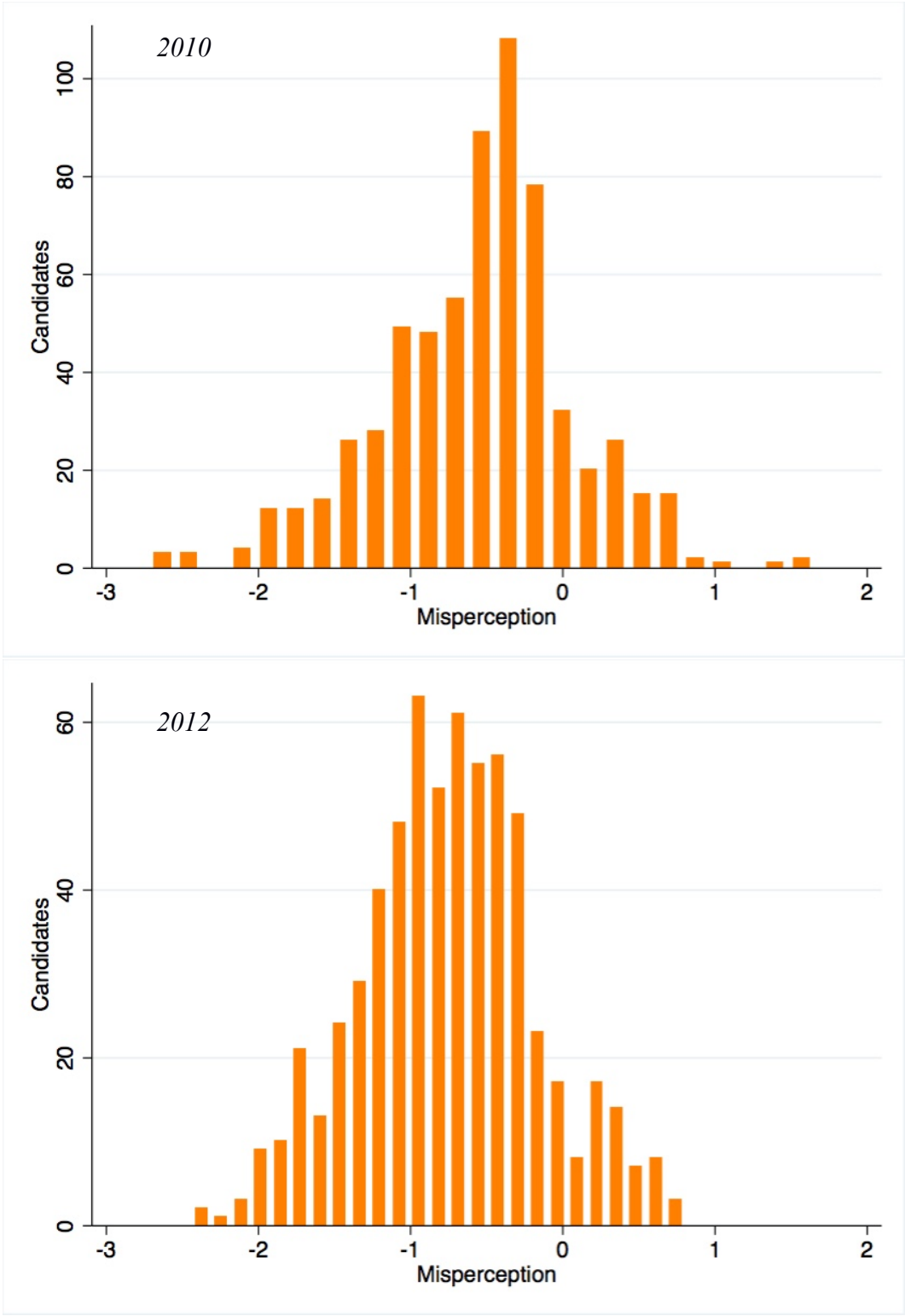


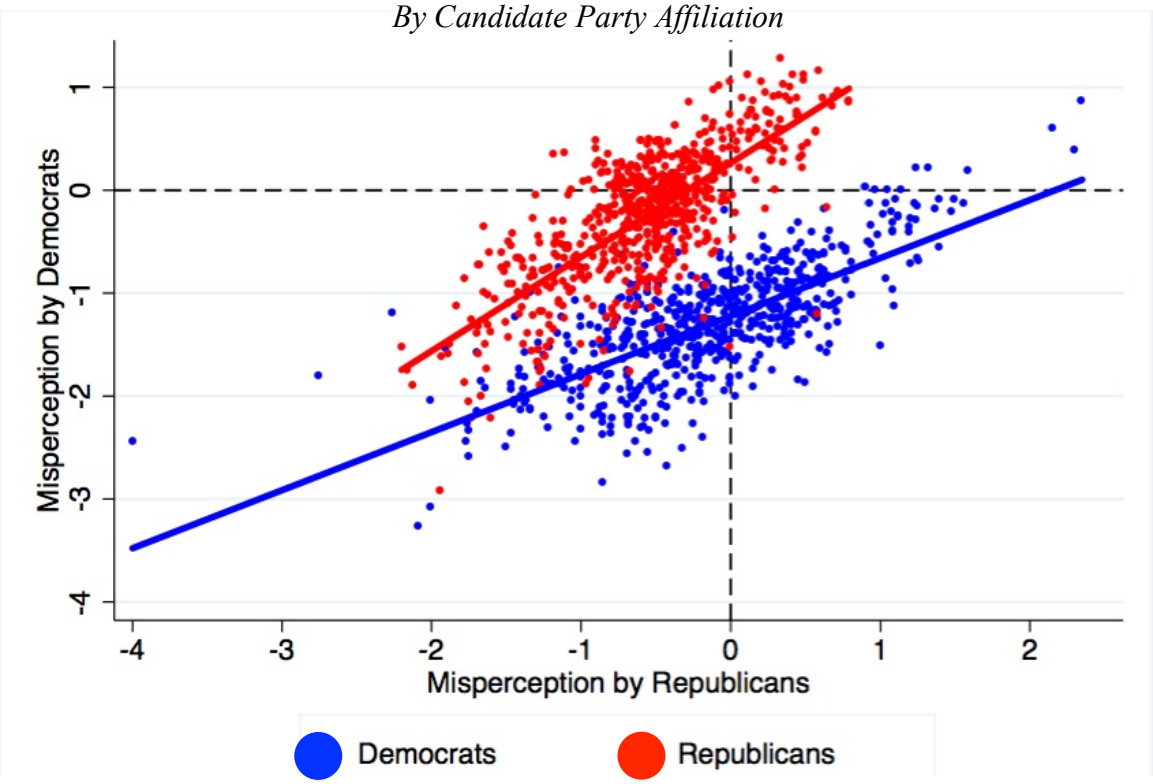
Figure 4-2: Distribution of Congressional District Collective Misperception Values for 2010 and 2012 US House Candidates



4.2 Partisanship as a Driver of Perception

Recalling that partisan identification can significantly affect voters' impressions of political figures, I examination the *misperception* measure controlled for the partisan identification of the respondents, and find that Republican and Democratic respondents unsurprisingly see the same candidates in systematically different lights. Figure 4-3 shows the relationship between the values of misperception of each candidate by self-identified Republican respondents compared to misperception by Democrats. Candidates of the two parties are distinctly separated, showing that Republican respondents tend to see Republican candidates as more moderate than they really are, but perceive Democratic candidates as closer to their actual ideological position. The same pattern is evident among Democratic respondents' perceptions of their co-partisan and opposite-partisan candidates.

Figure 4-3: Comparison of Each Candidate's Perception by Republican Respondents and Perception by Democratic Respondents, By Candidate Party Affiliation



4.3 Individual Misperception

A model predicting individual-level misperception builds on the influence of partisanship and considers basic demographic factors as well as individual characteristics that might reasonably influence or describe how well informed a given voter might be. These characteristics include age, race, gender, voter registration status, employment status, education level, family income, frequency of church attendance, party identification, interest in the news and politics, personal contact by campaigns, and perception about the state of the economy.

A preliminary review of these variables identified that voter registration status, as self-declared by CCES respondents, would not be an effective addition to the model. Approximately 95% of respondents claimed that they were registered to vote. Regardless of whether respondents were reporting their voter status truthfully or not, the lack of variation in this binary variable indicated it would be a poor candidate for inclusion in the model. A trial regression verified this, and I eliminated it. The variable for perception of the state of the economy also proved troublesome for my analysis. Respondent's retrospective impressions of the state of the economy over the previous year were highly correlated (0.63) with the partisan identification of the respondent: Republican respondents in 2010 and 2012 were over four times more likely than Democrats to rate the state of the economy as "worse" or "much worse" than the previous year, possibly because the two survey cycles occurred during the Democratic administration of President Obama, and perceptions of the president are linked to retrospective perceptions of the nation's economy (Fiorina 1978; Vavreck 2009). As a result, this variable was also excluded from the model due to collinearity with party identification.

Table 4-1 includes regression results of the remaining variables on misperception of both Democratic and Republican candidates separately[10]. These results show significant and substantial effects of race, education, interest in news/politics, and party identification. For candidates of both parties, a respondent who is a member of any racial minority (non-white) tends to have increased misperception (believes the candidate is more centrist), and those with higher education levels or more interest in news and politics have less misperception (less likely to believe the candidate is more centrist than actual). The one variable that has a different effect between Republican and Democratic candidates is the partisan identification of the respondent. Democratic-identifying respondents reflect more misperception about Democratic candidates, and the corresponding effect, albeit smaller, appears among Republican respondents and candidates. Independent respondents are less misperceived about Democrats than Republican candidates. These results match expectations based on my preliminary analysis of misperception by party identification. Respondents are more likely to consider co-partisans as centrist and less so for opposite-partisans.

4.4 Collective Misperception

Similar to the approach used to evaluate the factors that contribute to individual misperception, I developed a model of district-level misperception of each candidate using aggregated versions of the variables that were significant and substantial at the individual level, plus candidate- or district-specific variables, including measures of campaign spending, advertising, media mentions, district ideology, candidates' political party affiliation, and

[10] It is important to note here the interpretation of the positive and negative values of the coefficients. The large negative value of the constant term corresponds to the fact that most respondents have a negative misperception score, meaning they perceive candidates to be more moderate than they really are. A positive-valued coefficient implies that its respective variable, when increased in value, tends to decrease the magnitude of *misperception*, or make one more aware of the true degree of a candidate's partisanship.

Table 4-1: Regression Summary of Individual Characteristics Predicting "Misperception" of Candidate Ideology, by Candidate Party (2010 and 2012 US House of Representatives)

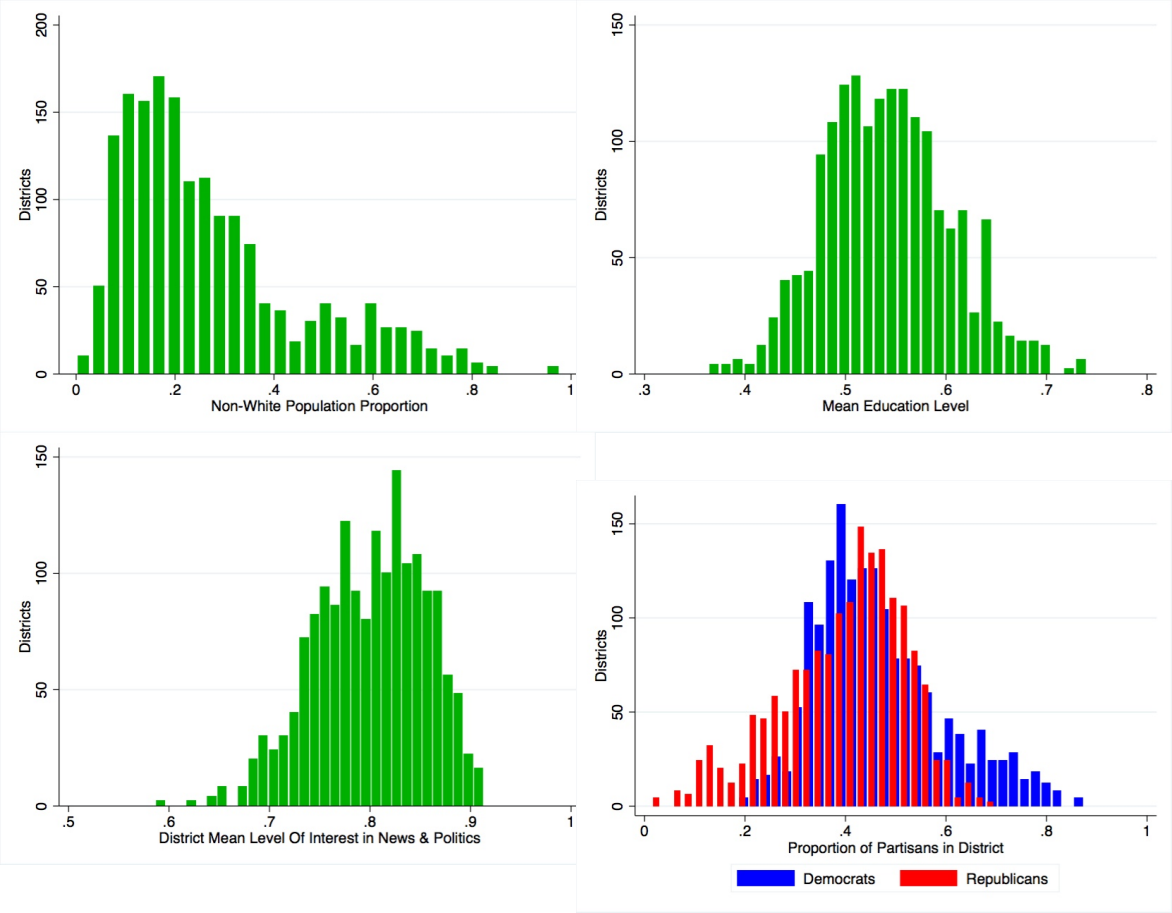
	Democratic Candidates		Republican Candidates	
Age	0.00***	(0.00)	0.00***	(0.00)
Male	0.10***	(0.01)	0.04***	(0.01)
Race (Non-White)	-0.21***	(0.02)	-0.18***	(0.02)
Employed	-0.02	(0.02)	-0.00	(0.01)
Education Level	0.26***	(0.03)	0.38***	(0.02)
Income	0.02***	(0.00)	0.03***	(0.00)
Church Attendance	-0.06***	(0.02)	-0.10***	(0.02)
Interest in the News	0.91***	(0.03)	1.13***	(0.03)
Campaign Contact	-0.08***	(0.03)	-0.09***	(0.03)
Respondent Party ID				
Republican	1.13***	(0.02)	-0.46***	(0.01)
Independent	0.44***	(0.03)	-0.60***	(0.02)
Const	-2.40	(0.04)	-1.61	(0.04)
	R^2= 0.20	n= 37,370	R^2= 0.10	n= 40,537

n : CCES Respondents
Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*

incumbency status. For the collective measures of individual characteristics (race, education, interest in news/politics, and party identification), I use the mean value of the variable across all respondents within a given district. Figure 4-5 shows the distribution of these aggregated variables across all districts for 2010 and 2012.

For the campaign- or candidate-specific variables of spending, advertising, and media, there are different formulations of these variables that may prove important to this analysis: total spending, total advertising, or total media mentions per candidate; relative values per candidate (each candidate's spending/advertising/media mentions relative to their particular opponent); or, specific types of advertising or media mentions. In order to examine whether any or all of these various formulations were appropriate to include in the misperception model, I first explored each for potential collinearity with related measures (e.g., total advertising vs. relative

Figure 4-4: Distribution of By-District Aggregated Respondent Characteristic Variables



Notes: All data are combined from the 2010 and 2012 CCES surveys.

- *Non-White Population Proportion refers to percentage of people per congressional district identifying as other than "white"*
- *An Education Level: 0 is "Did not graduate from high school" and a 1 is "Post-graduate degree"*
- *Interest in News & Politics: 0 is "Hardly at all" and 1 is "Most of the time"*
- *Proportion of Partisans in each congressional district was calculated based on CCES respondents' stated partisan identification*

advertising) as well as with less-obvious pairings (e.g., relative campaign spending vs. incumbency status).

I demonstrated in Chapter 3 that nearly all incumbent and open seat candidates outspent most challengers (See Figure 3-4). Campaign spending relative to a given candidate's opponent

reveals a similar relationship, as nearly all incumbents outspent nearly all challengers, and open seat candidates' spending was more likely comparable to their opponents'. Total spending correlation to incumbency is high (0.59), but relative spending correlation is even higher (0.74), so the model includes the former value but not the latter. There is also an unsurprising correlation (0.60) between campaign spending and advertising, in which campaigns with greater total disbursement tended to run more campaign ads. Total spending and relative advertising show much less correlation (0.19), as do total spending and the proportion ads run by a given campaign that were "attack ads," (0.26). I include relative advertising and attack ad proportion in the preliminary model, but not the measure of total advertising. As one might expect, incumbency and total number of media mentions are somewhat correlated. Nearly all incumbents earn more mentions than nearly all challengers, while open seat candidates generally fall between the two other types of candidates. The relationship between incumbency and relative media mentions is nearly identical, and both relationships have a correlation value of approximately 0.60. The two measures of media mentions (total and relative) are less correlated to one another at 0.43. For the preliminary model, I include both measures of media mentions after a logarithmic transformation.

Table 4-2 includes the regression results of the full *collective misperception* model, in which the aggregated individual-level variables for race and education are statistically insignificant, but "Interest in the News" is significant and substantial. Campaign spending (log), proportion of attack ads, and incumbency status are all significant and substantial in this specification. Each of these factors contributes to a decrease in the degree of collective *misperception* of the candidate's ideology by the district's voters, indicating that candidates with

Table 4-2: Regression Summary of District and Campaign Characteristics Predicting "Misperception" of Candidate Ideology (2010 and 2012 US House of Representatives)

Mean District Minority Population	0.29	(0.18)
Mean District Education Level	0.52	(0.56)
Mean District Interest in News	2.61***	(0.55)
Log of Campaign Spending	0.21***	(0.04)
Relative Number of Ads Run	-0.02	(0.05)
Proportion of Ads as Attack	0.19**	(0.08)
Log of Total Media Mentions	0.01	(0.02)
Relative Media Mentions	-0.14	(0.09)
District Mean Ideology	-0.00	(0.04)
Candidate Party: Republican	0.09*	(0.05)
Incumbency Status: Incumbent	0.17**	(0.07)
Incumbency Status: Open Seat	-0.08	(0.06)
Constant	-5.99***	(0.60)

n : 505 Candidates; $r^2 = 0.25$
Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*

more interested constituents, who spend more, who run more attack ads, and who are incumbents, are less likely to be perceived as more centrist than they really are.

In the collective misperception model above, candidate party is statistically significant, but its regression coefficient indicates that party is not a substantial driver of misperception. Given the noteworthy effects of co-partisanship between candidates and respondents on misperception demonstrated herein (See Figure 4-3), I considered how district-level factors affected *misperception* among respondents when controlling for their partisan identification. Using the same model *collective misperception* model, Table 4-3 shows the regression result when dividing the dataset by respondent partisanship. Comparing the original model with the three alternative models, I find that, despite some modest differences in magnitude and degree of statistical significance, the relationships between the covariates and *misperception* are generally consistent across partisan respondent groups with a few noteworthy exceptions. Race is a

Table 4-3: Regression Analysis Summary of District and Campaign Variables Predicting Misconception, By Respondent Party ID (2010 and 2012 US House of Representatives)

Variable	All Resp	Democrats	Republicans	Independents
Mean District Minority Population	0.29	-0.25	0.70***	0.32
	(0.18)	(0.20)	(0.19)	(0.27)
Mean District Education Level	0.52	1.14*	-0.19	0.27
	(0.56)	(0.62)	(0.59)	(0.83)
Mean District Interest in News	2.61***	2.15***	2.77***	3.06***
	(0.55)	(0.60)	(0.57)	(0.81)
Log of Campaign Spending	0.21***	0.17***	0.26***	0.24***
	(0.04)	(0.04)	(0.04)	(0.05)
Relative Number of Ads Run	-0.02	-0.00	-0.03	-0.03
	(0.05)	(0.05)	(0.05)	(0.07)
Proportion of Ads as Attack	0.19**	0.13	0.19**	0.19*
	(0.08)	(0.08)	(0.08)	(0.11)
Log of Total Media Mentions	0.01	-0.01	0.12	-0.02
	(0.02)	(0.03)	(0.02)	(0.03)
Relative Media Mentions	-0.14	0.11	-0.11	-0.04
	(0.09)	(0.10)	(0.09)	(0.13)
District Mean Ideology	-0.00	-0.08*	-0.04	-0.06
	(0.04)	(0.05)	(0.05)	(0.06)
Candidate Party: Republican	0.09*	0.97***	-0.64***	-0.16**
	(0.05)	(0.05)	(0.05)	(0.07)
Incumbency Status: Incumbent	0.17**	0.11	0.19***	0.20**
	(0.07)	(0.08)	(0.07)	(0.06)
Incumbency Status: Open Seat	-0.09*	-0.11	-0.05	-0.15*
	(0.06)	(0.07)	(0.07)	(0.09)
Constant	-5.99***	-5.66***	-5.84***	-6.73***
	(0.60)	(0.66)	(0.62)	(0.43)
N (candidates)	505	505	505	502
R^2	0.25	0.51	0.44	0.18

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*

significant and substantial factor decreasing misperception among Republican respondents only, while education is only significant and substantial among Democrats. Among all respondents the difference in *misperception* between a Democrat and a Republican candidate is 0.09, which is essentially no effect, but among only Democratic respondents, that difference is tenfold (0.97).

Among Republican respondents, the magnitude is 0.64, but in the opposite direction, and among self-described Independents, the magnitude of effect of candidate party shrinks dramatically (0.16).

To put these results in simpler terms, respondents generally perceive candidates of any party as being more centrist than they really are. Both Democrats and Republicans have a tendency to perceive candidates of their own party as centrist, while being more likely to recognize the non-centrist tendencies of candidates from the other party. Respondents who claim partisan independence are not strongly swayed by party in their evaluation of candidates, and their *misperception* measure is, on average, more a product of their individual interest in news and politics, combined with campaign efforts like spending and attack advertising.

While overall political advertising was significant in neither the general model specification nor the models controlled for partisanship, the proportion of attack ads run by a given campaign was consistently significant (except among Democratic respondents). This indicates that the attack ads measure would be a valuable inclusion in the analysis of the expanded dataset to follow. It is problematic, however, that about half of the candidates in the 2010 and 2012 election cycles lack any data on their advertising. This is a result of the methods used by the Wesleyan Media Project to collect campaign advertising data, which results in no data at all about many campaigns, generally those in smaller media markets.[11] Additionally,

[11] A statement from the Weslayan Media Project regarding their data collection methods: "CMAG gathers ad data by using a market-based tracking system, deploying 'Ad Detectors' in each media market in the U.S. … Each of the 210 markets is either a "discovery" market or a "tracking" market. "Discovery" markets have technology that allows them to compare new sound wave patterns from ads to the existing database to determine whether an ad is one the system has heard before… Markets that do not have this capability can only record instances of ads that are already in the system… [W]e will find on the political side that for example congressional races that are in small markets may not always have advertising in Kantar's dataset even though we know there were ads because the ads ran only in non-discovery markets."

Table 4-4: Regression Analysis Summary of District and Campaign Variables Predicting Misconception, By Respondent Party ID, Excluding Advertising Data (2010 and 2012 US House of Representatives)

Variable	All Resp	Democrats	Republicans	Independents
Mean District Minority	-0.48***	-0.73***	0.05	-0.16
Population	(0.11)	(0.12)	(0.12)	(0.17)
Mean District Education Level	0.49	0.64*	0.11	0.67
	(0.34)	(0.36)	(0.37)	(0.52)
Mean District Interest in News	1.90***	1.58***	1.87***	2.05***
	(0.38)	(0.40)	(0.41)	(0.58)
Log of Campaign Spending	0.21***	0.17***	0.23***	0.18***
	(0.02)	(0.02)	(0.02)	(0.03)
Log of Total Media Mentions	0.02	0.02	0.01	0.01
	(0.02)	(0.02)	(0.02)	(0.02)
Relative Media Mentions	-0.02*	-0.00	-0.02	-0.03
	(0.02)	(0.02)	(0.02)	(0.03)
District Mean Ideology	0.05**	-0.05*	0.03	0.05
	(0.03)	(0.02)	(0.02)	(0.04)
Candidate Party: Republican	0.21***	1.00***	-0.50***	-0.10**
	(0.03)	(0.03)	(0.03)	(0.05)
Incumbency Status: Incumbent	0.04	0.02	0.13***	0.12*
	(0.04)	(0.05)	(0.05)	(0.07)
Incumbency Status: Open Seat	-0.10**	-0.10	-0.07	-0.12
	(0.05)	(0.07)	(0.05)	(0.08)
Constant	-5.31***	-5.08***	-4.97***	-5.35***
	(0.36)	(0.38)	(0.38)	(0.54)
N (candidates)	1186	1186	1186	1176
R^2	0.27	0.54	0.30	0.10

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*

robust advertising data for elections prior to 2010 are not available. The combination of these two factors results in over half of the congressional campaigns in this study being excluded from analysis because of missing data. Table 4-4 repeats the *collective misperception* regression without including advertising data, and the results differ only slightly. The relationship between race and respondent partisanship is reversed (now significant among Democrats and not among Republicans). Aside from that, the significant and substantial factors are largely unchanged.

Given these results, the full-dataset analysis that will follow will include analyses both with and without the attack advertising measure to observe its effect but allow a full consideration of the data, including those campaigns for which I don't have advertising data.

In every specification of the *collective misperception* model analyzed thus far, the measures of media mentions of candidates have been statistically insignificant with a near zero coefficient. Though both total media mentions and relative media mentions are somewhat highly correlated (0.6) with incumbency status, exclusion of media mentions measures from the *misperception* model has no appreciable effect on the results for the effect of incumbency on misperception. It is clear that the frequency with which a given candidate is mentioned in local newspapers has essentially zero bearing on whether or not voters can correctly identify that candidate's ideology. Accordingly these candidate measures will not be included in the final specification of the model.

From the results of regressions and analysis of the preliminary *misperception* models of the 2010 and 2012 House of Representatives elections, the full analysis to follow will use these specifications:

Individual Misperception

Misperception of candidate *c* by voter *v*, $m_{cv} = \alpha + \beta_1$ *(age)* +
β_2 *(race)* +
β_3 *(employment status)* +
β_4 *(education level)* +
β_5 *(family income)* +
β_6 *(frequency of church attendance)* +
β_7 *(Interest in news and politics)* +
β_8 *(contact with campaign)* +
β_9 *(voter party ID)* + ε

Collective Misperception

Misperception of candidate c, $m_c = \alpha + \beta_1$ *(district minority proportion)* +
β_2 *(district mean education level)* +
β_3 *(district mean interest in news and politics)* +
β_4 *(*log*(total campaign disbursements))* +
β_5 *(ratio of number of campaign ads)* +
β_6 *(proportion of attack ads)* +
β_7 *(district mean ideology)* +
β_8 *(candidate party affiliation)* +
β_9 *(incumbency status)* + ε

Having evaluated the candidate measures and developed the structure of the individual and collective misperception models, Chapter 5 proceeds to repeat these analyses with a full dataset, including elections data for all regular congressional elections from 2006 to 2014, both House and Senate.

CHAPTER 5: THE BLINDED VOTER

The principle of *proximity voting* assumes voters make their electoral decisions knowing, or at least thinking they know, their own position and the position of their candidates. When a voter possesses that knowledge, it is likely a result of either personal characteristics that made the voter more likely to be aware of ideology, characteristics of the voter's community that impacted what information was shared, characteristics of a campaign that provided more information generally to the electorate, or some combination of these. The *individual* and *collective misperception* models developed in Chapter 4 allow an analysis of the individual, community, and campaign-specific factors that predict voter misperception in order to demonstrate which of these characteristics actually increase voters' knowledge of candidate ideology. The analysis in this chapter uses an expanded dataset that includes candidate data and CCES respondent data from congressional election cycles from 2006 to 2014 for both the US House of Representatives and Senate. I demonstrate that voters generally perceive candidates to be more moderate than they actually are, and that there are individual and campaign-specific factors that decrease misperception. These two effects are predicted by the *electoral blind spot* concept. I also show that there is a significant effect of partisanship on misperception, as voters are more likely to believe their co-partisan candidates are moderates, which indicates that people are seeing politicians through a *partisan lens*.

5.1 Individual Misperception

In Chapter 4, I developed the *individual misperception* model to analyze the factors that predict voter information and the degree to which voters tend to be misperceived about their candidates' ideology. That version of the model used only 2010 and 2012 US House elections

data to test candidate variables. For the expanded analysis (2006-2014 House and Senate), I make a few changes to the original model: I add a factor variable for the election cycle, I control for candidate party affiliation, and I control for the office sought (House or Senate). The election cycle (year) is included to determine whether there are any differences in misperception over time or between presidential election years and mid-term election cycles. Given the demonstrated effect of candidate party affiliation, I control for that variable as well as whether the candidate being considered is a House or Senate candidate. Senate candidates are often more experienced politicians, many of whom have already held elected office as local or state officials or even Congressmen. It is reasonable to expect that voters' perceptions of them may follow different patterns than the often lesser-known House candidates. As noted in Chapter 4, advertising measures, specifically regarding attack advertising, can be significant, but data are unavailable for many races, so there will be two specifications of this model: one each with and without advertising data included. Finally, CCES respondents were not asked about campaign contact for the 2008 election cycle. This variable was neither significant nor substantial for the cases in which it was used in developing the model, so in favor of fully evaluating possible variations over time, it was excluded from this analysis.

Thus, the *individual misperception* model will now be:

Individual Misperception:

Misperception of candidate c by voter v, $m_{cv} = \alpha + \beta_1$ *(age)* +
β_2 *(race)* +
β_3 *(employment status)* +
β_4 *(education level)* +
β_5 *(family income)* +
β_6 *(frequency of church attendance)* +
β_7 *(Interest in news and politics)* +
β_8 *(voter party ID)*
β_{9i} *(cycle$_i$)* + ε

Table 5-1 shows the results of regression on m_{cv} for House and Senate, Democratic and Republican candidates separately. Much like the preliminary model (See Chapter 4), there is a significant and substantial effect on *misperception* of race, education, interest in news and politics, respondent party identification, and to a lesser degree, frequency of church attendance. Race (specifically, being non-White) and frequency of church attendance have the effect of increasing misperception, while education and interest in the news tend to decrease misperception. Over the different election cycles, there were interesting variations in 2008 and 2010 (versus the regression's baseline 2006 values). In 2008, Democratic candidates tended to be perceived more accurately, while there was no significant effect on Republican candidates. In 2010, all candidates were generally more accurately perceived except for Republican Senate candidates, who were more misperceived. The 2012 and 2014 cycles followed similar misperception patterns as 2006.

There is very little difference in the effect of the various measures between House and Senate candidates. Where there are systematic differences across control variables, it is between Democratic and Republican candidates. For example, the informative effects (decreasing misperception) of education level and of interest in the news are noticeably higher among Republican candidates than Democrats. Among Democratic-identifying respondents, voters tend to have higher misperception of Democratic candidates, while they are much more likely to recognize Republican candidates' non-centrist ideologies. Among Republican respondents, the effect is reversed, though in this case, even Republican candidates are more accurately perceived than they are by independent (non-partisan) respondents.

Table 5-1: Regression Analysis Summary of Individual Variables Predicting Misconception, By Candidate Party and Office
(US House of Representatives and Senate, 2006-2014)

Variable	House Candidates		Senate Candidates	
	Democratic	Republican	Democratic	Republican
Age	0.00***	0.00***	0.00***	0.00***
	(0.00)	(0.00)	(0.00)	(0.00)
Race	-0.25***	-0.21***	-0.15***	-0.21***
	(0.01)	(0.12)	(0.01)	(0.01)
Employment Status	-0.02*	0.00	-0.01	-0.02
	(0.01)	(0.01)	(0.01)	(0.01)
Education Level	0.19***	0.29***	0.12***	0.31***
	(0.02)	(0.02)	(0.01)	(0.02)
Family Income	0.02***	0.03***	0.02***	0.03***
	(0.00)	(0.00)	(0.00)	(0.00)
Frequency of Church Attendance	-0.10***	-0.14***	0.00	-0.17***
	(0.01)	(0.01)	(0.01)	(0.01)
Interest in News and Politics	0.88***	1.10***	0.84***	1.01***
	(0.02)	(0.02)	(0.02)	(0.02)
Voter Party ID: Democrat	-0.33***	0.57***	-0.42***	0.66***
	(0.02)	(0.02)	(0.02)	(0.02)
Voter Party ID: Republican	0.70***	0.16***	0.79***	0.12***
	(0.02)	(0.02)	(0.02)	(0.02)
Election Cycle: 2008	0.42***	0.03	0.25***	-0.03
	(0.03)	(0.03)	(0.02)	(0.03)
Election Cycle: 2010	0.13***	0.11***	0.13***	-0.17***
	(0.02)	(0.02)	(0.02)	(0.02)
Election Cycle: 2012	-0.07***	0.00	-0.04*	-0.17***
	(0.02)	(0.02)	(0.02)	(0.02)
Election Cycle: 2014	-0.09***	-0.07***	0.11***	-0.04*
	(0.02)	(0.02)	(0.02)	(0.02)
Constant	-2.03***	-2.24***	-1.65***	-2.02***
	(0.04)	(0.03)	(0.03)	(0.04)
N (Respondents)	82,689	82,548	81,918	76,665
R^2	0.18	0.10	0.21	0.10

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*

5.2 Collective Misperception

The individual misperception model permits analysis of the factors that affect the knowledge of individual voters. To determine whether those factors also determine the general district-wide degree of knowledge about a particular congressional candidate, as well as to introduce community- and campaign-specific variables into the analysis, I aggregate the individual-level data across each congressional district (for House candidates) and state (for Senate candidates). The *collective misperception* model uses each constituency's mean value of the variables that were significant and substantial in the *individual misperception* model, then adds the constituency's general ideological leaning, campaign spending, advertising, candidate party affiliation, and candidate incumbency status. Based on the regression results from the *individual misperception* model, I add to the *collective misperception* model developed in Chapter 4 the constituency's aggregate variable for frequency of church attendance. As earlier, I also add a factor variable for the year of the election cycle and I control for the party identification of respondents:

Collective Misperception

Misperception of candidate c, $m_c = \alpha + \beta_1$ *(constituency minority proportion)* +
β_2 *(constituency mean education level)* +
β_3 *(constituency mean interest in news/politics)* +
β_4 *(frequency of church attendance)* +
β_5 (log*(total campaign disbursements))* +
β_6 *(ratio of number of campaign ads)* +
β_7 *(proportion of attack ads)* +
β_8 *(constituency mean ideology)* +
β_9 *(candidate party affiliation)* +
β_{10} *(incumbency status)* +
β_{11i} *(cycle$_i$)* + ε

Table 5-2 and Table 5-3 show the regression of the collective misperception model (excluding advertising data) for US House and US Senate candidates, respectively, controlled for

respondent partisan identification. In these specifications, the size of a district's minority population is significant and substantial for House candidates, but only among Democratic respondents for Senate candidates. Mean education levels are consistently significant and substantial influences decreasing *misperception*. Campaign spending is significant across all respondents, and incumbency is not significant for House candidates' misperception, though it is for Senate candidates among Republican and Independent respondents. House candidates for open seats tend to be more misperceived than challengers across all respondents, but the effect of being an open seat Senate candidate is not significantly different than being a challenger. There are some interesting partisan effects: interest in the news and church attendance are significant for House candidates only among Democratic-identifying respondents, while race and education level are significant for Senate candidates only among Democrats. The degree of misperception of House candidates among Democratic and Independent respondents was significantly different from 2006 levels across all other election cycles, and there is a similar effect among Democrats considering Senate candidates. Consistent with previous analyses, candidates tended to be more accurately perceived by opposite-partisan respondents, while co-partisans tend to be misperceived, and the effect is substantially reduced among non-partisan respondents.

Tables 5-4 and 5-5 repeat the *collective misperception* model regression, but include advertising data, which restricts the election cycles to 2010-14. The results are generally similar to the previous specifications, with a few interesting exceptions. For example, among candidates who advertise, misperception tends to be much lower among constituencies who are more interested in news and politics, and constituency education level among only districts with campaign ads is much less of an influence on misperception than among all candidates generally. Relative numbers of advertisements has an insignificant and unsubstantial effect on

misperception, but the proportion of attack ads that a candidate runs, conditioned on the fact they ran any ads at all, tended to decrease respondent misperception across all partisan groups, though in several cases the effect is not statistically significant.

Table 5-2: Regression Analysis Summary of District and Campaign Variables Predicting Misconception of House Candidates, By Respondent Party ID (US House of Representatives, 2006-2014)

Variable	All Resp	Democrats	Republicans	Independents
Mean District Minority Population	-0.62***	-0.65***	-0.38***	-0.38***
	(0.08)	(0.09)	(0.09)	(0.13)
Mean District Education Level	0.50***	0.59***	0.29**	0.58***
	(0.12)	(0.13)	(0.13)	(0.19)
Mean District Interest in News	0.65***	0.89***	0.43	0.36
	(0.25)	(0.27)	(0.27)	(0.41)
Mean District Frequency of Church Attendance	-0.53***	-0.94***	-0.05	-0.53*
	(0.17)	(0.19)	(0.19)	(0.29)
Log of Campaign Spending	0.20***	0.17***	0.22***	0.21***
	(0.01)	(0.01)	(0.01)	(0.02)
District Mean Ideology	0.11***	0.05**	0.06***	0.11***
	(0.02)	(0.02)	(0.02)	(0.03)
Candidate Party: Republican	0.09***	0.81***	-0.57***	-0.14***
	(0.02)	(0.02)	(0.02)	(0.04)
Incumbency Status: Incumbent	-0.04*	-0.01	0.01	-0.00
	(0.03)	(0.03)	(0.03)	(0.04)
Incumbency Status: Open Seat	-0.14***	-0.13***	-0.11***	-0.13**
	(0.04)	(0.04)	(0.04)	(0.06)
Election Cycle: 2008	0.49***	0.59***	0.20	0.57**
	(0.14)	(0.15)	(0.16)	(0.23)
Election Cycle: 2010	0.45***	0.53***	0.23	0.67***
	(0.13)	(0.14)	(0.15)	(0.22)
Election Cycle: 2012	0.30**	0.45***	0.05	0.47**
	(0.13)	(0.14)	(0.14)	(0.21)
Election Cycle: 2014	0.18	0.38***	-0.09	0.36*
	(0.12)	(0.13)	(0.14)	(0.20)
Constant	-4.20***	-4.47***	-3.60***	-4.50***
	(0.27)	(0.29)	(0.29)	(0.44)
N (candidates)	2972	2970	2965	2850
R^2	0.26	0.43	0.27	0.09

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*

Table 5-3: Regression Analysis Summary of District and Campaign Variables Predicting Misconception of Senate Candidates, By Respondent Party ID (US Senate, 2006-2014)

Variable	All Resp	Democrats	Republicans	Independents
Mean District Minority	-0.32	-0.64*	-0.10	-0.03
Population	(0.27)	(0.29)	(0.29)	(0.31)
Mean District Education Level	1.02**	1.41***	0.86*	0.48
	(0.46)	(0.48)	(0.49)	(0.53)
Mean District Interest in News	-0.28	-0.80	-0.57	0.74
	(1.01)	(1.06)	(1.07)	(1.17)
Mean District Frequency of	0.04	-0.31	0.25	0.22
Church Attendance	(0.54)	(0.56)	(0.57)	(0.62)
Log of Campaign Spending	0.10***	0.11***	0.09***	0.09***
	(0.02)	(0.02)	(0.02)	(0.02)
District Mean Ideology	0.11*	0.14**	0.05	0.04
	(0.06)	(0.07)	(0.07)	(0.07)
Candidate Party: Republican	-0.15***	0.66***	-0.90***	-0.28***
	(0.05)	(0.05)	(0.05)	(0.06)
Incumbency Status: Incumbent	0.11*	0.09	0.19***	0.23***
	(0.06)	(0.06)	(0.06)	(0.07)
Incumbency Status: Open Seat	0.07	0.04	0.12*	0.04
	(0.07)	(0.07)	(0.07)	(0.08)
Election Cycle: 2008	0.94*	1.38**	0.80	0.18
	(0.56)	(0.58)	(0.59)	(0.64)
Election Cycle: 2010	0.85	1.29**	0.69	0.29
	(0.53)	(0.55)	(0.56)	(0.61)
Election Cycle: 2012	0.82	1.26**	0.66	0.17
	(0.50)	(0.53)	(0.53)	(0.58)
Election Cycle: 2014	0.73	1.18**	0.54	0.17
	(0.48)	(0.50)	(0.50)	(0.55)
Constant	-3.18***	-3.84***	-2.15**	-3.38***
	(0.0.85)	(0.89)	(0.90)	(0.98)
N (candidates)	438	438	1186	1176
R^2	0.16	0.33	0.30	0.10

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*

Table 5-4: Regression Analysis Summary of District and Campaign Variables Predicting Misconception of House Candidates, By Respondent Party ID, Including Advertising Data (US House of Representatives, 2010-2014)

Variable	All Resp	Democrats	Republicans	Independents
Mean District Minority Population	0.14	-0.24	0.48***	0.00
	(0.16)	(0.18)	(0.17)	(0.24)
Mean District Education Level	0.30	0.80	-0.29	0.49
	(0.45)	(0.50)	(0.48)	(0.67)
Mean District Interest in News	1.48***	1.71***	1.37**	0.53
	(0.55)	(0.61)	(0.58)	(0.82)
Mean District Frequency of Church Attendance	-0.86**	-1.57***	-0.37	-0.39
	(0.37)	(0.41)	(0.39)	(0.55)
Log of Campaign Spending	0.20***	0.15***	0.23***	0.21***
	(0.03)	(0.03)	(0.03)	(0.04)
Relative Number of Campaign Ads	-0.04	-0.02	-0.05	-0.05
	(0.04)	(0.05)	(0.04)	(0.06)
Proportion of Attack Ads	0.18***	0.13*	0.18***	0.12
	(0.06)	(0.07)	(0.07)	(0.10)
District Mean Ideology	-0.01	-0.04	-0.06	-0.07
	(0.04)	(0.05)	(0.05)	(0.07)
Candidate Party: Republican	0.07*	0.91***	-0.64***	-0.20***
	(0.04)	(0.04)	(0.04)	(0.06)
Incumbency Status: Incumbent	0.10**	0.05	0.14***	0.14*
	(0.05)	(0.05)	(0.05)	(0.07)
Incumbency Status: Open Seat	-0.14***	-0.16***	-0.12**	-0.17**
	(0.05)	(0.06)	(0.05)	(0.08)
Election Cycle: 2012	-0.17***	-0.08	-0.20***	-0.35***
	(0.06)	(0.06)	(0.06)	(0.09)
Election Cycle: 2014	-0.19**	-0.10	-0.21**	-0.29**
	(0.09)	(0.09)	(0.09)	(0.13)
Constant	-4.30***	-4.31***	-3.95***	-4.01***
	(0.59)	(0.65)	(0.62)	(0.87)
N (candidates)	665	665	665	661
R^2	0.28	0.51	0.45	0.19

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*

Table 5-5: Regression Analysis Summary of District and Campaign Variables Predicting Misconception of Senate Candidates, By Respondent Party ID, Including Advertising Data (US Senate, 2010-2014)

Variable	All Resp	Democrats	Republicans	Independents
Mean District Minority Population	-0.65*	-0.82**	-0.59	-0.56
	(0.36)	(0.37)	(0.37)	(0.38)
Mean District Education Level	1.15	3.18**	0.67	2.84*
	(1.25)	(1.30)	(1.28)	(1.31)
Mean District Interest in News	-1.09	-1.06	-1.52	-1.86
	(1.87)	(1.95)	(1.91)	(1.97)
Mean District Frequency of Church Attendance	-0.61	-0.89	-0.33	-0.71
	(0.88)	(0.91)	(0.90)	(0.92)
Log of Campaign Spending	0.09***	0.09***	0.09***	0.08***
	(0.03)	(0.03)	(0.03)	(0.03)
Relative Number of Campaign Ads	0.05	0.06	0.09	0.02
	(0.06)	(0.06)	(0.06)	(0.07)
Proportion of Attack Ads	0.22*	0.12	0.25**	0.17
	(0.12)	(0.12)	(0.12)	(0.13)
District Mean Ideology	0.01	0.05	-0.06	0.02
	(0.10)	(0.10)	(0.10)	(0.11)
Candidate Party: Republican	-0.15**	0.78***	-1.02***	-0.40***
	(0.07)	(0.07)	(0.07)	(0.07)
Incumbency Status: Incumbent	0.16*	0.19**	0.15	0.28***
	(0.09)	(0.09)	(0.09)	(0.09)
Incumbency Status: Open Seat	0.17**	0.19**	0.17**	0.14
	(0.08)	(0.09)	(0.08)	(0.09)
Election Cycle: 2012	-0.12	-0.04	-0.15	-0.26
	(0.16)	(0.16)	(0.16)	(0.16)
Election Cycle: 2014	-0.10	-0.01	-0.16	-0.22
	(0.23)	(0.24)	(0.23)	(0.24)
Constant	-1.64	-2.95*	-0.29	-1.61
	(1.63)	(1.69)	(1.66)	(1.71)
N (candidates)	232	232	232	232
R^2	0.17	0.43	0.56	0.29

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*

5.3 What Informs Voters?

Congressional candidates are generally believed to be more ideologically moderate than they really are, as evidenced by the large negative constant terms on each regression in the preceding analyses. The individual and collective misperception analyses together reveal the characteristics (individual, collective, campaign, and candidate) that are affect voters' knowledge about their candidates' ideology, whether that effect is to improve the accuracy of that knowledge or not. At the individual level, a person's level of education correlates to improved knowledge, as does the person's self-described interest in news and politics. A person who is a member of a minority (non-white) group tends to have less accurate perception, as does someone who frequently attends church services (excepting perception of Democratic Senate candidates).

Generally, the effect of the various factors on individuals' accuracy of perception is similar across House and Senate, and across Republican and Democratic candidates. The noteworthy exception to that outcome is the effect of the voters' own partisan identification. Democratic voters (relative to independent, non-partisan voters) are likely to believe Democratic congressional candidates are more moderate, and more likely to believe Republican candidates are more extreme. Among Republican voters, there is a similar effect of co-partisan favoritism, but the effect is skewed a bit. Republican voters tend to perceive Democratic candidates as more extreme than reality by a larger degree than the misperception of Republican candidates by Democrats. Republican voters also perceive their own co-partisan candidates slightly more accurately than Democrats perceive their co-partisans. So, while voters generally perceive candidates as more moderate than reality, this effect among is smaller Republican candidates than it is among Democratic candidates, and, controlling for voter partisan identification,

individuals are less likely to see their co-partisan candidates' more non-centrist ideological leanings.

The factors that inform individual voters have a similar effect among the electorate at large, albeit with some interesting variations. Just as more education correlates to improved accuracy of perception among individuals, it also improves the perception of the electorate collectively, though the effect is greater for Democratic-identifying voters, especially regarding Senate candidates. At the individual level, interest in politics correlates with improved accuracy of perception, but collectively, that factor only has a significant and substantial effect on Democratic voters' perceptions of House candidates. Being a member of a minority group correlates to less accurate perception of candidates among individual voters, and the effect is similar collectively, but only regarding House candidates, and the magnitude of the effect is much larger among Democratic voters. Voters who attend church services more frequently tend to have less accurate perception of candidates, but electorates with higher mean church attendance only see this effect regarding Democratic House candidates, and for other candidates the effect is absent. Taken together, the factors that affect individual voter knowledge, both increasing and decreasing accuracy of perception, are more influential collectively among Democratic voters, and more so for House candidates than Senate.

5.3 Campaign and Candidate Characteristics

Across all specifications of the collective misperception model, there are two factors that have consistently significant and substantial effect: campaign spending and candidate party affiliation. Campaign spending serves to improve the accuracy of voters' perception of candidate ideology, and the effect is visible among voters and candidates without regard to party

or office sought. The magnitude of the effect of spending is also similar across party lines within the House and Senate, though it is approximately twice as large among House candidates.

The effect of campaign spending in informing voters does not appear to relate to the campaign's advertising budget. The number of ads run by a campaign is statistically insignificant and near zero magnitude. The types of ads, however, are important to voter perceptions, as the proportion of attack ads run by a given campaign has an effect similar to that of campaign spending, though the effect is not visible among independent voters or, for Senate campaigns, among Democratic voters.

A candidate's status as an incumbent, challenger, or seeking an open seat has an interesting effect on voter misperception of their ideology. In most cases, the accuracy of voters' perception is not correlated to whether the candidate is an incumbent or challenging a sitting legislator. This is generally true for House candidates, but in the Senate, Republican and Independent voters have significantly more accurate perceptions of incumbents than they do of challengers. In the House, candidates for open seats are consistently less accurately perceived than challengers and incumbents, but in the Senate, that effect all but disappears.

5.4 The Electoral Blind Spot and the Partisan Lens

There are two characteristics that are clear in these data: candidates are generally misperceived as more centrist than reality, and factors that are understood to inform voters have the effect of improving perception. The electoral blind spot concept predicts both of these effects (Bawn et al, 2012). The effect of the blind spot is to decrease voter awareness of a candidate's ideology: The voter is unable to distinguish the candidate's position from any other position sufficiently close to the center. To the voter then, the candidate effectively appears centrist. The collective effect of a constituency of voters who all have their own, differently

sized blind spots is that candidates are generally misperceived as being more centrist. Bawn et al also implies that the magnitude of that effect should be modulated by the amount of information voters have. In fact, voters' education and interest in the news, both of which should have the effect of making voters more informed, improve perception. Similarly, campaign spending and attack advertising can be effective at providing more information to voters, and both have the effect of improving perception.

There are other characteristics of the data, however, that are not predicted by the blind spot concept; principal among them is the effect of partisanship on the misperception of candidate ideology, a factor that Bawn et al don't significantly address (2012). Democratic voters' degree of centrist misperception of Republican candidates is much smaller than it is for Democratic candidates, and likewise Republicans' misperception of Democratic candidates is smaller than it is for Republican candidates. Voters of each party see their co-partisan candidates in a more moderate light, an effect that is significantly smaller among self-described independent voters. The electoral blind spot was presented as a circle, obscuring the center of a two-dimensional ideological space, with the circle's radius determined by the voter's knowledge or available information. The results presented here argue that the area obscured is not symmetrical. Effectively, partisan voters extend the blind spot further to their preferred side of the spectrum and simultaneously retract it from the opposition's side. They are quite aware of, and exaggerate, partisanship among the opposition, but are convinced that their co-partisan candidates are more moderate than they actually are. This shaping of the blind spot is consistent with the concept of the *partisan lens*, in which people interpret information from their own partisan perspective. Information that contradicts their perspective is rejected, while information that is consistent with their partisan identification is more readily considered. The "extension" of

the blind spot to a person's preferred side of the ideological spectrum, while "retracting" it from the opposing side, implies that the person is rejecting information that might give them a more accurate perception of their co-partisans as non-centrist, while accepting information that reveals non-centrist leanings of opposite-partisan candidates.

The electoral blind spot is evident in the data. Voters are blinded by a lack of information and more information allows them to see better. Partisanship drives what they see, however, as they appear to be filtering information through a partisan lens. In Chapter 6, I explore exactly how partisanship drives perception by looking at the relationships between voters' own ideology and their perception of their candidates'.

CHAPTER 6: THE PARTISAN MIRROR

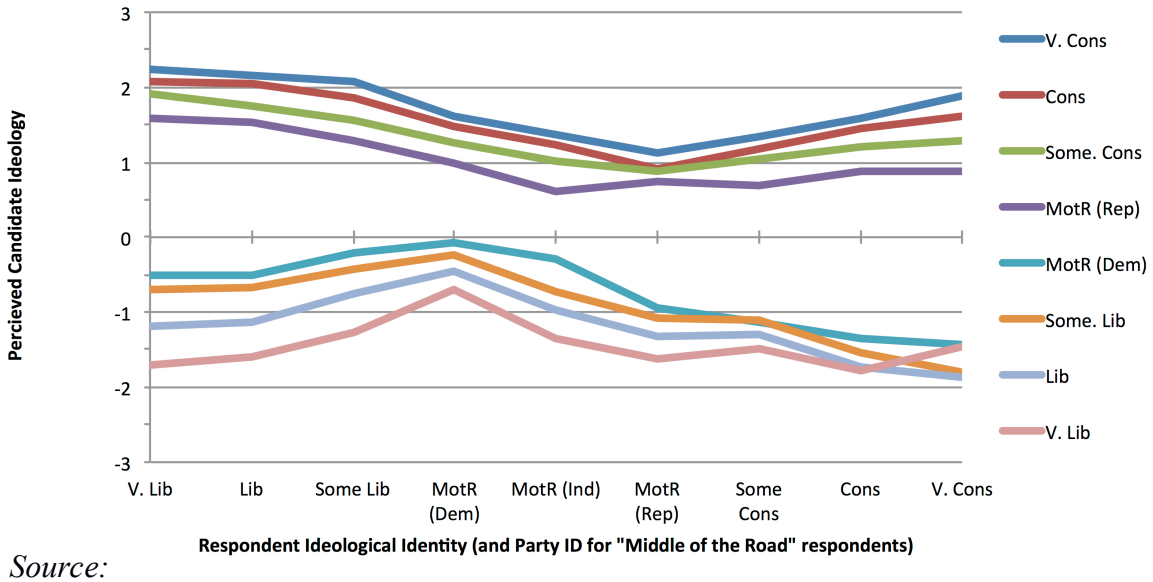
In Chapter 5, I demonstrated that misperception is a function of partisanship, specifically that voters tended to be more misperceived about the ideology of their co-partisan candidates (thinking they are more moderate than reality) than they were about opposite-partisan candidates. Recognizing that misperception is significantly affected by voter partisan identity, and that partisan identity can itself be broken down into degrees of partisan ideology, one might wonder whether there exists a more nuanced relationship between candidate misperception and voter ideology than has been thus far explored. In examining whether misperception is a function of degrees of voter ideology, I consider that misperception is itself a function of perceived and actual candidate ideology. Since actual candidate ideology is independent of voters' characteristics, the relationship of interest is between perceived candidate ideology and the voter's own ideology. Specifically, I compare voters' perceptions of candidates' ideology to both the voters' own ideology and the candidates' actual ideology to determine how each affects perception. I also consider whether there is a difference between self-identified voter ideology and an objective measure of voter ideology in the relationship to perception of candidate ideology.

6.1 Individual Perception

The influence of partisan identification on perception of candidate ideology can be explored in more detail by using individuals' assessment of their own ideology and comparing that to their assessment of their candidates' ideology. The CCES respondents were asked to identify themselves as some degree of liberal, middle of the road, or conservative, on the same scale (either a 0-100 point measure or by ideological label, recoded to a 7-point scale, see

Chapter 3) as they were asked about candidates. This allows a simple comparison of the two, controlling for the candidates' actual ideology as revealed by their DW-DIME score, recoded to the same 7-point scale for comparison (See Chapter 3). Figure 6-1 depicts the mean value of all candidates' perceived ideology for each value respondent self-identified ideology on the 7-point scale, with separate calculations for Republican and Democratic candidates. To control for candidate actual ideology, each value of respondent ideology reflects a separate mean perceived ideology for each value of candidate actual ideology. For example, among respondents who describe themselves as "somewhat liberal," the mean value of perceived ideology of Democratic candidates who are actually "very liberal" is -1.27, and the mean value of perceived ideology of Democratic candidates who are actually "somewhat liberal" is -0.42.[12]

Figure 6-1: Mean Candidate Perception Given Respondent Ideology, by Candidate Actual Ideology



Source:
Candidate and voter perceived ideology: CCES Survey results from 2006-2014
Candidate actual ideology: Database on Ideology, Money In Politics, and Elections

[12] Interpretation of the mean value of perceived ideology uses the same 7-point scale, so a value of -1.27 places the candidate between "somewhat liberal" and "liberal", and a -0.42 is between "middle of the road" and "somewhat liberal."

The mean values (among all CCES respondents, nationwide) of candidate perceived ideology appears to vary little as a function the candidates' actual ideology. The mean perception is more centrist than respondents' self-declared ideology, across the entire spectrum, and more so among co-partisans, which corresponds to the *electoral blind spot* and *partisan lens*-related findings from Chapter 5. Mean perception appears to be largely a function of the respondents' own ideology, at least as much as or more than the candidates' actual ideology. The strongest effect of actual ideology appears to be among perceptions of Democratic candidates by liberal respondents. The dominant effect is that respondents appear to perceive their candidates to have ideologies proportional to their own in terms of distance from the center, and that a mirroring effect is often at least as significant as the candidates' actual ideology. There are other interesting effects to note in Figure 6-1 relating to perception of "middle of the road" candidates and non-partisan respondents. Voters who consider themselves "middle of the road" yet also identify with one of the political parties tend to follow the same pattern as voters who are "somewhat" liberal or conservative, as their partisan identification would indicate. Similarly, candidates who are actually "middle of the road" are perceived as very similar to their partisan-affiliated counterparts.

To more precisely determine the relative impact of respondents' own ideology on their perception of their candidates, I develop a simple model of candidate perception with descriptive variables of respondent self-perception and actual candidate ideology. I control for respondent ideology (liberal/conservative), candidate partisan affiliation, incumbency status (Incumbent/Challenger/Open Seat), and office sought (House/Senate). Table 6-1 consists of just the coefficients from this series of regressions.[13]

[13] See appendix for the full regression results.

Table 6-1: Regression Summary of Individually Perceived Congressional Candidate Ideology by Respondent Self-Perception and Candidate Actual Ideology, Controlled for Co-Partisan Relationships, Incumbency Status, and Office (2006-2014 Congressional Elections)

Candidate Partisan Affiliation and Office Sought	Liberal Respondents	Conservative Respondents
Among Incumbent Candidates		
House Rep	-0.08*** / 0.32***	0.20*** / 0.26***
House Dem	0.20*** / 0.48***	-0.25*** / 0.25***
Senate Rep	-0.11*** / 0.25***	0.14*** / 0.25***
Senate Dem	0.14*** / 0.42***	-0.33*** / 0.34***
Among Challenging Candidates		
House Rep	-0.13*** / 0.26***	0.21*** / 0.25***
House Dem	0.21*** / 0.03	-0.28*** / -0.01
Senate Rep	-0.15*** / 0.38	0.06*** / 0.48***
Senate Dem	0.20*** / 0.28***	-0.27*** / 0.09***
Among Open Seat Candidates		
House Rep	-0.11*** / 0.28***	0.26*** / 0.21***
House Dem	0.22*** / 0.41***	-0.27*** / 0.24***
Senate Rep	-0.06*** / 0.21***	0.13*** / 0.46***
Senate Dem	0.13*** / 0.47***	-0.29*** / 0.30***

Paired Values are Regression Coefficients for Respondent Self-Identified Ideology / Candidate Actual Ideology
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*

Examining these regression coefficients, a candidates' actual ideology generally has a larger effect on perception than respondent ideology, but there is in most cases a statistically significant and substantial effect of respondents' own ideology on perception of candidate ideology. The influence of respondent ideology is weakest among liberal respondents' perceptions of Republican candidates for the House, and to a lesser degree, the Senate. Respondents' own ideology has its greatest influence on perception among conservative

respondents considering Democratic House candidates, in which cases the effect of actual ideology is less than that of voters' own ideology. There is a similar, but slightly weaker relationship among conservatives and Democratic Senate candidates. Incumbency status does not have a noticeable impact on these relationships.

6.2 Collective Perception

Using the same process of aggregating individual data into electorate-level data as I used to develop the *collective misperception* model (Chapter 5), I examine the mean value of candidates' perception across their district (House) or state (Senate) as a function of their actual ideology and the mean ideology value for all respondents in their particular electorate. I prepare a series of regressions of candidate perception using information from the individual perception analysis as a guide, noting first that in both the mean value and regression analyses there was a negative slope/coefficient for evaluations of candidates from respondent's opposing party. As a result, the model specification analyzes co-partisan perception separately from opposite party perception. So, for example, one specification will regress the candidates' mean perception by their districts' liberal respondents on the mean self-perception of the districts' liberal voters and the candidates' actual ideology, controlled for candidate party, office, and incumbency. The results of this series of regressions are presented in Table 6-2.

Review of the results in Table 6-2 shows a less clear relationship between perception and respondents' own ideology than the relationship visible in the *individual perception* analysis. Among liberal respondents, there remains in most cases a significant and substantial effect of mean district ideology, and that effect is generally comparable to or larger than the effect of the candidates' actual ideology. Among conservative respondents, district ideology is, in most cases, insignificant, though it is more effective among open-seat candidates. Another interesting

Table 6-2: Regression Summary of Collectively Perceived Congressional Candidate Ideology by Respondent Self-Perception and Candidate Actual Ideology, Controlled for Co-Partisan Relationships, Incumbency Status, and Office (2006-2014 Congressional Elections)

Candidate Partisan Affiliation and Office Sought	Liberal Respondents	Conservative Respondents
Among Incumbent Candidates		
House Rep	0.19* / 0.19***	0.51*** / 0.21***
House Dem	0.49*** / 0.44***	-0.21 / 0.14***
Senate Rep	-0.93* / 0.49***	0.32 / 0.52***
Senate Dem	1.26*** / 0.53***	-0.72 / 0.55***
Among Challenging Candidates		
House Rep	0.64** / 0.08	0.23 / 0.09**
House Dem	0.63*** / -0.04	-0.30 / -0.11
Senate Rep	0.86 / 0.25***	0.25 / 0.20***
Senate Dem	2.71*** / 0.19*	1.06 / 0.03
Among Open Seat Candidates		
House Rep	-0.01 / 0.21***	0.77*** / 0.17***
House Dem	1.51*** / 0.25***	-0.57** / 0.09
Senate Rep	1.05** / 0.18***	-0.12 / 0.37***
Senate Dem	0.97 / 0.40***	1.70** / 0.21**

Paired Values are Regression Coefficients for Respondent Self-Identified Ideology / Candidate Actual Ideology
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*

outcome is the lack of negative coefficients on opposite-party pairings. For example, the coefficient on *Self Perceived Ideology* for liberal respondents evaluating House Republican challengers is 0.64. The significant and substantial positive coefficient means that as the liberal respondents become more centrist, they are perceive the Republican challengers as more extreme. This is the opposite of the effect observed in the *individual perception* analysis, and it is present in several of the *collective perception* results.

The preceding analyses of the effect of district / state mean ideology on perceptions of candidates rely on an aggregation of CCES respondents' *self-identified* ideologies. It is conceivable that these results are subject to some error due to respondents' possible inability to accurately identify their own ideology. Another possible influence on the results may be that respondents might allow their perception of candidates to influence their perception of their own ideology. To evaluate these possible distortions of district ideology, I compare the aggregated results from CCES with the mean district ideologies calculated by Tausanovitch and Warshaw (2013). The CCES district mean ideology values are highly correlated with the standardized district TW Scores (See Chapter 3) with a correlation coefficient of 0.86. I repeated the collective perception regression series using TW Score (See Table 6-3), though the nature of the TW Score data does not permit differential analysis between liberal and conservative constituents. The results of the regression show a significant and substantial effect of voter ideology on candidate perception for challengers, but little or no effect for other candidates.

Table 6-3: Regression Summary of Perceived Congressional Candidate Ideology by District TW Score and Candidate Actual Ideology, Controlled for Co-Partisan Relationships, Incumbency Status, and Office (2006-2014 Congressional Elections)

Candidate Partisan Affiliation and Office Sought		
Among Incumbent Candidates		
House Rep	-0.05** /	0.21***
House Dem	-0.02 /	0.26***
Senate Rep	0.21 /	0.36***
Senate Dem	0.42 /	0.42***
Among Challenging Candidates		
House Rep	0.10*** /	0.08**
House Dem	0.13*** /	-0.08
Senate Rep	0.15** /	0.16**
Senate Dem	0.47*** /	-0.03
Among Open Seat Candidates		
House Rep	0.02 /	0.17***
House Dem	0.11*** /	0.01
Senate Rep	-0.09 /	0.30***
Senate Dem	0.17* /	0.21**

Paired Values are Regression Coefficients for Respondent Self-Identified Ideology / Candidate Actual Ideology
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*

6.3 The Partisan Mirror

At the individual level of analysis, there is a strong relationship between voters' self-identified ideology and their perception of their candidates' ideology. In every specification of the *individual perception* model, the effect of respondent ideology is significant, and in nearly every case it is substantial, often equivalent to the effect of the candidate's actual ideology. The relationship is somewhat weaker at the aggregated district level, but there remains in many cases

a significant effect of respondent ideology. The direction of effect is also consistent in the individual analysis, with increasing individual partisanship (self-placement further from the "middle of the road" label) correlating to a perception of candidates of both parties as being proportionally further from the center. As in the *misperception* analysis in Chapter 5, the *electoral blind spot* effect is visible here, with candidates generally being perceived as closer to the center than they actually are, but more noteworthy is the tendency of perception to mirror voters' self-identified ideology.

This "mirroring" direction of effect is present in only about half of cases in the *collective perception* model, with no distinct systematic effect like that observed in the individual-level analysis. The nature of the analysis using TW Score prevents analysis of any mirroring effect because of the inability to differentiate the effect of voters of different ideologies. While the direction of effect in the collective analysis is not as consistent as that of the individual analysis, there remains a strong indication, especially among co-partisan respondent-candidate relationships, that there is a proportional effect in which a voter who considers themself to be "somewhat" conservative or liberal, for example, is more likely to think that both their candidates are also "somewhat" liberal or conservative, respective to their party affiliation. Likewise, a voter who considers themself to be "very" liberal or conservative tends to believe their candidates are both "very" liberal or conservative, respectively. This effect is consistent across degrees of candidate partisanship and, as noted, is often as stronger than the effect of the candidate's actual partisanship, particularly in the aggregate, district-level analysis.

Taken together with the results of the misperception analyses in Chapter 5, these results indicate that the *partisan lens* effect previously observed has a more nuanced nature than one in which voters are simply more likely to see their co-partisan candidate as moderate. At the

individual level, certainly, and to a lesser extent as an electorate, voters are actually projecting the magnitude of their own partisanship onto their candidates of both parties. This projection is tempered by the moderating force of the *electoral blind spot*, but it represents a *partisan mirror*-like effect, in which, rather than just seeing co-partisan moderation, voters are tending to see themselves in their candidates. In Chapter 7, I examine whether these perception effects manifest themselves in electoral outcomes, looking at whether proximity voting is visible in practice as voters prefer or reject candidates whom they perceive as being closer or further from their own positions.

CHAPTER 7: CANDIDATES IN MIRROR MAY BE CLOSER THAN THEY APPEAR

In Chapter 5, I demonstrated that one of the theorized characteristics of the *electoral blind spot*, the inability of voters to discern differences among policy positions that are sufficiently close to the ideological center, has some empirical evidence to support it. Specifically, voters tend to perceive candidates as more centrist than they really are, and informational factors can influence that effect. I also demonstrated a *partisan lens* effect, in which voters have a preference for candidates who share their partisan identification, so the moderating effect of the electoral blind spot is stronger on one side than the other. In Chapter 6, I demonstrated a *partisan mirror* effect, which layers onto the previous two findings the fact that voters' perception of their candidates' ideologies tend to mirror their own in terms of distance from the center. In an electorate that practices proximity voting, one might expect to see electoral outcomes that reflect voters' preferences for candidates who are closer to themselves, but given each of the previous findings, that expectation would be tempered by voters' perception of the candidates: voters are expected to prefer candidates whom *they perceive* to be closer, regardless of the candidates' or their own actual positions. Additionally, voters who perceive candidates as further than their opponents from the electorate's position should tend to be rejected, an effect that would be magnified as voters are better informed. In this Chapter I examine the results from congressional elections in the House and Senate between 2006 and 2014 to determine whether voters prefer centrists or candidates who are closer to the district mean ideology, and whether voters in a less misperceived (better informed) electorate tend to prefer the more proximal candidate in elections.

7.1 Preference for Centrists

The electoral blind spot is predicated on the concept that "The typical voter's ideal point is at the origin," or the midpoint of the ideological spectrum (Bawn et al, 2012). This assumption has roots in the Median Voter Theorem where candidates and policies in a majoritarian democracy will tend to converge on a central, median voter as a vote-maximizing strategy (Black 1948; Downs 1957). With a typical voter in the ideological center, Bawn et al suggests that the more informed voters will reject candidates as they get further from the center. I first test the assumption that distance from the center results in a loss of votes. I consider each candidate's DW-DIME ideology score (Bonica 2017), and compare their distance from the center (DW-DIME = 0) to their vote share in the general election. If the assumption were to hold that non-centrism costs vote share, I would expect to see an inverse relationship between distance from the center and vote share, where candidates who were less centrist would be less likely to win votes. My findings indicate that this is not the case, and often the opposite is true.

I first consider candidates' "actual" position as determined by their DW-DIME score. I regress vote share of candidates who ran in contested elections on the absolute value of the DW-DIME score, including variables for incumbency status, controlling for office sought (House or Senate), and allowing for interactions between DW-DIME score and incumbency status. The results of this regression are presented in Table 7-1, and show that distance from the center has a negative effect on vote share among challenging candidates, but it has a strong positive effect on vote share among incumbents and open-seat candidates.

Considering that individual elections are contests primarily between two major party candidates, I examine whether distance from the center relative to one's opponent may be a better test of the centrist-preferring assumption. For this test, I repeat the regression on vote

Table 7-1: Regression Analysis Summary of Incumbency and Ideological Distance Predicting Candidate Vote Share
(2006-2014 Congressional Elections)

Variable	
Candidate Distance from the Center	-8.21*** (1.74)
Incumbency Status: Incumbent	9.73*** (1.37)
Incumbency Status: Open Seat	-4.53** (1.85)
Incumbency * Distance: Incumbent	31.01*** (3.24)
Incumbency * Distance: Open Seat	36.01*** (4.30)
Office: Senate	-2.92*** (0.61)
Constant	44.38*** (1.16)
N (candidates)	3156
R^2	0.53

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*
Note: Candidate actual position is derived from DW-DIME Score (Bonica 2017)

share, using the difference between the absolute values of a candidates' DW-DIME score that of their opponent's. The results on this analysis are presented in Table 7-2, which shows that challengers and open seat candidates lose vote share when they are more extreme than their opponents, but the proximity difference between an incumbent candidate and their opponent does not have a significant effect on the incumbent's vote share.

Having previously established that voters' perception of their candidates' ideology is not always accurate, I repeat the previous two analyses using the aggregate district perception of the candidate's position rather than the DW-DIME score. The results for an individual candidate's

Table 7-2: Regression Analysis Summary of Incumbency and Ideological Relative Distance from Center Predicting Candidate Vote Share (2006-2014 Congressional Elections)

Variable	
Candidate Relative Distance from the Center	-5.57*** (1.43)
Incumbency Status: Incumbent	16.15*** (0.41)
Incumbency Status: Open Seat	7.75*** (0.54)
Incumbency * Distance: Incumbent	0.82 (2.05)
Incumbency * Distance: Open Seat	-10.18*** (2.47)
Office: Senate	-0.74 (0.57)
Constant	40.59*** (0.30)
N (candidates)	2073
R^2	0.43

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*
Note: Candidate actual position is derived from DW-DIME Score (Bonica 2017)

perceived distance from the center and opposing candidates' perceived relative distance are presented in Table 7-3. In this specification, we see a positive vote share change for perceived increased distance from the center for challengers and a negative vote share change for incumbents. Open seat candidates only see a small, less significant positive effect. Perceived distance from the center relative to an opponent results in a vote share decrease for challengers and open-seat candidates, and a negligible effect for incumbents.

The collective interpretation of these various approaches to investigating the effects of the Median Voter Theorem is that there is limited and conflicting evidence of its effects in these

Table 7-3: Regression Analysis Summary of Incumbency and Perceived Ideological Relative Distance from Center Predicting Candidate Vote Share (2006-2014 Congressional Elections)

Variable		
Candidate Distance from the Center	8.22*** (0.47)	
Candidate Relative Distance from the Center		-4.77*** (0.38)
Incumbency Status: Incumbent	41.42*** (0.98)	25.25*** (0.37)
Incumbency Status: Open Seat	9.92*** (1.43)	25.25*** (0.37)
Incumbency * Distance: Incumbent	-11.36*** (0.73)	0.92* (0.53)
Incumbency * Distance: Open Seat	1.85* (1.09)	-5.87*** (0.79)
Office: Senate	-1.84*** (0.59)	-0.66 (0.58)
Constant	25.99*** (0.55)	36.38*** (0.27)
N (candidates)	4148	4148
R^2	0.65	0.65

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*
Note: Candidate perceived position is derived from CCES respondent data (Ansolabehere 2010; Ansolabehere 2011; Ansolabehere 2012; Ansolabehere 2013; Ansolabehere and Schaffner 2015)

cases. In numerous cases, voters seem to be rewarding non-centrism among candidates, possibly as a result of non-ideological factors like familiarity with the candidate, or possibly as a result of the median voter in a given district being located somewhere other than the center of the spectrum.

7.2 Proximity Voting in Practice

If the median voter is located somewhere other than the center of the spectrum, then that point would be a better place to start an evaluation of voters' tendency to practice proximity voting per the Median Voter Theorem. I repeat the analyses in which I evaluate the effect of distance and relative distance (actual and perceived) on vote share, but in this case, I will calculate ideological distance from the mean ideological position of the electorate (both actual and perceived). The results of these analyses are presented in Table 7-4, which shows the effect of various measures of candidates' absolute distance from the mean voter; and Table 7-5, which shows the effect of various measures of relative distance from the mean voter.

Looking first at the relationship between vote share and individual candidates' proximity to their voters, there is a fair amount of difference in effect depending on how candidate and voter position is determined. There are some general trends evident in all four specifications:

- Incumbents perform better than challengers, open seat candidates' advantage is less than incumbents' but better than challengers
- Distance from voters results in a modest vote loss for challengers

Using perceived candidate position, distance from the voters results is a modest vote loss across all incumbency statuses. Using candidate actual position, the effect on vote share is small, but positive. For open-seat candidates, distance from voters results in a modest vote share loss in most cases. These results indicate that, while proximity voting may be driving vote choice, its effect on vote share is relatively small (less than 10 points), though in many elections large enough to have a decisive effect on the outcome.

Comparing vote share to candidates' relative distance from their individual opponents, I find in this specification also that incumbents perform better than challengers, open seat

Table 7-4: Regression Analysis Summary of Incumbency and Ideological Distance Predicting Candidate Vote Share (2006-2014 Congressional Elections)

Variable	Actual (A) or Perceived (P) Position			
	Candidate: A Voters: P	Candidate: P Voters: P	Candidate: A Voters: A	Candidate: P Voters: A
Candidate Distance from Mean Voter	-5.13*** (0.51)	0.98** (0.41)	-5.62*** (0.38)	-4.30*** (0.30)
Incumbency Status: Incumbent	9.44*** (1.29)	39.14*** (0.84)	16.25*** (1.03)	27.80*** (0.70)
Incumbency Status: Open Seat	4.60** (1.93)	22.78*** (1.35)	13.22*** (1.48)	20.94*** (1.06)
Incumbency * Distance: Incumbent	6.53*** (0.63)	-9.19*** (0.62)	1.04** (0.51)	-2.55*** (0.49)
Incumbency * Distance: Open Seat	2.75*** (0.94)	-7.28*** (0.99)	-2.71*** (0.71)	-6.78*** (0.69)
Office: Senate	-3.37*** (0.62)	0.05 (0.59)	-3.08*** (0.58)	0.15 (0.56)
Constant	51.55*** (1.09)	33.42*** (0.59)	53.49*** (0.90)	41.77*** (0.54)
N (candidates)	3156	4148	3153	4142
R^2	0.51	0.64	0.57	0.68

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*
Note: Candidate actual position is derived from DW-DIME Score (Bonica 2017). Voters' actual position is derived from TW-Score (Tausanovitch and Warshaw 2013). Both candidate and voter perceived position is derived from CCES respondent data (Ansolabehere 2010; Ansolabehere 2011; Ansolabehere 2012; Ansolabehere 2013; Ansolabehere and Schaffner 2015)

candidates' advantage is less than incumbents' but better than challengers. Here, however, a challenger who is further from the voters than an incumbent tends to fare better, and the vote share of the incumbent is accordingly less (though the effect not statistically significant). Like challengers, open seat candidates enjoy a small vote share increase for a given relative distance from the mean voter. Once again, these results do not reflect strong evidence for proximity

Table 7-5: Regression Analysis Summary of Incumbency and Relative Ideological Distance Predicting Candidate Vote Share

Variable	Actual (A) or Perceived (P) Position			
	Candidates: A Voters: P	Candidates: P Voters: P	Candidates: A Voters: A	Candidates: P Voters: A
Candidate Relative Proximity to Mean Voter	2.23*** (0.28)	2.56** (0.29)	3.53*** (0.21)	3.91*** (0.20)
Incumbency Status: Incumbent	14.30*** (0.43)	27.69*** (0.34)	10.97*** (0.41)	23.35*** (0.36)
Incumbency Status: Open Seat	6.80*** (0.54)	13.41*** (0.52)	5.06*** (0.49)	11.05*** (0.49)
Incumbency * Rel Distance: Incumbent	-0.15 (0.40)	-0.42 (0.41)	-0.29 (0.29)	-0.47* (0.28)
Incumbency * Rel Distance: Open Seat	1.05* (0.57)	2.37*** (0.67)	1.58*** (0.38)	2.99*** (0.39)
Office: Senate	-0.75 (0.56)	-0.51 (0.60)	-0.77 (0.50)	-0.60 (0.54)
Constant	41.55*** (0.31)	34.99*** (0.25)	43.28*** (0.30)	37.32*** (0.26)
N (candidates)	2073	4148	2073	4142
R^2	0.45	0.63	0.57	0.69

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*
Note: Candidate actual position is derived from DW-DIME Score (Bonica 2017). Voters' actual position is derived from TW-Score (Tausanovitch and Warshaw 2013). Both candidate and voter perceived position is derived from CCES respondent data (Ansolabehere 2010; Ansolabehere 2011; Ansolabehere 2012; Ansolabehere 2013; Ansolabehere and Schaffner 2015)

voting in practice. What they may reflect, however, is the very effect that is proposed by Bawn et al as the electoral blind spot: ill-informed voters do not punish candidates for being far from their own positions.

7.3 Misperceiving Proximity

Evidence thus far shows that not only are candidates not being punished in significant ways at the ballot box for being ideologically distant from voters, in some cases the candidates appear to actually be *benefitting* from the distance. This unintuitive result demands further examination, and, in the present study, the obvious avenue for that examination is the effect of information on this result. In an electorate with less information, is the predicted negative effect of distance from the voters lessened? When voters have more accurate perception of their candidates' ideologies, are they more likely to punish those who are further from themselves? To get the answers to these questions, I repeated the previous analyses on vote share as a function of ideological distance and included in the regressions *mean district misperception*, the average value of candidate *misperception* across the candidates' electorate. Those results are presented in Table 7-6.

Looking first at individual candidate distance from voters, the effect of misperception on vote share is relatively small. Recall that the measure of *misperception* is increasingly negative as respondents are less aware of candidate non-centrism. In Table 7-6, a negative coefficient for *misperception* means that as voter knowledge of candidate ideology is less accurate (belief that the candidate is more centrist than reality), vote share for the candidate increases by a small amount (3-9 points for each step on a 7-point ideology scale). The combined effect of the candidate's actual distance from voters and the voters misperception of that distance is smaller in magnitude and in the opposite direction. As candidate distance from voters increases and voter

Table 7-6: Regression Analysis Summary of Incumbency, Ideological Distance, and Misperception of Candidate Ideology Predicting Candidate Vote Share (2006-2014 Congressional Elections)

Variable	Actual (A) or Perceived (P) Position			
	Candidate: A Voters: P	Candidate: P Voters: P	Candidate: A Voters: A	Candidate: P Voters: A
Candidate Distance from Mean Voter	-8.14*** (0.55)	0.55 (0.41)	-5.90*** (0.44)	-2.64*** (0.50)
Incumbency Status: Incumbent	9.04*** (1.19)	30.07*** (1.03)	14.45*** (0.93)	22.72*** (0.86)
Incumbency Status: Open Seat	4.60** (1.78)	19.30*** (1.49)	11.42*** (1.31)	16.45*** (1.17)
Incumbency * Distance: Incumbent	6.32*** (0.59)	-6.85*** (0.72)	1.33** (0.46)	-2.81*** (0.56)
Incumbency * Distance: Open Seat	2.39*** (0.87)	-7.21*** (1.06)	-2.35*** (0.62)	-6.03*** (0.77)
Misperception	-5.30*** (0.67)	-3.52*** (0.59)	-8.51*** (0.46)	-3.17*** (0.54)
Distance*Misperception	-0.08 (0.33)	1.93*** (0.44)	1.83*** (0.26)	1.44*** (0.36)
Office: Senate	-2.51*** (0.58)	-2.32*** (0.57)	-2.06*** (0.51)	-2.14 (0.56)
Constant	53.97*** (1.06)	39.41*** (1.03)	51.55*** (0.89)	44.43*** (0.89)
N (candidates)	3129	3129	3126	3126
R^2	0.56	0.57	0.65	0.59

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*
Note: Candidate actual position is derived from DW-DIME Score (Bonica 2017). Voters' actual position is derived from TW-Score (Tausanovitch and Warshaw 2013). Both candidate and voter perceived position is derived from CCES respondent data (Ansolabehere 2010; Ansolabehere 2011; Ansolabehere 2012; Ansolabehere 2013; Ansolabehere and Schaffner 2015)

misperception increases (they are collectively less aware of the increasing distance), vote share decreases by a small amount (1-2 points). The combined effect of misperception and distance, given the effect of misperception alone, means that the increased distance causes a decrease in the vote share gain that results from misperception. Both of these results are consistent with the expected effect of an *electoral blind spot*.

Repeating these regressions using each candidate's distance from their voters relative to their opponent's distance, the effect of misperception alone is similar. Table 7-7 shows the magnitude of the coefficient on *misperception* is a bit smaller in all four specifications than it was for individual candidate distance, and its direction of effect is the same. Increased misperception results in a small increase in vote share. Given this effect, the combined effect of relative distance and misperception has a negative coefficient, implying that for a given degree of misperception, a candidate who is increasingly distant from their electorate than their opponent will actually see a small increase in vote share.[14] This latter effect, while quite small, is not a predicted effect of spatial voting or the electoral blind spot.

[14] I note here, that for about 15% of candidates, the value of misperception is positive, meaning the voters perceive the candidate to be more extreme than reality. In these cases, the positive coefficient implies a smaller vote share due to perception of greater extremism and an additional vote decrease as the candidate moves further from the voters.

Table 7-7: Regression Analysis Summary of Incumbency, Relative Ideological Distance, and Misperception of Candidate Ideology Predicting Candidate Vote Share (2006-2014 Congressional Elections)

Variable	Actual (A) or Perceived (P) Position			
	Candidate: A Voters: P	Candidate: P Voters: P	Candidate: A Voters: A	Candidate: P Voters: A
Candidate Relative Proximity to Mean Voter	1.44*** (0.36)	1.62*** (0.44)	2.44*** (0.27)	1.68*** (0.30)
Incumbency Status: Incumbent	14.24*** (0.43)	21.86*** (0.39)	11.09*** (0.41)	18.58*** (0.39)
Incumbency Status: Open Seat	6.74*** (0.54)	9.98*** (0.56)	5.04*** (0.48)	7.96*** (0.52)
Incumbency * Distance: Incumbent	0.36 (0.42)	0.10 (0.47)	0.15 (0.30)	0.15 (0.32)
Incumbency * Distance: Open Seat	1.19** (0.57)	2.29*** (0.71)	1.77*** (0.38)	2.59*** (0.44)
Misperception	-0.23 (0.32)	-2.57*** (0.27)	-0.52* (0.27)	-1.51*** (0.25)
Distance*Misperception	-1.18*** (0.27)	-0.55*** (0.31)	-1.30*** (0.17)	-2.18*** (0.20)
Office: Senate	-0.88 (0.56)	-2.91*** (0.59)	-0.81* (0.49)	-2.45*** (0.54)
Constant	41.69*** (0.37)	39.47*** (0.38)	43.15*** (0.33)	41.11*** (0.36)
N (candidates)	2070	3129	2070	3126
R^2	0.46	0.54	0.58	0.62

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*
Note: Candidate actual position is derived from DW-DIME Score (Bonica 2017). Voters' actual position is derived from TW-Score (Tausanovitch and Warshaw 2013). Both candidate and voter perceived position is derived from CCES respondent data (Ansolabehere 2010; Ansolabehere 2011; Ansolabehere 2012; Ansolabehere 2013; Ansolabehere and Schaffner 2015)

7.4 Choosing the Extremist

The effects of proximity and misperception, separately or combined, pale in comparison to incumbency in their effect on vote share. While incumbency is clearly a significant factor in the likelihood that a member of Congress is re-elected, not every incumbent wins: 7.4% of incumbents between 2006 and 2014 lost their re-election bids. The final question in this study is whether proximity and misperception affected the outcome of the election. Under what circumstances does a candidate who is further from the voters win the election? The electoral blind spot theory predicts that this will be a less probable outcome as voter information increases (as misperception decreases). To address this question, I perform a logistic regression to determine the probability of a candidate winning their election as a function of incumbency and misperception, controlled for whether the candidate is closer to or further from their constituency than their opponent. The results of these calculations are presented in Table 7-8 and graphically in Figure 7-1 with probability of winning the election as a function of misperception, controlled for incumbency status and candidate relative proximity to voters.

These results indicate that in all nearly all cases, a more proximal candidate is more likely to win an election than a similar candidate who is farther from the district's voters than their opponent. In a hypothetical, perfectly informed district (misperception = 0), a proximal incumbent has the highest probability of winning election, followed in order of decreasing probability by a distant incumbent, proximal open-seat candidate, distant open-seat candidate, proximal challenger, and distant challenger. This pattern holds for any level of misperception other than the 1.2% of cases where the value of misperception is greater than approximately 0.75 (where voters perceive candidates as more extreme than reality).

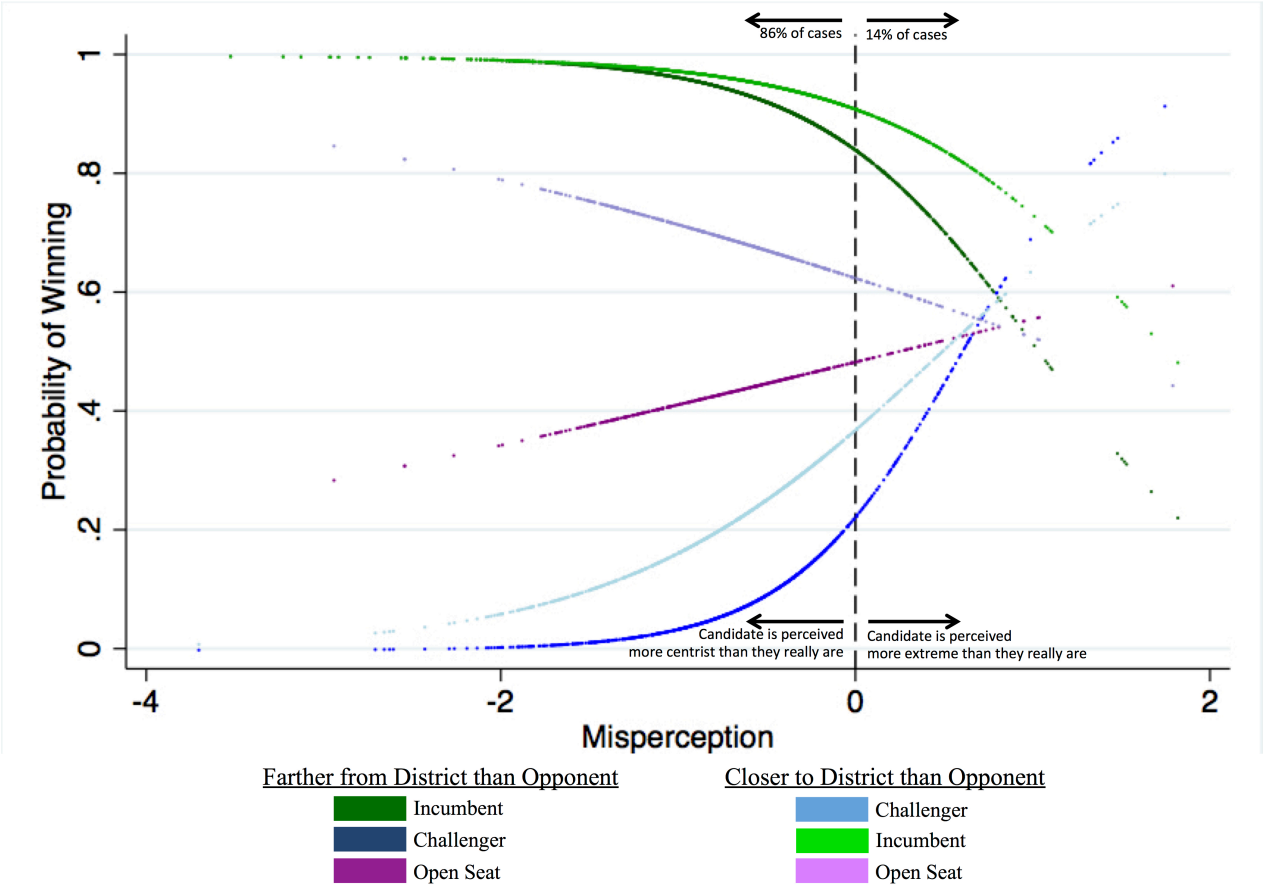
Table 7-8: Logistic Regression Summary of Incumbency and Misperception of Candidate Ideology Predicting Probability of Candidate Victory, Controlled for Relative Ideological Proximity to Electorate
(2006-2014 Congressional Elections)

Variable	Candidate Further from Electorate	Candidate Closer to Electorate
Misperception	2.08***	1.10***
	(0.28)	(0.21)
Incumbency Status: Incumbent	2.88***	2.83***
	(0.20)	(0.22)
Incumbency Status: Open Seat	1.17**	1.03***
	(0.25)	(0.29)
Incumbency * Misperception: Incumbent	-3.68***	-2.41***
	(0.35)	(0.32)
Incumbency * Misperception: Open Seat	-1.79***	-1.51***
	(0.36)	(0.34)
Constant	-1.23***	-0.52***
	(0.16)	(0.17)
N (candidates)	1503	1760
R^2	0.48	0.44

Standard Error values in parentheses
*Significance levels: *p<0.10, **p<0.05, ***p<0.01*
Note: Based on perceived candidate ideology and self-perceived voter ideology

At a modest level of misperception (m<-0.55), the probability of a distant incumbent winning converges with the probability of a proximal incumbent winning, both near *p(win)*=1.0. Essentially, as voters become less knowledgeable of candidate ideology, they almost always prefer *any* incumbent, regardless of whether the candidate is closer to them than the challenger. Among challengers, a more proximal candidate always enjoys a higher probability of winning than a distant challenger, even as voters are less aware of ideological distance, though challengers' chances become increasingly slim regardless of distance at high levels of misperception. These results are all consistent with the *electoral blind spot* concept, but reflect a strong preference for incumbents when information is low.

Figure 7-1: Predicted Probability of a Congressional Candidate Winning Election as a Function of District Misperception, by Incumbency and Relative Distance from Constituents



Proximal open seat candidates are always more likely to win than their more distant opponents, though in districts with less misperception (more information) the proximity advantage is smaller, which is contrary to expectations. Another noteworthy exception to the expected *blind spot* effects is that challengers who are farther from the district than the incumbents actually have a *higher* probability of winning, but these are very rare circumstances (~3% of cases).

In these results there is evidence of the electoral blind spot's predicted effects among most incumbent/challenger relationships. Voters tend to reject the more non-centrist candidate, and they are more likely to do so as they are better informed. The effect is inverted among open-

seat candidates, however: voters always prefer the more proximal candidate, but as information increases, proximal and distant candidates' chances of victory become more equitable. While it is rare for challengers to defeat incumbents, the fact that they are more likely to do so when voters are more aware of their relative extremism certainly bears more examination, as it is definitely not predicted by the electoral blind spot.

CHAPTER 8: CONCLUSIONS

This study sought to explore and define the effects of information and partisanship on voters' perceptions of candidates' ideology, and whether those perceptions had significant influences on electoral outcomes. Using concepts like the *electoral blind spot* and the *partisan lens* to focus my analysis, I first looked at information sources previous research has shown to be effective at increasing voters' political knowledge and examined which of them actually succeed in informing voters, meaning in this case that they make it more likely that voters will be able to accurately identify the ideology of their candidates. I then considered how that information and their own partisanship affected voters' perceptions of their candidates, as those effects were central to the idea that an *electoral blind spot* prevents voters from discerning between candidates who are ideologically moderate. I sought evidence of a blind spot in how voters' perceived candidates and whether those blind spot-induced perceptions resulted in electoral outcomes that favored more partisan candidates in low-information electoral environments.

To gather my evidence, I combined data from numerous sources to allow a thorough analysis of the relationships between information, perception, and electoral outcome. The Cooperative Congressional Election Studies provided data on voters themselves, as well as their perceptions of their own and their candidates' ideology (Ansolabehere 2010; 2011; 2012; 2013; Ansolabehere and Schaffner 2015). To these data I compared "actual" candidate ideology from the Database on Ideology, Money in Politics, and Elections (Bonica 2014; 2017), as well as "actual" voter ideology data from Tausanovitch and Warshaw (2013). I included finance data from the Federal Election Commision, advertising data from the Weseleyan Media Project (Fowler, Franz and, Rideout, 2014; Fowler, Franz and, Rideout, 2015), and news coverage from

NewsBank.com (2017). Armed with these combined data, I was able to calculate which forms of information were more or less effective at informing voters.

8.1 Findings: The Blind Spot, The Lens, and The Mirror

Among individual voters, demographic and personal characteristics like race (identifying as non-White) and higher frequency of church attendance correlate with voters having less accurate knowledge of candidate ideology, while those who claim more interest in news and politics or who have more formal education tend to have more accurate knowledge. On top of these factors, I found that partisanship also played a big role in how people perceived their congressional candidates: while all candidates tended to be perceived as more centrist than they actually were, Democratic candidates tended to be less accurately perceived than Republicans, and voters tended to believe that candidates whose party affiliation aligned with their own party identification were more moderate, while those from the opposing party were not.

The factors that tend to inform individuals generally translated to a more informed electorate, but there were some notable differences in these effects across party lines. Race (non-White) and regular church attendance continue to correlate at the district or state level to voters with less accurate knowledge, but the effect of both of these factors is much larger among Democratic voters than Republicans. Electorates with, on average, more advanced education and more professed interest in the news among the electorate tend to have more accurate perceptions of candidate ideology, but again, these factors have a stronger effect among Democratic voters. Campaign-specific characteristics tended to have a more uniform effect across party lines. Regardless of partisanship, campaigns that spent more money tended to be more informative, as their candidates were generally more accurately perceived. Among those campaigns that advertised on television, the ones who ran a larger proportion of attack-oriented

advertisements tended to have better-informed voters. As in the individual-voter analysis, partisanship at the district or state level played a significant and substantial role in candidate perception: Democratic candidates were perceived as more moderate by Democrats, Republican candidates were perceived as more moderate by Republicans.

These results indicate that both the *electoral blind spot* and *partisan lens* theories are describing effects for which we can see empirical evidence. Voters tend to see candidates as more moderate than they really are, and informational factors tend to change that effect. Voters' partisan identification leads them to apply the blind spot's moderating influence unequally, seeing opponents more clearly than their co-partisan candidates. The differential effect of informational factors on Democratic and Republican respondents indicates that the *partisan lens* effect is stronger among Republican voters. Layered on top of these effects, however, I find that there is an ideology effect more nuanced than strict partisan identification. Examining the relationship between voters' perceptions of candidate ideology, their perceptions of their own ideology, and the candidates' actual ideology from their DW-Dime score, I found that to a large degree, voters, particularly at the individual level, tended to view candidates as being proportionally as far from the ideological center as the voters perceived themselves to be. This *partisan mirror* effect functions in conjunction with the *electoral blind spot* and the *partisan lens* to give voters a perception of their candidates that is only partially influenced by the candidates' actual ideology.

The end result of these effects, particularly the *electoral blind spot*, is that, in practicing proximity voting, voters who perceive candidates as further than their respective opponents from their own ideological position should be expected to tend to reject those more distant candidates, and that effect should be stronger in better-informed electorates. Examining electoral outcomes

and various measures of candidate ideology (perceived and actual) relative to voter ideology (perceived and actual), I find that there is empirical evidence of proximity voting, but that it is tempered by the effects of voters lacking information. Voters generally prefer more proximal candidates, and that preference is stronger as they are more informed, though the latter effect does not hold for open-seat candidates. Somewhat contradictory to this finding, however, I show that when voters actually choose the more extreme of their two candidates, they do so while tending to perceive their favored candidate as even *more* extreme than they actually are.

8.1 Implications and Future Research

Having found evidence that the *electoral blind spot* functions as described by Bawn et al (2012), albeit tempered by previously unidentified partisanship effects, the implications of the theory bear consideration. The electoral implication of the theory is that policy-demanding parties will nominate candidates who are as far from the center as possible, so long as voters, in their relatively uninformed state, are unable to tell that the candidates aren't moderates. Having found that the blind spot's effect is subject to partisanship influences, that it is most effective at describing incumbent-challenger contests (vice open seats), and that partisan voters tend to see co-partisans as similar to themselves, the practice of proximity voting may enable parties to nominate candidates who are even more non-centrist than previously believed. As voters prefer co-partisans and see those candidates as more moderate than they are, yet also project some degree of their own ideology onto the candidate, parties have a great deal of leeway to nominate non-centrists, especially in seats that may be considered safe, recognizing that a candidate must be very extreme relative to co-partisan voters before those voters will recognize just how far the candidate is from themselves.

This implication is somewhat tempered by the fact that the effects described here are more prevalent in incumbent-challenger elections, in which one party has nominated as their candidate the current office-holder. The findings herein would allow for the incumbent, especially one in a more partisan district, to move further from the center while in office and not face a serious risk of electoral loss as a result. The opposing party, on the other hand, in their attempt to win the seat, must nominate a challenger who is more centrist, as the dominant party in the electorate will tend to see the challenger more clearly, and even project some of their own partisanship onto the candidate, making them appear more extreme, which will decrease the probability that the challenger succeeds.

To further explore the relationships described in this study and their implications, it would be helpful to understand better the phenomena that influence the effect I called the *partisan mirror*. If voters perceive their candidates to be similar to themselves ideologically, is this an effect in which they project their own beliefs onto their favored candidate, or are they tending to adopt the ideology that they think their preferred candidate holds. The former implies a less-informed voter, while the latter implies an informed voter and perhaps some motivated reasoning to be more in line with the voter's impression of the party.

Another finding that bears more investigation is the tendency for the effects described herein to be stronger in incumbent-challenger contests. In Figure 7-1, I even show that differences in perceived distance from voters may results in non-proximal voting patterns among electorates choosing open-seat candidates. Since open seat elections generally do not have one candidate who benefits from having already held the office being sought, one might expect voters to follow proximity voting principles more closely, but in practice, less proximal open-seat candidates perform better in low-information environments.

In "A Theory of Political Parties," Bawn et al use the electoral blind spot fundamentally as a means of describing how parties choose their nominees. In this study I have focused on the general election process without exploring how information and perception affect nominating decisions. It would be interesting to explore whether there is a relationship between information and the ideology of the candidate that is ultimately nominated relative to the candidates rejected by the nominating process. Do parties in a lower-information electorate prefer more extreme candidates in the nominating process, recognizing somehow that the electoral environment will permit a more extreme candidate to be viable in the general election? The answer to this question will go much further than I have herein to validate the process described by the *electoral blind spot* concept.

Finally, I found that when voters actually do elect a challenger who is further from the district mean ideology than their opponent, they do so from a place of improved knowledge—they tend to be more aware of the less-proximal candidate's ideology and then vote for them anyway. While these cases are relatively rare, they present an intriguing exception to the rule that bears further investigation. I would be informative to understand whether there are any systematic factors at work in these cases that lead voters to reject the proximal candidate. These factors may be related to candidate valence, as simple as voters rejecting a candidate mired in scandal, or voters preferring a candidate with whom they identify on the basis of race, gender, or some similar characteristic.

These known unknowns aside, the evidence of the electoral blind spot's effects in recent congressional elections is clear. Its presence, along with the partisanship-driven factors that combine with it, helps us understand the value of an informed electorate to an effective

democracy. When voters have more knowledge, they can be expected to choose more representative candidates and reject those who would pursue more extreme policy goals.

APPENDIX

A6.1 Complete regression output for Table 6-1: *Regression Summary of Individually Perceived Congressional Candidate Ideology by Respondent Self-Perception and Candidate Actual Ideology, Controlled for Co-Partisan Relationships, Incumbency Status, and Office (2006-2014 Congressional Elections)*

Incumbent Candidate, Liberal Respondents, House Republican

Source	SS	df	MS		
Model	509.45413	2	254.727065	Prob > F	0.0000
Residual	11827.1534	6558	1.80346956	R-squared	0.0413
Total	12336.6075	6560	1.88058042	Root MSE	1.3429

Percep~HCand2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	-.0842207	.0223548	-3.77	0.000	-.1280435	-.0403979
Actual_HCand2	.3269425	.0200713	16.29	0.000	.2875962	.3662888
_cons	1.139183	.0593926	19.18	0.000	1.022754	1.255612

Incumbent Candidate, Liberal Respondents, House Democrat

Source	SS	df	MS		
Model	3866.20281	2	1933.10141	Prob > F	0.0000
Residual	37565.2501	25178	1.49198706	R-squared	0.0933
Total	41431.4529	25180	1.64541116	Root MSE	1.2215

Percep~HCand1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	.1969314	.0104539	18.84	0.000	.1764411	.2174218
Actual_HCand1	.4793362	.0103148	46.47	0.000	.4591186	.4995538
_cons	.2514448	.0301306	8.35	0.000	.192387	.3105026

A6.1 Complete regression output for Table 6-1: Continued

Incumbent Candidate, Conservative Respondents, House Republican

Source	SS	df	MS	Number of obs =	10644
				F(2, 10641) =	183.98
Model	584.629801	2	292.3149	Prob > F =	0.0000
Residual	16906.4724	10641	1.58880485	R-squared =	0.0334
				Adj R-squared =	0.0332
Total	17491.1022	10643	1.64343721	Root MSE =	1.2605

Percep~HCand2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	.1966968	.0173322	11.35	0.000	.1627224	.2306712
Actual_HCand2	.2609669	.0174525	14.95	0.000	.2267567	.295177
_cons	.3915466	.0497288	7.87	0.000	.2940689	.4890243

Incumbent Candidate, Conservative Respondents, House Democrat

Source	SS	df	MS	Number of obs =	26840
				F(2, 26837) =	387.89
Model	1964.01491	2	982.007453	Prob > F =	0.0000
Residual	67942.0781	26837	2.53165697	R-squared =	0.0281
				Adj R-squared =	0.0280
Total	69906.093	26839	2.60464596	Root MSE =	1.5911

Percep~HCand1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	-.24788	.0136194	-18.20	0.000	-.2745748	-.2211853
Actual_HCand1	.251943	.0114303	22.04	0.000	.229539	.2743471
_cons	-.6628501	.0367001	-18.06	0.000	-.7347843	-.590916

Incumbent Candidate, Liberal Respondents, Senate Republican

Source	SS	df	MS	Number of obs =	12055
				F(2, 12052) =	67.01
Model	226.453507	2	113.226753	Prob > F =	0.0000
Residual	20365.1629	12052	1.68977455	R-squared =	0.0110
				Adj R-squared =	0.0108
Total	20591.6164	12054	1.70828077	Root MSE =	1.2999

Percep~SCand2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	-.1140376	.0159488	-7.15	0.000	-.1452998	-.0827753
Actual_SCand2	.2469788	.0266571	9.27	0.000	.1947266	.299231
_cons	1.262886	.0647711	19.50	0.000	1.135924	1.389848

A6.1 Complete regression output for Table 6-1: Continued

Incumbent Candidate, Liberal Respondents, Senate Democrat

Source	SS	df	MS		
Model	1043.46175	2	521.730877	Number of obs =	21297
Residual	30645.7877	21294	1.43917478	F(2, 21294) =	362.52
				Prob > F =	0.0000
Total	31689.2495	21296	1.48803763	R-squared =	0.0329
				Adj R-squared =	0.0328
				Root MSE =	1.1997

Percep~SCand1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	.1350054	.0113052	11.94	0.000	.1128464	.1571644
Actual_SCand1	.4246578	.0178766	23.75	0.000	.3896183	.4596974
_cons	-.0449347	.0400063	-1.12	0.261	-.1233501	.0334806

Incumbent Candidate, Conservative Respondents, Senate Republican

Source	SS	df	MS		
Model	422.012917	2	211.006459	Number of obs =	17377
Residual	30588.7892	17374	1.76060718	F(2, 17374) =	119.85
				Prob > F =	0.0000
Total	31010.8021	17376	1.78469165	R-squared =	0.0136
				Adj R-squared =	0.0135
				Root MSE =	1.3269

Percep~SCand2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	.1397026	.0141684	9.86	0.000	.1119312	.1674739
Actual_SCand2	.2501915	.0215005	11.64	0.000	.2080484	.2923347
_cons	.4216893	.0533268	7.91	0.000	.3171633	.5262152

Incumbent Candidate, Conservative Respondents, Senate Democrat

Source	SS	df	MS		
Model	2169.66195	2	1084.83098	Number of obs =	25301
Residual	49708.2544	25298	1.96490847	F(2, 25298) =	552.10
				Prob > F =	0.0000
Total	51877.9164	25300	2.05051053	R-squared =	0.0418
				Adj R-squared =	0.0417
				Root MSE =	1.4018

Percep~SCand1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	-.33671	.0125268	-26.88	0.000	-.3612632	-.3121568
Actual_SCand1	.3421733	.0170323	20.09	0.000	.3087889	.3755576
_cons	-.7121325	.0408349	-17.44	0.000	-.7921712	-.6320938

A6.1 Complete regression output for Table 6-1: Continued

Challenger Candidate, Liberal Respondents, House Republican

Source	SS	df	MS	Number of obs =	17426
				F(2, 17423) =	189.49
Model	581.059586	2	290.529793	Prob > F =	0.0000
Residual	26713.8517	17423	1.53325212	R-squared =	0.0213
				Adj R-squared =	0.0212
Total	27294.9113	17425	1.56642246	Root MSE =	1.2382

Percep~HCand2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	-.1341697	.0129455	-10.36	0.000	-.1595442	-.1087951
Actual_HCand2	.2611354	.0158591	16.47	0.000	.23005	.2922208
_cons	1.223219	.0405807	30.14	0.000	1.143677	1.302761

Challenger Candidate, Liberal Respondents, House Democrat

Source	SS	df	MS	Number of obs =	7446
				F(2, 7443) =	49.06
Model	164.386268	2	82.1931339	Prob > F =	0.0000
Residual	12469.8578	7443	1.67538059	R-squared =	0.0130
				Adj R-squared =	0.0127
Total	12634.244	7445	1.69701061	Root MSE =	1.2944

Percep~HCand1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	.2078486	.0210759	9.86	0.000	.1665339	.2491633
Actual_HCand1	.0330862	.0326923	1.01	0.312	-.031	.0971724
_cons	-.3946468	.0750985	-5.26	0.000	-.5418612	-.2474324

Challenger Candidate, Conservative Respondents, House Republican

Source	SS	df	MS	Number of obs =	33014
				F(2, 33011) =	541.32
Model	1464.14576	2	732.072882	Prob > F =	0.0000
Residual	44643.4932	33011	1.35238233	R-squared =	0.0318
				Adj R-squared =	0.0317
Total	46107.639	33013	1.39665099	Root MSE =	1.1629

Percep~HCand2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	.2077806	.0091623	22.68	0.000	.1898222	.225739
Actual_HCand2	.254078	.0110042	23.09	0.000	.2325094	.2756466
_cons	.5249045	.0295387	17.77	0.000	.4670075	.5828014

A6.1 Complete regression output for Table 6-1: Continued

Challenger Candidate, Conservative Respondents, House Democrat

Source	SS	df	MS		
Model	426.506719	2	213.253359	Number of obs =	11015
Residual	22706.5259	11012	2.06198019	F(2, 11012) =	103.42
				Prob > F =	0.0000
Total	23133.0326	11014	2.10032982	R-squared =	0.0184
				Adj R-squared =	0.0183
				Root MSE =	1.436

Percep~HCand1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	-.2843636	.0197759	-14.38	0.000	-.3231278	-.2455994
Actual_HCand1	-.0119388	.0281887	-0.42	0.672	-.0671937	.0433161
_cons	-1.061586	.067739	-15.67	0.000	-1.194366	-.9288051

Challenger Candidate, Liberal Respondents, Senate Republican

Source	SS	df	MS		
Model	547.962744	2	273.981372	Number of obs =	9667
Residual	13523.4753	9664	1.39936624	F(2, 9664) =	195.79
				Prob > F =	0.0000
Total	14071.4381	9666	1.45576641	R-squared =	0.0389
				Adj R-squared =	0.0387
				Root MSE =	1.1829

Percep~SCand2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	-.1475399	.0171222	-8.62	0.000	-.181103	-.1139768
Actual_SCand2	.3758047	.0206883	18.17	0.000	.3352513	.4163581
_cons	1.02441	.0538566	19.02	0.000	.9188392	1.12998

Challenger Candidate, Liberal Respondents, Senate Democrat

Source	SS	df	MS		
Model	292.718041	2	146.359021	Number of obs =	6793
Residual	11240.8592	6790	1.65550209	F(2, 6790) =	88.41
				Prob > F =	0.0000
Total	11533.5772	6792	1.69811207	R-squared =	0.0254
				Adj R-squared =	0.0251
				Root MSE =	1.2867

Percep~SCand1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	.2016225	.0225935	8.92	0.000	.1573321	.2459129
Actual_SCand1	.2834434	.0284676	9.96	0.000	.2276379	.3392489
_cons	-.1116536	.0713611	-1.56	0.118	-.2515437	.0282364

A6.1 Complete regression output for Table 6-1: Continued

Challenger Candidate, Conservative Respondents, Senate Republican

Source	SS	df	MS		
Model	1093.77903	2	546.889515	Number of obs =	16888
Residual	28769.8193	16885	1.70386848	F(2, 16885) =	320.97
				Prob > F =	0.0000
Total	29863.5983	16887	1.76843716	R-squared =	0.0366
				Adj R-squared =	0.0365
				Root MSE =	1.3053

Percep~SCand2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	.0622753	.0148989	4.18	0.000	.0330719	.0914788
Actual_SCand2	.4761612	.0191346	24.88	0.000	.4386553	.5136671
_cons	.2249017	.0495524	4.54	0.000	.1277738	.3220295

Challenger Candidate, Conservative Respondents, Senate Democrat

Source	SS	df	MS		
Model	342.424736	2	171.212368	Number of obs =	9884
Residual	19719.4145	9881	1.99569016	F(2, 9881) =	85.79
				Prob > F =	0.0000
Total	20061.8392	9883	2.02993415	R-squared =	0.0171
				Adj R-squared =	0.0169
				Root MSE =	1.4127

Percep~SCand1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	-.2713199	.0213628	-12.70	0.000	-.3131954	-.2294443
Actual_SCand1	.0960352	.0256756	3.74	0.000	.0457058	.1463645
_cons	-1.105819	.0670562	-16.49	0.000	-1.237263	-.9743755

Open Seat Candidate, Liberal Respondents, House Republican

Source	SS	df	MS		
Model	142.466342	2	71.2331708	Number of obs =	3616
Residual	5909.11082	3613	1.63551365	F(2, 3613) =	43.55
				Prob > F =	0.0000
Total	6051.57716	3615	1.67401858	R-squared =	0.0235
				Adj R-squared =	0.0230
				Root MSE =	1.2789

Percep~HCand2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	-.1148515	.028961	-3.97	0.000	-.171633	-.0580701
Actual_HCand2	.2824295	.0328146	8.61	0.000	.2180924	.3467666
_cons	1.111306	.0934407	11.89	0.000	.9281045	1.294508

A6.1 Complete regression output for Table 6-1: Continued

Open Seat Candidate, Liberal Respondents, House Democrat

Source	SS	df	MS	Number of obs =	4010
				F(2, 4007) =	112.18
Model	355.850363	2	177.925182	Prob > F =	0.0000
Residual	6355.32196	4007	1.58605489	R-squared =	0.0530
				Adj R-squared =	0.0526
Total	6711.17232	4009	1.67402652	Root MSE =	1.2594

Percep~HCand1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	.2210071	.0269706	8.19	0.000	.1681298	.2738844
Actual_HCand1	.4098519	.0340682	12.03	0.000	.3430593	.4766446
_cons	.2945202	.0817233	3.60	0.000	.1342972	.4547433

Open Seat Candidate, Conservative Respondents, House Republican

Source	SS	df	MS	Number of obs =	6605
				F(2, 6602) =	111.76
Model	344.163461	2	172.081731	Prob > F =	0.0000
Residual	10165.4329	6602	1.53975052	R-squared =	0.0327
				Adj R-squared =	0.0325
Total	10509.5964	6604	1.5913986	Root MSE =	1.2409

Percep~HCand2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	.2556666	.0215396	11.87	0.000	.213442	.2978913
Actual_HCand2	.2125422	.02452	8.67	0.000	.164475	.2606093
_cons	.3770532	.0706691	5.34	0.000	.2385189	.5155876

Open Seat Candidate, Conservative Respondents, House Democrat

Source	SS	df	MS	Number of obs =	5583
				F(2, 5580) =	70.47
Model	321.720005	2	160.860002	Prob > F =	0.0000
Residual	12736.6382	5580	2.28255165	R-squared =	0.0246
				Adj R-squared =	0.0243
Total	13058.3582	5582	2.33936908	Root MSE =	1.5108

Percep~HCand1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	-.273151	.0284508	-9.60	0.000	-.3289256	-.2173764
Actual_HCand1	.2433002	.033205	7.33	0.000	.1782055	.3083948
_cons	-.536064	.0868944	-6.17	0.000	-.7064109	-.3657172

A6.1 Complete regression output for Table 6-1: Continued

Open Seat Candidate, Liberal Respondents, Senate Republican

Source	SS	df	MS		
Model	184.623505	2	92.3117524	Number of obs =	6924
Residual	10386.6675	6921	1.50074664	F(2, 6921) =	61.51
				Prob > F =	0.0000
Total	10571.291	6923	1.52698122	R-squared =	0.0175
				Adj R-squared =	0.0172
				Root MSE =	1.225

Percep~SCand2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	-.0590431	.0195756	-3.02	0.003	-.0974174	-.0206689
Actual_SCand2	.2132906	.0199647	10.68	0.000	.1741537	.2524276
_cons	1.57616	.0595862	26.45	0.000	1.459352	1.692967

Open Seat Candidate, Liberal Respondents, Senate Democrat

Source	SS	df	MS		
Model	384.370242	2	192.185121	Number of obs =	6578
Residual	9158.54736	6575	1.39293496	F(2, 6575) =	137.97
				Prob > F =	0.0000
Total	9542.9176	6577	1.45095296	R-squared =	0.0403
				Adj R-squared =	0.0400
				Root MSE =	1.1802

Percep~SCand1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	.1294773	.0195617	6.62	0.000	.09113	.1678246
Actual_SCand1	.4660141	.0310058	15.03	0.000	.4052327	.5267954
_cons	.1972099	.0716063	2.75	0.006	.0568382	.3375816

Open Seat Candidate, Conservative Respondents, Senate Republican

Source	SS	df	MS		
Model	1421.01471	2	710.507353	Number of obs =	11983
Residual	18495.4017	11980	1.54385657	F(2, 11980) =	460.22
				Prob > F =	0.0000
Total	19916.4164	11982	1.66219466	R-squared =	0.0713
				Adj R-squared =	0.0712
				Root MSE =	1.2425

Percep~SCand2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	.1333522	.0156281	8.53	0.000	.1027187	.1639858
Actual_SCand2	.4627023	.016157	28.64	0.000	.431032	.4943727
_cons	.0504272	.0496839	1.01	0.310	-.0469614	.1478158

A6.1 Complete regression output for Table 6-1: Continued

Open Seat Candidate, Conservative Respondents, Senate Democrat

Source	SS	df	MS		
Model	716.596629	2	358.298315	Number of obs =	10505
Residual	19139.8978	10502	1.82250027	F(2, 10502) =	196.60
				Prob > F =	0.0000
Total	19856.4944	10504	1.89037457	R-squared =	0.0361
				Adj R-squared =	0.0359
				Root MSE =	1.35

Percep~SCand1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Own_Ideology	-.289712	.0181651	-15.95	0.000	-.325319	-.2541049
Actual_SCand1	.2980032	.0249608	11.94	0.000	.2490753	.3469311
_cons	-.7926471	.062707	-12.64	0.000	-.9155647	-.6697294

A6.2 Complete regression output for Table 6-2: Regression Summary of Collectively Perceived Congressional Candidate Ideology by Respondent Self-Perception and Candidate Actual Ideology, Controlled for Co-Partisan Relationships, Incumbency Status, and Office (2006-2014 Congressional Elections)

Incumbent Candidate, Liberal Respondents House Republican:

Source	SS	df	MS		
Model	12.253956	2	6.12697799	Number of obs =	905
Residual	240.1359	902	.266226054	F(2, 902) =	23.01
				Prob > F =	0.0000
Total	252.389856	904	.279192319	R-squared =	0.0486
				Adj R-squared =	0.0464
				Root MSE =	.51597

Dist_Perception_by~b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Lib	.1941706	.1065997	1.82	0.069	-.0150417	.4033829
ActualIdeo	.1902748	.0291386	6.53	0.000	.1330875	.2474621
_cons	1.914403	.2128187	9.00	0.000	1.496725	2.33208

Incumbent Candidate, Liberal Respondents House Democrat:

Source	SS	df	MS		
Model	100.32855	2	50.1642749	Number of obs =	936
Residual	255.141452	933	.273463507	F(2, 933) =	183.44
				Prob > F =	0.0000
Total	355.470002	935	.38018182	R-squared =	0.2822
				Adj R-squared =	0.2807
				Root MSE =	.52294

Dist_Perception_by~b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Lib	.4869101	.1159626	4.20	0.000	.2593324	.7144878
ActualIdeo	.4407188	.0252297	17.47	0.000	.3912053	.4902324
_cons	.7806275	.2263133	3.45	0.001	.3364854	1.22477

A6.2 Complete regression output for Table 6-2: Continued

Incumbent Candidate, Conservative Respondents House Republican:

Source	SS	df	MS		
Model	19.7078603	2	9.85393016	Number of obs =	905
Residual	142.019539	902	.1574496	F(2, 902) =	62.58
				Prob > F =	0.0000
Total	161.7274	904	.178901991	R-squared =	0.1219
				Adj R-squared =	0.1199
				Root MSE =	.3968

Dist_Perception_byC~s	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Cons	.5061438	.1105272	4.58	0.000	.2892234	.7230642
ActualIdeo	.2140811	.022636	9.46	0.000	.1696558	.2585064
_cons	-.0527206	.2276882	-0.23	0.817	-.4995809	.3941398

Incumbent Candidate, Conservative Respondents House Democrat:

Source	SS	df	MS		
Model	8.0050039	2	4.00250195	Number of obs =	940
Residual	434.24139	937	.463437983	F(2, 937) =	8.64
				Prob > F =	0.0002
Total	442.246394	939	.470975926	R-squared =	0.0181
				Adj R-squared =	0.0160
				Root MSE =	.68076

Dist_Perception_byC~s	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Cons	-.2101108	.1432944	-1.47	0.143	-.491326	.0711043
ActualIdeo	.1379358	.0333148	4.14	0.000	.0725555	.2033161
_cons	-.8607118	.3109119	-2.77	0.006	-1.470876	-.2505474

Incumbent Candidate, Liberal Respondents Senate Republican:

Source	SS	df	MS		
Model	5.17605941	2	2.5880297	Number of obs =	58
Residual	8.95089042	55	.162743462	F(2, 55) =	15.90
				Prob > F =	0.0000
Total	14.1269498	57	.247841225	R-squared =	0.3664
				Adj R-squared =	0.3434
				Root MSE =	.40341

Dist_Perception_by~b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Lib	-.9303813	.5466982	-1.70	0.094	-2.025989	.1652265
ActualIdeo	.4927732	.0877636	5.61	0.000	.316891	.6686554
_cons	-.7513689	1.134389	-0.66	0.511	-3.024736	1.521998

A6.2 Complete regression output for Table 6-2: Continued

Incumbent Candidate, Liberal Respondents Senate Democrat:

Source	SS	df	MS		
Model	7.28630938	2	3.64315469	Prob > F	0.0000
Residual	6.15862692	65	.094748106	R-squared	0.5419
Total	13.4449363	67	.200670691	Adj R-squared	0.5278
				Root MSE	.30781

Number of obs = 68
F(2, 65) = 38.45

Dist_Perception_by~b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Lib	1.259513	.4512947	2.79	0.007	.3582156	2.160811
ActualIdeo	.5380662	.0753424	7.14	0.000	.3875971	.6885353
_cons	2.390681	.8639207	2.77	0.007	.6653125	4.11605

Incumbent Candidate, Conservative Respondents Senate Republican:

Source	SS	df	MS		
Model	6.99488694	2	3.49744347	Prob > F	0.0001
Residual	17.0283975	55	.309607227	R-squared	0.2912
Total	24.0232844	57	.421461131	Adj R-squared	0.2654
				Root MSE	.55642

Number of obs = 58
F(2, 55) = 11.30

Dist_Perception_byC~s	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Cons	.3230775	.7934725	0.41	0.685	-1.267077	1.913232
ActualIdeo	.5228383	.1121746	4.66	0.000	.2980355	.7476411
_cons	-.4248022	1.65722	-0.26	0.799	-3.745945	2.896341

Incumbent Candidate, Conservative Respondents Senate Democrat:

Source	SS	df	MS		
Model	5.12000594	2	2.56000297	Prob > F	0.0000
Residual	8.55099199	65	.131553723	R-squared	0.3745
Total	13.6709979	67	.204044745	Adj R-squared	0.3553
				Root MSE	.3627

Number of obs = 68
F(2, 65) = 19.46

Dist_Perception_byC~s	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Cons	-.7150902	.4837485	-1.48	0.144	-1.681203	.2510223
ActualIdeo	.5537362	.0889288	6.23	0.000	.3761332	.7313392
_cons	.5886743	1.031677	0.57	0.570	-1.471726	2.649075

A6.2 Complete regression output for Table 6-2: Continued

Challenger Candidate, Liberal Respondents House Republican:

Source	SS	df	MS	Number of obs =	334
				F(2, 331) =	4.26
Model	3.61330425	2	1.80665212	Prob > F =	0.0149
Residual	140.469811	331	.424380092	R-squared =	0.0251
				Adj R-squared =	0.0192
Total	144.083115	333	.432682026	Root MSE =	.65144

Dist_Perception_by~b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Lib	.6407831	.2520852	2.54	0.011	.1448921	1.136674
ActualIdeo	.0816422	.0554066	1.47	0.142	-.0273512	.1906355
_cons	2.913886	.5009268	5.82	0.000	1.928484	3.899287

Challenger Candidate, Liberal Respondents House Democrat:

Source	SS	df	MS	Number of obs =	430
				F(2, 427) =	6.08
Model	3.81839983	2	1.90919991	Prob > F =	0.0025
Residual	134.087565	427	.3140224	R-squared =	0.0277
				Adj R-squared =	0.0231
Total	137.905965	429	.321459125	Root MSE =	.56038

Dist_Perception_by~b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Lib	.6334996	.1871254	3.39	0.001	.2656981	1.001301
ActualIdeo	-.0363322	.0656247	-0.55	0.580	-.1653198	.0926553
_cons	.3164174	.3924293	0.81	0.421	-.4549162	1.087751

Challenger Candidate, Conservative Respondents House Republican:

Source	SS	df	MS	Number of obs =	334
				F(2, 331) =	4.02
Model	1.71847009	2	.859235044	Prob > F =	0.0188
Residual	70.6707735	331	.213506869	R-squared =	0.0237
				Adj R-squared =	0.0178
Total	72.3892436	333	.217385116	Root MSE =	.46207

Dist_Perception_byC~s	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Cons	.2274906	.1864068	1.22	0.223	-.1392008	.5941821
ActualIdeo	.0938542	.039686	2.36	0.019	.0157857	.1719227
_cons	.5735634	.3763821	1.52	0.128	-.1668392	1.313966

A6.2 Complete regression output for Table 6-2: Continued

Challenger Candidate, Conservative Respondents House Democrat:

Source	SS	df	MS		
Model	1.25158759	2	.625793796	Number of obs =	430
Residual	137.31854	427	.321589086	F(2, 427) =	1.95
				Prob > F =	0.1441
Total	138.570127	429	.32300729	R-squared =	0.0090
				Adj R-squared =	0.0044
				Root MSE =	.56709

Dist_Perception_byC~s	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Cons	-.297429	.238487	-1.25	0.213	-.7661836	.1713255
ActualIdeo	-.1055674	.0662782	-1.59	0.112	-.2358396	.0247048
_cons	-1.180461	.4993038	-2.36	0.019	-2.161861	-.1990623

Challenger Candidate, Liberal Respondents Senate Republican:

Source	SS	df	MS		
Model	1.91263395	2	.956316973	Number of obs =	58
Residual	9.37139009	55	.170388911	F(2, 55) =	5.61
				Prob > F =	0.0061
Total	11.284024	57	.197965334	R-squared =	0.1695
				Adj R-squared =	0.1393
				Root MSE =	.41278

Dist_Perception_by~b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Lib	.8564441	.6436146	1.33	0.189	-.4333883	2.146277
ActualIdeo	.2457968	.0845071	2.91	0.005	.0764408	.4151528
_cons	3.082872	1.301029	2.37	0.021	.4755512	5.690193

Challenger Candidate, Liberal Respondents Senate Democrat:

Source	SS	df	MS		
Model	3.86191719	2	1.9309586	Number of obs =	44
Residual	8.20135041	41	.200032937	F(2, 41) =	9.65
				Prob > F =	0.0004
Total	12.0632676	43	.280541107	R-squared =	0.3201
				Adj R-squared =	0.2870
				Root MSE =	.44725

Dist_Perception_by~b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Lib	2.711674	.6717047	4.04	0.000	1.355139	4.068209
ActualIdeo	.1945138	.1109503	1.75	0.087	-.029555	.4185825
_cons	4.684295	1.343338	3.49	0.001	1.971368	7.397222

A6.2 Complete regression output for Table 6-2: Continued

Challenger Candidate, Conservative Respondents Senate Republican:

Source	SS	df	MS	Number of obs =	58
				F(2, 55) =	5.09
Model	1.02833862	2	.514169308	Prob > F =	0.0094
Residual	5.55608973	55	.101019813	R-squared =	0.1562
				Adj R-squared =	0.1255
Total	6.58442835	57	.115516287	Root MSE =	.31784

Dist_Perception_byC~s	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Cons	.2494024	.4589826	0.54	0.589	-.6704193	1.169224
ActualIdeo	.1970549	.0656878	3.00	0.004	.0654137	.3286962
_cons	.3317779	.9154395	0.36	0.718	-1.502804	2.16636

Challenger Candidate, Conservative Respondents Senate Democrat:

Source	SS	df	MS	Number of obs =	44
				F(2, 41) =	0.69
Model	.418667939	2	.209333969	Prob > F =	0.5091
Residual	12.5043838	41	.304984972	R-squared =	0.0324
				Adj R-squared =	-0.0148
Total	12.9230518	43	.300536088	Root MSE =	.55225

Dist_Perception_byC~s	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Cons	1.05651	1.007096	1.05	0.300	-.9773613	3.090382
ActualIdeo	.0303309	.1425013	0.21	0.833	-.2574562	.3181181
_cons	-3.904759	2.175225	-1.80	0.080	-8.297715	.4881959

Open Seat Candidate, Liberal Respondents House Republican:

Source	SS	df	MS	Number of obs =	181
				F(2, 178) =	6.31
Model	3.41682641	2	1.70841321	Prob > F =	0.0022
Residual	48.1583622	178	.270552597	R-squared =	0.0662
				Adj R-squared =	0.0558
Total	51.5751886	180	.286528826	Root MSE =	.52015

Dist_Perception_by~b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Lib	-.0166269	.2681174	-0.06	0.951	-.5457246	.5124709
ActualIdeo	.2082654	.0587688	3.54	0.001	.0922922	.3242385
_cons	1.391067	.5424927	2.56	0.011	.3205223	2.461612

A6.2 Complete regression output for Table 6-2: Continued

Open Seat Candidate, Liberal Respondents House Democrat:

Source	SS	df	MS		
Model	15.8027802	2	7.90139011	Number of obs =	183
Residual	58.2090466	180	.323383592	F(2, 180) =	24.43
				Prob > F =	0.0000
Total	74.0118268	182	.406658389	R-squared =	0.2135
				Adj R-squared =	0.2048
				Root MSE =	.56867

Dist_Perception_by~b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Lib	1.51056	.2615225	5.78	0.000	.9945158	2.026604
ActualIdeo	.2525735	.0781553	3.23	0.001	.098355	.4067921
_cons	2.549581	.510219	5.00	0.000	1.542801	3.55636

Open Seat Candidate, Conservative Respondents House Republican:

Source	SS	df	MS		
Model	4.9856898	2	2.4928449	Number of obs =	181
Residual	22.4123591	178	.12591213	F(2, 178) =	19.80
				Prob > F =	0.0000
Total	27.3980489	180	.152211383	R-squared =	0.1820
				Adj R-squared =	0.1728
				Root MSE =	.35484

Dist_Perception_byC~s	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Cons	.768155	.1991253	3.86	0.000	.3752051	1.161105
ActualIdeo	.1697423	.0406098	4.18	0.000	.0896038	.2498809
_cons	-.6259768	.4033269	-1.55	0.122	-1.421894	.1699408

Open Seat Candidate, Conservative Respondents House Democrat:

Source	SS	df	MS		
Model	1.44178249	2	.720891246	Number of obs =	184
Residual	56.1532776	181	.310239103	F(2, 181) =	2.32
				Prob > F =	0.1008
Total	57.5950601	183	.314727104	R-squared =	0.0250
				Adj R-squared =	0.0143
				Root MSE =	.55699

Dist_Perception_byC~s	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Cons	-.5681605	.2866139	-1.98	0.049	-1.133695	-.0026262
ActualIdeo	.0911633	.076328	1.19	0.234	-.0594438	.2417705
_cons	-.1611591	.6270727	-0.26	0.797	-1.398472	1.076154

A6.2 Complete regression output for Table 6-2: Continued

Open Seat Candidate, Liberal Respondents Senate Republican:

Source	SS	df	MS		
				Number of obs =	181
				F(2, 178) =	6.31
Model	3.41682641	2	1.70841321	Prob > F =	0.0022
Residual	48.1583622	178	.270552597	R-squared =	0.0662
				Adj R-squared =	0.0558
Total	51.5751886	180	.286528826	Root MSE =	.52015

Dist_Perception_by~b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Lib	-.0166269	.2681174	-0.06	0.951	-.5457246	.5124709
ActualIdeo	.2082654	.0587688	3.54	0.001	.0922922	.3242385
_cons	1.391067	.5424927	2.56	0.011	.3205223	2.461612

Open Seat Candidate, Liberal Respondents Senate Democrat:

Source	SS	df	MS		
				Number of obs =	183
				F(2, 180) =	24.43
Model	15.8027802	2	7.90139011	Prob > F =	0.0000
Residual	58.2090466	180	.323383592	R-squared =	0.2135
				Adj R-squared =	0.2048
Total	74.0118268	182	.406658389	Root MSE =	.56867

Dist_Perception_by~b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Lib	1.51056	.2615225	5.78	0.000	.9945158	2.026604
ActualIdeo	.2525735	.0781553	3.23	0.001	.098355	.4067921
_cons	2.549581	.510219	5.00	0.000	1.542801	3.55636

Open Seat Candidate, Conservative Respondents Senate Republican:

Source	SS	df	MS		
				Number of obs =	32
				F(2, 29) =	14.76
Model	1.80030575	2	.900152877	Prob > F =	0.0000
Residual	1.76856006	29	.06098483	R-squared =	0.5044
				Adj R-squared =	0.4703
Total	3.56886582	31	.115124704	Root MSE =	.24695

Dist_Perception_byC~s	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Cons	-.1233949	.4772881	-0.26	0.798	-1.099559	.8527689
ActualIdeo	.3677086	.0730097	5.04	0.000	.2183869	.5170302
_cons	.8105622	.9288468	0.87	0.390	-1.089143	2.710267

A6.2 Complete regression output for Table 6-2: Continued

Open Seat Candidate, Conservative Respondents Senate Democrat:

Source	SS	df	MS		
Model	1.33619977	2	.668099885	Number of obs =	31
Residual	2.93937416	28	.104977649	F(2, 28) =	6.36
				Prob > F =	0.0053
Total	4.27557393	30	.142519131	R-squared =	0.3125
				Adj R-squared =	0.2634
				Root MSE =	.324

Dist_Perception_byC~s	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Dist_OwnIdeology_Cons	1.704531	.7174463	2.38	0.025	.2349089	3.174153
ActualIdeo	.2085831	.0941814	2.21	0.035	.0156612	.4015049
_cons	-4.989777	1.52497	-3.27	0.003	-8.113538	-1.866017

A6.3 Complete regression output for Table 6-3: *Regression Summary of Perceived Congressional Candidate Ideology by District TW Score and Candidate Actual Ideology, Controlled for Co-Partisan Relationships, Incumbency Status, and Office (2006-2014 Congressional Elections)*

Incumbent Candidate, House Republican:

Source	SS	df	MS		
Model	12.4243592	2	6.21217961	Number of obs =	905
Residual	109.048862	902	.120896743	F(2, 902) =	51.38
				Prob > F =	0.0000
Total	121.473221	904	.134373032	R-squared =	0.1023
				Adj R-squared =	0.1003
				Root MSE =	.3477

DistPerc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
StandTW	-.0462127	.0229826	-2.01	0.045	-.0913183	-.0011072
ActualIdeo	.2119163	.0213421	9.93	0.000	.1700302	.2538023
_cons	1.143539	.0405628	28.19	0.000	1.06393	1.223147

Incumbent Candidate, House Democrat:

Source	SS	df	MS		
Model	27.5730341	2	13.786517	Number of obs =	939
Residual	174.977684	936	.18694197	F(2, 936) =	73.75
				Prob > F =	0.0000
Total	202.550718	938	.215938932	R-squared =	0.1361
				Adj R-squared =	0.1343
				Root MSE =	.43237

DistPerc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
StandTW	-.0195037	.0199424	-0.98	0.328	-.0586406	.0196332
ActualIdeo	.2643518	.0269574	9.81	0.000	.2114478	.3172557
_cons	-.7352287	.0491351	-14.96	0.000	-.8316565	-.6388009

Incumbent Candidate, Senate Republican:

Source	SS	df	MS		
Model	5.24270385	2	2.62135192	Number of obs =	58
Residual	10.2096086	55	.185629247	F(2, 55) =	14.12
				Prob > F =	0.0000
Total	15.4523124	57	.2710932	R-squared =	0.3393
				Adj R-squared =	0.3153
				Root MSE =	.43085

DistPerc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
StandTW	.2012122	.1398217	1.44	0.156	-.0789967	.4814211
ActualIdeo	.3601449	.1032189	3.49	0.001	.1532896	.5670002
_cons	.6605714	.1681286	3.93	0.000	.3236341	.9975086

A6.3 Complete regression output for Table 6-3: Continued

Incumbent Candidate, Senate Democrat:

Source	SS	df	MS		
Model	4.04569794	2	2.02284897	Number of obs =	68
Residual	5.71941731	65	.087991036	F(2, 65) =	22.99
				Prob > F =	0.0000
Total	9.76511526	67	.145747989	R-squared =	0.4143
				Adj R-squared =	0.3963
				Root MSE =	.29663

DistPerc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
StandTW	.0712366	.069811	1.02	0.311	-.0681856	.2106589
ActualIdeo	.4197249	.0827737	5.07	0.000	.2544145	.5850353
_cons	-.6216277	.1457408	-4.27	0.000	-.9126922	-.3305631

Challenger Candidate, House Republican:

Source	SS	df	MS		
Model	3.42242986	2	1.71121493	Number of obs =	334
Residual	58.0995126	331	.175527229	F(2, 331) =	9.75
				Prob > F =	0.0001
Total	61.5219425	333	.184750578	R-squared =	0.0556
				Adj R-squared =	0.0499
				Root MSE =	.41896

DistPerc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
StandTW	.0983719	.0274031	3.59	0.000	.0444657	.1522782
ActualIdeo	.0835824	.0356988	2.34	0.020	.0133573	.1538075
_cons	1.241354	.0729693	17.01	0.000	1.097812	1.384896

Challenger Candidate, House Democrat:

Source	SS	df	MS		
Model	2.51982993	2	1.25991497	Number of obs =	430
Residual	89.4582618	427	.209504126	F(2, 427) =	6.01
				Prob > F =	0.0027
Total	91.9780917	429	.214401146	R-squared =	0.0274
				Adj R-squared =	0.0228
				Root MSE =	.45772

DistPerc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
StandTW	.1330715	.0422275	3.15	0.002	.050072	.2160711
ActualIdeo	-.0760469	.0534211	-1.42	0.155	-.181048	.0289543
_cons	-1.371121	.1045293	-13.12	0.000	-1.576577	-1.165665

A6.3 Complete regression output for Table 6-3: Continued

Challenger Candidate, Senate Republican:

Source	SS	df	MS		
Model	1.35278637	2	.676393185	Prob > F	0.0026
Residual	5.58757724	55	.101592313	R-squared	0.1949
Total	6.94036361	57	.121760765	Adj R-squared	0.1656
				Root MSE	.31874

Number of obs = 58
F(2, 55) = 6.66

DistPerc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
StandTW	.1513116	.0658202	2.30	0.025	.0194049	.2832183
ActualIdeo	.1610186	.0656041	2.45	0.017	.029545	.2924923
_cons	1.110927	.1460259	7.61	0.000	.8182846	1.40357

Challenger Candidate, Senate Democrat:

Source	SS	df	MS		
Model	2.48911102	2	1.24455551	Prob > F	0.0024
Residual	7.26279188	41	.177141265	R-squared	0.2552
Total	9.7519029	43	.226788439	Adj R-squared	0.2189
				Root MSE	.42088

Number of obs = 44
F(2, 41) = 7.03

DistPerc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
StandTW	.4691692	.127518	3.68	0.001	.2116413	.7266971
ActualIdeo	-.0322748	.108396	-0.30	0.767	-.2511849	.1866354
_cons	-1.616844	.2212343	-7.31	0.000	-2.063635	-1.170052

Open Seat Candidate, House Republican:

Source	SS	df	MS		
Model	2.5609835	2	1.28049175	Prob > F	0.0000
Residual	20.7879906	178	.116786464	R-squared	0.1097
Total	23.3489741	180	.129716523	Adj R-squared	0.0997
				Root MSE	.34174

Number of obs = 181
F(2, 178) = 10.96

DistPerc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
StandTW	.0169967	.0387064	0.44	0.661	-.0593858	.0933792
ActualIdeo	.1716681	.0421456	4.07	0.000	.0884987	.2548374
_cons	1.087694	.0880752	12.35	0.000	.9138877	1.2615

A6.3 Complete regression output for Table 6-3: Continued

Open Seat Candidate, House Democrat:

Source	SS	df	MS		
Model	1.73257204	2	.866286018	Number of obs =	183
Residual	33.8032967	180	.187796093	F(2, 180) =	4.61
				Prob > F =	0.0111
Total	35.5358688	182	.195252026	R-squared =	0.0488
				Adj R-squared =	0.0382
				Root MSE =	.43335

DistPerc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
StandTW	.1082612	.0405138	2.67	0.008	.028318	.1882043
ActualIdeo	.0073388	.0659678	0.11	0.912	-.1228308	.1375085
_cons	-1.115707	.1238856	-9.01	0.000	-1.360162	-.8712523

Open Seat Candidate, Senate Republican:

Source	SS	df	MS		
Model	1.06077423	2	.530387115	Number of obs =	32
Residual	1.09523251	29	.037766638	F(2, 29) =	14.04
				Prob > F =	0.0001
Total	2.15600674	31	.069548605	R-squared =	0.4920
				Adj R-squared =	0.4570
				Root MSE =	.19434

DistPerc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
StandTW	-.0947243	.0706857	-1.34	0.191	-.2392927	.0498441
ActualIdeo	.300887	.0578108	5.20	0.000	.1826506	.4191234
_cons	.9527084	.1171846	8.13	0.000	.713039	1.192378

Open Seat Candidate, Senate Democrat:

Source	SS	df	MS		
Model	1.09112253	2	.545561267	Number of obs =	31
Residual	2.21334438	28	.079048013	F(2, 28) =	6.90
				Prob > F =	0.0037
Total	3.30446691	30	.110148897	R-squared =	0.3302
				Adj R-squared =	0.2824
				Root MSE =	.28115

DistPerc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
StandTW	.1659027	.0932301	1.78	0.086	-.0250704	.3568758
ActualIdeo	.2068274	.0863993	2.39	0.024	.0298465	.3838083
_cons	-1.033009	.1761801	-5.86	0.000	-1.393898	-.6721206

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