MULTIDIMENSIONAL DEMOCRACY: THE SUPPLY AND DEMAND OF POLITICAL REPRESENTATION

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ABSTRACT

(Under the direction of Thomas M. Carsey)

Research on representation in American politics typically examines the concept through only one of four dimensions: policy, service, allocation, or descriptive. Although scholars collectively provide a comprehensive view of representation, its multidimensional nature implies that any analysis of one dimension that does not account for the others is missing key elements of the process. Furthermore, most research focuses on the behavior of legislators. Less is known about the determinants of citizens’ preferences. I unify the dimensions of representation in a theoretical model that accounts for both citizen demand and legislators’ priorities (i.e., supply). I test this theory with three sources of original data: (1) survey experiments administered to a sample of American adults, (2) survey experiments administered to state legislators, and (3) a new archive of state legislators’ websites.

On the demand side, I posit that citizens’ expectations about government’s role in their lives drive preferences for representation. Using survey experiments from a nationally-representative sample, I provide empirical support by demonstrating that characteristics such as economic factors, ideology, and gender and race correspond as predicted with preferences for the four dimensions of representation and two role orientations. Next I turn to the supply of representation. I expect that, given the constraints of resources and costs, legislators systematically emphasize some dimensions over others to further the goal of reelection. Results from the survey experiments and legislator website data provide support; factors that alter resources, costs, and benefits—legislative institutions, district demand, and individual traits—structure legislators’ strategic representational priorities.
A critical finding in this research is evidence of a connection between demand for and supply of the dimensions of representation. For example, I find that disadvantaged constituents (e.g., the poor and racial minorities) prefer “district-centric” types of representation such as service and allocation, while the wealthy and whites prefer policy-based representation. Then I show evidence that legislators in relatively poor districts and/or those with large black populations emphasize service and allocation while legislators in wealthy and/or predominantly white districts focus more on policy. I conclude by discussing how this seemingly beneficial connection may ultimately contribute to inequality in American political representation.
For Melissa
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1 INTRODUCTION

The fundamental element of a democratic society is the concept of representation. To govern themselves, citizens must choose among their peers someone to stand for them when decisions are made. While this appears simple in principle, scholars have long debated many questions surrounding the concept, including the manners in which representation can take place, the best way to evaluate whether representation is strong or weak, and even whether it is reasonable to expect that all citizens should be represented in government. This has resulted in a myriad of perspectives on exactly what it means for a political leader to represent the people. One way to understand this debate is to claim that representation is so complex a concept that nearly any definition is plausible. On the other hand, it is also possible simply to focus narrowly on one definition, disregarding all others.

In my view, neither of these strategies is satisfying. A proper understanding of the concept should be sufficiently general to account for important complexity, yet not so broad that nearly anything could be included in its definition. This dissertation is my attempt at such a compromise. In one sense I focus quite narrowly, looking only at representation in the context of American politics, ignoring the many other ways in which people govern themselves in other countries. However, within the American context I also account for more intricacy than is common in most scholarship. Indeed, I bring together several unique dimensions of the concept to reflect the complementary facts that citizens have diverse preferences over what political leaders should be doing in office and that representatives themselves see the job as complex and multifaceted.
1.1 Representation in American Politics

To this point, scholars in American politics have typically focused on mass-elite “policy congruence” as the key measure of representation. This term signifies a responsiveness on the part of political leaders to citizens’ policy concerns, such as the extent to which legislators’ individual voting behavior or bills passed by the legislature match the policy preferences of constituents. One critical finding from this literature is the presence of inequality in representation—that the policy views of some advantaged groups of constituents are better represented than those of disadvantaged groups (e.g., Jacobs and Page 2005; Gilens 2005; Bartels 2008; Griffin and Newman 2008).

However, defining representation solely through elite responsiveness to mass policy preferences leads to two key questions: do all constituents want their representatives to provide policy-based representation? Moreover, do all legislators choose to emphasize responsiveness to policy when carrying out their work? I show here that the answer is “no” to both of those questions. First, I demonstrate that constituents hold systematic preferences for several dimensions of representation. Second, I show that many factors, including demand from constituents, can lead legislators to focus more or less on each of those different dimensions.

Most importantly, I ultimately conclude that the nature of citizen preferences for representation incentivizes legislators to respond to the policy concerns of only some segments of their constituencies. Furthermore, I show evidence that legislators are influenced by this incentive, providing non-policy types of representation in response to citizen preferences. Thus, a crucial element of the explanation for representational inequality may come from perhaps the most basic definition of representation: political leaders providing constituents with what they want.
1.1.1 Theoretical Contribution

More specifically, I focus on the following four main dimensions of representation in this dissertation.

- **Policy**: Responding to district policy concerns through position-taking, bill introductions, or voting behavior in the legislature.
- **Service**: Assisting constituents who need help with government agencies.
- **Allocation**: Securing government funding for projects in the district.
- **Descriptive**: A connection through shared identity traits like gender or race.

In examining these dimensions, I develop and test a supply and demand theory of representation. I claim that both demand for and supply of representation are systematic processes influenced by several different factors.

First, I contend that how citizens think government should be involved in their lives drives preferences for these different dimensions. Constituents who see government’s central role as that of a policymaking body seek the potential long-term benefits of policy representation. Others who view government as a service-provider emphasize the tangible, short-term benefits that come from “district-centric” types of representation: constituent service or the allocation of funding to the district. Finally, those who envision government as a symbolic depiction of the constituency prioritize a legislator with shared identity traits like gender or race (i.e., descriptive representation). Moreover, I show that this same role-of-government thesis extends to preferences for the process of representation. Beyond demand for those four dimensions, I examine preferences for legislator role orientations within the policy and allocation dimensions.

On the supply side, I show that legislators do not focus on the dimensions randomly. Instead, given constraints from resources and costs, legislators choose representational priorities based on the perceived electoral benefits of each type. Resources, costs, and benefits
can be affected by many different factors, including the institutional makeup of a legislature, demand for representation from the constituency, and even individual characteristics of each legislator.

Empirical support for my theoretical framework comes from three sources of original data. To examine citizen demand, I utilize survey experiments that presented a sample of Americans with hypothetical election information and e-mail conversations between a constituent and legislator. I manipulated the message content to emphasize the dimensions of representation described above. Next, I use two survey experiments administered to 1,175 American state legislators in which I manipulated the content of a hypothetical e-mail message from a constituent to emphasize the various dimensions of representation. Finally, I analyze data coded from 510 state legislators’ websites. As described in the pages to follow, research assistants coded the front page and subpages of each site as they appeared in 2011-2012 for content on policy, service, allocation, and descriptive representation. I attribute differences in website content to variation in legislators’ representational priorities.

This dissertation addresses two critical problems in the study of representation. First, while past scholars have called for expansion beyond the policy dimension, most efforts of doing so focus narrowly on only one. This is problematic because legislators do not provide these dimensions in isolation—they must choose how to divide finite resources to carry out the different elements of the job. Additionally, my focus on both citizen demand for and legislator supply of representation addresses a second problem: the disproportionate amount of work that looks only at the perspective of elites. Looking only at the supply of representation mischaracterizes it as unidirectional, which contrasts with Pitkin’s (1967) depiction of a two-way relationship. Most importantly, examining both sides of the relationship yields some of the first evidence that constituent preferences and legislators’ subsequent response to those preferences may play a role in facilitating inequality in American political representation.
1.2 Multidimensional Representation in Practice

At the outset of this research, I conducted interviews of 10 American state legislators in seven different states (Alabama, Delaware, Illinois, North Carolina, Nebraska, Nevada, and Washington) to learn the perspectives of those who actually carry out representation as part of their jobs. These interactions provide a helpful starting point for understanding why the additional complexity of several dimensions of representation are central to my theoretical framework and empirical tests. In particular, I asked legislators open-ended questions about what representation meant to them. Most of their responses began in very ambiguous terms, at which point I prompted them to talk about responsiveness to policy, service, and allocation concerns in their districts.¹

My first impression from these interviews was a disconnect between how political scientists and legislators view representation. Specifically, political scientists tend to place much more weight on responsiveness to policy than practitioners do. In some cases legislators have very little knowledge about constituent policy preferences because their primary contact with people in their districts comes with service requests. These legislators said their primary means of making policy decisions came from staff research, discussions with colleagues, and information from interest groups. Other legislators considered their districts to be quite knowledgeable, but said their own personal preferences so rarely conflicted with district preferences that taking the time to understand opinion was not worth the effort. This is not to say that the legislators I spoke to are disinterested in policy responsiveness, but rather that it was simply one of many parts of the job.

I also asked legislators about the “district-centric” aspects of their job, such as constituent service and bringing funding home to the district. I learned that service requests are almost always handled by staff, though everyone I interviewed could remember several examples of recent service requests in detail. Several legislators mentioned that service was

¹Due to the sensitive nature of the topic, I did not ask about descriptive representation.
a good way to connect with constituents and show them that someone in government was looking out for them. However, they also expressed frustration about the lack of publicity that constituent service produces. One legislator mentioned that all the goodwill he built up in certain areas of his district through years of service work was dissolved over one contentious vote on a bill he made that got picked up by news media. Others try to actively solve that problem by promoting casework success when talking with other constituents. As one legislator put it, “you help someone because it’s the right thing to do, but hopefully they tell eight of their friends.”

When talking about allocation, several legislators acknowledged that, in principle, bringing home funding is an excellent means of gaining support from constituents. However, institutional roadblocks often prevent it from happening. Legislators in the minority party of their respective states said there was minimal chance that they could secure funding specifically for their districts. One even told me she was uncomfortable with the “backroom deals” that are usually required to secure funding, saying that the legislature’s ability to divide money unequally across districts facilitates corruption. Nonetheless, others saw allocation as an important element of building trust in the district. One legislator mentioned that he tries to communicate examples of where government funding is benefiting the district because it shows that he and his colleagues “are doing something useful in [the state capital].”

Overall, I took three points away from these interviews. The first was reassurance of face validity. The people I spoke to were not surprised or confused to hear me talk about policy, service, and allocation as different parts of their jobs. While there was variation in how much they thought about these different dimensions, each one could reasonably be considered an element of representation. Second, I got the impression that these dimensions signify different views on what role government should play in the lives of the governed. Legislators who claimed to represent engaged, knowledgeable districts told me
they spent a lot of time talking about policy issues with constituents. In contrast, legislators who had more to say about constituent service seemed to embrace the role of being a provider for the people. Finally, I saw examples of a strategic element in the provision of representation. Frustration over receiving no credit for service work and communicating service or allocation successes indicated to me that legislators are aware of the different dimensions of representation and how they might use those dimensions to generate support.

In the pages that follow, I describe and test my supply and demand theory, which reflects the intuition that I developed over the course of these interviews.

1.3 Overview of the Dissertation

The remainder of the dissertation proceeds as follows. In chapter 2 I review the voluminous literature on representation, touching briefly on work from normative theory but focusing predominantly on empirical research in American politics. Chapter 3 details my supply and demand theory of representation. Chapters 4–6 comprise the three empirical tests of my theory. I begin by testing my expectations on citizen demand for representation in chapter 4, then test my supply-side expectations in chapters 5 and 6. Chapter 7 contains my conclusions on the implications of the results for political scientists’ understanding of representation and for the normative question of who wins and loses with regard to representation in American politics.

1.3.1 Human Subjects Research and Funding

The interviews described above and research presented in chapters 4 and 5 were approved by the Institutional Review Board (IRB) at the University of North Carolina at Chapel Hill (studies #10-0518, #10-1827, and #10-2113). This research was funded by a Thomas F. Ferdinand Summer Research Fellowship from The Graduate School at UNC-Chapel Hill (2010), a Thomas M. Uhlman Summer Research Fellowship from the Department of Political Science at UNC-Chapel Hill (2011), and National Science Foundation Doctoral Dissertation Improvement Grant #SES-1119697 (2011-2012).
2 THE DIMENSIONS OF REPRESENTATION

2.1 Introduction

Representation is one of the most widely studied concepts in political science and covering all of the literature would go beyond the scope of this dissertation. Accordingly, in this chapter I highlight some of the most important works in the context of my research, including a brief look at literature on representation from normative theory and a larger focus on empirical work in American politics. The most critical points to take from all of this work are (1) that representation is a complex concept that has been divided and categorized by scholars in many different ways and (2) that representation is a relationship between political leaders and the mass public.

2.1.1 Normative Theory

Representation is commonly viewed as a “trustee versus delegate” problem for the representative; it is a trade-off between acting in his or her own view of the best interest of the constituency or nation or by precisely following the demands of the constituency. In historical context, the former position is often attributed to Edmund Burke, who, upon election to the British Parliament, declared to his constituents “[y]our representative owes you, not his industry only, but his judgment; and he betrays, instead of serving you, if he sacrifices it to your opinion” (Burke 1774, 446). The latter is commonly associated with the anti-Federalist movement during the 1780s, which viewed the representative’s responsibility as promoting the constituency’s interest as defined by the constituency.

In a seminal work on the topic, Pitkin (1967) highlights the ambiguous and multifaceted nature of representation, ultimately concluding that it is an activity conducted by both the
representative and the represented.\textsuperscript{1} In other words, the relationship is one of equivalence, in which both sides hold some autonomy; representation is not forcing decisions on the constituency, but rather “promoting the interest of the represented, in a context where the latter is conceived as capable of action and judgment, but in such a way that he does not object to what is done in his name” (Pitkin 1967, 155). Thus, representation is a two-way flow. One side does not simply act while the other stays constant, but rather both respond to each other.

More recent scholarship views representation as more than a simple dichotomy. For instance, Mansbridge (2003) divides the concept into four types: “promissory,” “anticipatory,” “gyroscopic,” and “surrogate.”\textsuperscript{2} Through this, she adds more detail to the concept, identifying “the underlying power relation in each form, the role of deliberation in each, and the normative criteria appropriate to each” (Mansbridge 2003, 515).

Two important points come from this literature with respect to my research. First, the idea that representation is multifaceted is critical for my basis of moving beyond solely looking at one type of representation to include four dimensions of the concept. Second, Pitkin’s notion of representation as a two-way relationship is underappreciated by most scholarship. As I discuss more in the coming chapters, most studies assume preferences for representation are constant across constituencies, focusing disproportionately on legislators’ perspectives.

\textsuperscript{1}Pitkin’s work establishes what theorists consider the “standard account” of political representation. Rehfeld (2006, 3) notes that since that time, several scholars have largely added to it as opposed to challenged it. For instance, Phillips (1995) and Williams (1998) addressed the inclusion of groups in the representative process. Others have addressed accountability and deliberation (Amy 1993; James 2004). Mansbridge (2003) and Rehfeld (2005, 2006, 2009) offer critiques of this work and expand its conceptualization.

\textsuperscript{2}Promissory representation—which fits within the trustee/delegate framework—is a contract between the representative, who makes promises during the campaign, and the constituents, who observe whether the promises are kept and hold the representative accountable. Anticipatory representation comes from the theory of rational expectations, in which the representative looks ahead to what the constituency will want in the next election rather than to what he or she has promised in the past. Next, gyroscopic representation involves the representative using his or her own background experience and “common sense” as a guide in decision making. Finally, surrogate representation refers to representation of interests outside of the representative’s district.
2.2 Representation in American Politics

This dissertation builds primarily from empirical studies of representation in American politics. As Eulau and Karps (1977) note, this work exhibits a clear bias toward policy-based representation, though there is also a considerable amount of research on the other aspects. I review key findings from each literature below.

2.2.1 Policy Congruence

Scholarship on policy congruence, or the connection between constituent policy opinion and legislator behavior, dates back at least to the work of Haynes (1900), who provides a detailed descriptive account of legislative processes in the states, and later continues with more description at both the state and national levels. Early analyses of representation look predominantly at state legislatures, though some analysis of the U.S. Congress also appears from this time. These studies commonly focus on one or two states, and most rely on a small subset of salient votes in the legislature as a measure of legislator behavior. Findings comport well with evidence from more recent scholarship: party and constituency both play a role in driving the behavior of legislators at roll call. For example, these early scholars find that partisanship provides the most structure, but legislators are willing to vote against the party if their constituents clearly prefer an alternative. Another consistent finding is that the dominance of a single party can lead to greater weight being placed on constituents or subgroups within the constituency (Key 1949; Patterson 1962).

Other issues became important to scholars after these state-level studies, such as the measurement of district preferences. The early works use a variety of demographic proxy measures, such as the percentage of home ownership or percentage rural in a district. These are not ideal, but at the time were the best available measures. Miller and Stokes (1963) made a considerable advancement on this front through the use of the American National

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3See Beard and Lewis (1932), Fairlie (1940a), and Fairlie (1940b).
4For example, see Key (1949), Turner (1951), MacRae (1952), Dye (1961), Jones (1961), Patterson (1961), Wahlke, Eulau, Buchanan, and Ferguson (1962), or Patterson (1962).
Election Studies (ANES) data, disaggregated to the U.S. House district level. This produced measures taken from actual citizen responses, but the small district sample sizes in those data are a major shortcoming (Erikson 1978). They find that responsiveness to policy opinions is issue-dependent. House members tend to split into liberal Democrats and conservative Republicans on social issues, but on civil rights, voting is more strongly in line with constituency preferences. They also find that neither model holds well in the area of foreign affairs and that constituents’ knowledge of their representatives and their voting behavior is quite low.

Several studies emerged in response to Miller and Stokes (1963). Many of these try to further identify the causal pathways of constituent-legislator linkages, including elaboration of the point that legislators are responding to their own perceptions of constituency opinion.\(^5\) Several studies also aim to improve measurement and other methodological issues. For instance, the use of referendum outcomes as a measure of constituent preference appears in several subsequent articles.\(^6\) In addition, scholars point to methodological problems, such as the use of correlational measures to assess representation.\(^7\) Other works focus on identifying the factors that contribute to whether representation as policy congruence is stronger or weaker, such as electoral competition (Erikson and Wright 1980; Wright and Berkman 1986; Groseclose 2001; Griffin 2006), informal groups in the legislature (Stevens, Mulhollan, and Rundquist 1981), issues (Powell 1982; Page and Shapiro 1992), and constituency characteristics such as district heterogeneity and population size (Bullock and Brady 1983; Hibbing and Alford 1990).

One major advancement from this time was the increased attention to the location of representation. Though already established in the theory literature (e.g., Pitkin 1967), a

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\(^5\)See, for example, Cnudde and McCrone (1966), Hedlund and Friesema (1972), Erikson, Luttbeg, and Holloway (1975), or Uslaner and Weber (1979).


\(^7\)Examples include Fiorina (1975), Achen (1977), Erikson (1978), Achen (1978), and McCrone and Stone (1986).
key development comes from Weissberg (1978), who addresses the distinction between collective and individual (or “dyadic”) representation and finds that representation may be stronger when viewed as a legislature-level phenomenon than a legislator-level phenomenon (see also Hurley 1982; Herrera, Herrera, and Smith 1992). In this view, if a citizen’s preferences are represented by any member of the legislature, that citizen is “represented” (but see Hurley 1982).

Later work also conceives of representation at the system-level, but examines it as dynamic congruence between national opinion, or “public mood” (Stimson 1991) and system outputs. Most of these studies find strong evidence of policy responsiveness operating at this level, but draw distinctions between responsiveness to specific issue preferences and responsiveness to general preferences for the role of government. In particular, the work of Erikson, MacKuen, and Stimson (2002) links the individual-level (micro) behavior of citizens and legislators to the system-level (macro) outputs. Through the economic theory of “rational expectations,” the authors demonstrate that citizens in the aggregate take all information into account to forecast the future. Building from work on the public acting as a “thermostat,” preferring liberal policy as government becomes conservative and vice versa (Wlezien 1995), they show that elected officials must anticipate these preferences and change policy accordingly. Thus, representation is a constantly changing feedback process.

A significant portion of more recent work still looks at providing nuance to the policy congruence framework. For instance, Bartels (1991) examines the policy consequences of representation and finds that following constituency opinion in the U.S. House increased defense spending considerably in the 1980s. Snyder (1996) looks at the dimensions of constituency preference, Hill and Hurley (1999) examine the conditions under which elites respond to the masses and vice versa. Maestas (2000, 2003) shows that ambition for higher office affects aggregate patterns of representation and legislators’ efforts to learn

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8See, for example, Wlezien (1996), Erikson, MacKuen, and Stimson (2002), or Wlezien (2004).
constituent preferences. Canes-Wrone, Brady, and Cogan (2002) and Hogan (2008) address the electoral consequences of weak policy congruence and Kousser, Lewis, and Mas- ket (2007) show that legislators’ have incentives to “adapt” to perceived changes in the ideological views of the electorate. A growing literature also examines how the effect of the constituency mean on legislator behavior is conditioned by variance in district opinion.9 Finally, several studies examine how the constituency fits in with other factors that drive legislative voting behavior, such as partisanship or legislators’ own preferences (Levitt 1996; Ansolabehere, Snyder, and Stewart 2001).

In short, decades of research establish that responding to policy concerns is an important component of representation. However, the extent to which it becomes more or less important relative to other dimensions for citizens and for legislators is less clear, because this work focuses narrowly on policy-based representation, with little or no attention to the other dimensions.

2.2.2 Constituent Service

Additional research shows that another important aspect of representation is the ability to listen to and address concerns from the constituency. Scholars find that variation in the amount of communication between the two is dependent on factors such as constituency size, communication medium, and cues from the constituency.10 This work commonly distinguishes between the “normal vote,” which is the electoral support a legislator can expect to receive due to shared partisanship with a segment of the district, and the “personal vote,” or “that portion of a candidate’s electoral support which originates in his or her personal qualities, qualifications, activities, and record” (Cain, Ferejohn, and Fiorina 1987, 9). While several studies demonstrate that the personal vote can be a critical part of legislators’ chances of getting reelected and serves as a source of the incumbency advantage, evidence

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10See, for example, Oppenheimer (1996), Adler, Gent, and Overmeyer (1998), Butler and Broockman (2011), Butler, Karpowitz, and Pope (2012), or Dropp and Peskowitz (2012).
is somewhat mixed as to whether service alone contributes to that benefit, at least at the Congressional level (cf. Johannes 1984; Cain, Ferejohn, and Fiorina 1987).

Results are more clear at the state legislative level. Freeman and Richardson (1996) demonstrate that a number of factors influence the time state legislators spend on casework, including their own views of the importance of casework (a positive relationship), their views on its electoral benefit (positive), their opinion on limiting government spending (negative), and serving in a multimember district (positive). Serra and Pinney (2004) find evidence of electoral benefits to casework; service responsiveness corresponds to an increase in the probability of a constituent voting for the legislator and weakens the impact of issue positions on vote choice (see also Serra and Moon 1994). Thus, representation through service contributes to the development of a unique “homestyle” that allows for the development of trust in the district (Fenno 1978). However, as I discuss below, the high cost of helping individuals one-by-one leads to the question of whether service is worthwhile compared to the other dimensions of representation.

2.2.3 Allocation Representation

Along with service, allocation is another district-centric form of representation that scholars show can be beneficial to legislators. As Weingast (1979, 250) notes, “the representative seeks to be returned to office and his electoral fortunes are related to the benefits he brings home to his district” (see also Stein and Bickers 1995). Much of this work categorizes allocation as a part of the personal vote, similar to constituent service (e.g., Desposato and Petrocik 2003). However, it is conceptually distinct from service because it provides benefits to the whole district, rather than just one constituent.

Recent work makes the case that legislators have clear electoral incentive to bring funding home. For example, Gamm and Kousser (2010) find that many bills in state legislatures are particularized in focus, aimed at benefiting individual districts rather than the state as a whole. Grimmer (2012) shows that representatives in districts with many of the other
party’s partisans focus less on policy issues, and instead on claiming credit for appropriations secured for the district. Using 2008 data from U.S. House Appropriations, Lazarus (2010) finds that the number of earmarks and dollar amounts of distributive spending that representatives procure are positively related to demand-side factors, such as district ideology, unemployment, and size. However, he also finds that majority party status, seniority in the legislature, party leadership, and committee membership are also important. Thus, providing allocation as a form of representation is not costless, as many institutional factors could stand in the way of a legislator bringing funding home to the district.

2.2.4 Descriptive Representation

Scholarship indicates that gender and race play an important role through descriptive representation and in affecting provision of the other dimensions. This literature generally examines how electoral institutions translate into descriptive representation as well as its implications for the policy process, constituent behavior, connections between constituents and elites, and other political outcomes.

A logical starting point is work on the role of electoral institutions. Scholarship shows that minority groups have differing levels of success in gaining representation in government in part due to the manner in which officials are chosen. For instance, at-large district elections tend to adversely affect minority groups’ ability to gain representation (Karnig and Welch 1980; Welch 1990, but see Bullock and MacManus 1987). Additional work examines the role of multimember districts, finding that, with some caveats, increased district magnitude provides more opportunities for minority candidates to win election. This seems to be preferable to the more contentious majority-minority district approach (e.g., Cameron, Epstein, and O’Hallora 1996).

The descriptive representation literature is one of the few places where multiple dimensions are combined. Additional work looks at descriptive representation through its

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effects on policy. For instance, Meier and England (1984, see also Meier, Juenke, Wrinkle, and Polinard 2005) find a positive association between black membership on local school boards and equitable education policy. However, at higher levels (e.g., Congress) most studies find mixed evidence for whether there is an effect of race, ethnicity, or gender for the on the voting patterns of legislators (cf. Vega and Firestone 1995; Hero and Tolbert 1995; Kerr and Miller 1997). In more recent work, Preuhs (2006) claims that the lack of clear findings beyond local government are due to model underspecification issues. He then shows that, within the context of state welfare policy, African-American descriptive representation exerts influence over policy, but that influence is conditioned by the partisan control and the racial political context in the states (see also Preuhs 2007).

Finally, other scholars point to the symbolic importance of descriptive representation.\textsuperscript{12} Women, for instance, tend to feel more “gender conscious” with regard to representation (Rosenthal 1995; Arceneaux 2001) Furthermore, being represented by someone who is similar instills feelings of efficacy and trust (Tate 2001; Lawless 2004). In certain cases, this can be strong enough to affect the connections between legislators and members of the group they represent or the political involvement of that subgroup.\textsuperscript{13}

Past work also indicates that gender and race influence the other dimensions of representation. For example, women legislators take on roles as “problem-solvers” who emphasize community obligations and improving quality of life, while men are “advertisers” and “leaders” (e.g., Thomas 1994; Swers 2002). Building from research on gender role socialization, Richardson and Freeman (1995) find that women state legislators receive more casework requests and perform more service than male colleagues. Scholars also find that

\textsuperscript{12}For example, see Perkins and Fowlkes (1980), Reingold (1992), Schwindt-Bayer and Mishler (2005), and Bishin (2009).

\textsuperscript{13}See, for example, Gay (2002), Dovi (2002), or Griffin and Keane (2006).
African-American elites bring a district-centric focus to the office, prioritizing local problems that African-Americans typically face. Thomas (1992, 1994), for instance, demonstrates that women and African-American city council members are both more focused on service than their male and white counterparts. Similarly, Grose (2011) shows that African-American legislators focus on directing allocation funding to African-American constituents (see also Tate 2003).

2.2.5 Citizen Preferences

There is also a smaller literature on preferences for representation. This work demonstrates that there is variation in what citizens expect from legislators, but findings from study to study are not consistent (cf. Krasno 1994; Griffin and Flavin 2011; Barker and Carman 2012). For instance, Cain, Ferejohn, and Fiorina (1987) find that most constituents want their members of Congress to “keep in touch” on national issues, while Grant and Rudolph (2004) show that the most common expectation is that they will “work on local issues.” Similarly, as Box-Steffensmeier, Kimball, and Meinke (2003) show, shared race and gender with a representative can have differing effects on different measures of citizen preferences.

Existing work explaining this variation in representational demand largely focuses on the preferences of particular groups of constituents rather than developing a more general account. Tate (2003) finds that African-Americans place high demand on a legislator who brings funding back to the district (see also Grose 2011). Similarly, Griffin and Flavin (2007) find that African-Americans are less inclined to sanction legislators for weak policy responsiveness. Griffin and Flavin (2011) find that low income citizens are less concerned with policy than the wealthy. In short, scholars make clear that not all constituents want the same type of representation. However, there is no clear theoretical framework in place that provides an explanation for these preferences.
2.3 Uniting Four Literatures

Overall, this work shows that each of the dimensions are important to legislators in providing representation to constituents. However, little is known about the circumstances that change the relative importance of each dimension on either the supply or demand sides. Past work has not typically incorporated all four in the same model. This is a problem because legislators with limited time and energy are not able to provide all four types of representation at a maximum level, but instead must make choices between them. As Fenno notes: “[b]uilding a reelection constituency at home…requires time and energy. Inevitably, these are resources that might otherwise be [given to policy-related] efforts” (1978, 215, see also Hogan N.d.). Studies of only one dimension miss this crucial complexity inherent in the practice of representation.

In the chapters that follow I address this problem by developing a more comprehensive theoretical model accounting for citizen preferences and legislators’ choices between these four dimensions. I then derive several hypotheses based on this unified theory and test them with data from survey experiments administered to citizens, survey experiments administered to American state legislators, and data from state legislators’ websites. Overall, I demonstrate that beyond simply structuring policy preferences, expectations on the role of government influence citizen preferences for how legislators should provide representation. Further, I show that the choice of how to prioritize the dimensions of representation reflects strategic considerations by legislators.
3 A SUPPLY AND DEMAND THEORY OF REPRESENTATION

3.1 Introduction

Eulau and Karps (1977) were some of the first to make the point that scholars too often conceptualize representation exclusively as responsiveness to policy. Since the time of their work literature has developed on the four dimensions of the concept that are the focus of this dissertation.¹

- **Policy**: Responding to district policy concerns through position-taking, bill introductions, or voting behavior in the legislature.
- **Service**: Assisting constituents who need help with government agencies.
- **Allocation**: Securing government funding for projects in the district.
- **Descriptive**: A connection through shared identity traits like gender or race.

However, as is shown in chapter 2, extant literature has typically focused narrowly on only one of these dimensions rather than looking comprehensively at all of them. The result is several relatively separate literatures rather than a single, integrated body of research on representation. The need for work connecting these different dimensions is apparent from two different observations.

The first is that legislators see their jobs as being comprised of multiple elements. The interviews I described in chapter 1 provide anecdotal evidence consistent with this assertion. More generally, it is also supported by the fact that American legislators typically win re-election despite several factors that obstruct the basic policy congruence relationship. These obstacles include low levels of constituent knowledge and awareness (Griffin

¹I focus on dyadic (individual) rather than collective representation (e.g., Weissberg 1978) because service and allocation are primarily individual means of providing representation.
and Flavin 2007), interest groups and bureaucracy (Lowi 1979), pressure from the party or legislators’ own preferences (Mayhew 1974), institutional factors (Lax and Phillips 2012), variance in electoral competition (Fiorina 1974; Griffin 2006), or constituency traits like opinion heterogeneity (Bailey and Brady 1998). To compensate for these obstacles, legislators likely emphasize different types of representation to develop trust in the district (Fenno 1978).²

Moreover, focusing narrowly on one dimension of representation assumes, either implicitly or explicitly, that constituents want, and thus legislators provide, the type of representation that is the topic of study. For instance, research on policy-based representation assumes constituents are satisfied only by policy congruence. Figure 3.1 shows that this assumption is problematic. The graph plots the distribution of responses to a question I included on the 2010 Cooperative Congressional Election Study (CCES) about three jobs of a state legislator. Specifically, I asked respondents to rank the importance of attention to policy, service, and allocation.³ Notice that none of the three response options is strongly preferred over the others; the proportions range only from 29.9% to 36.4%. This shows that there is considerable variation in what people think legislators should be doing to provide representation.

In sum, many studies on only one dimension omit important elements of the process (i.e., the other dimensions). Doing so is at odds with the fact that legislators view the job as being comprised of many elements and fails to account for variation in constituent demand for representation. In the remainder of this chapter I develop a theoretical framework to

²Of course, this does not mean that policy behavior is irrelevant. Indeed, scholars show that legislators’ issue choices can have real electoral consequences (Canes-Wrone, Brady, and Cogan 2002; Hogan 2008). Nonetheless, the relative safeness of incumbent legislators suggests that many of those who are “out-of-step” still gain support through other means.

³The question wording was as follows: “Here is a list of some activities that occupy political representatives as part of their job. We want to know how important you think these activities are for [state legislators]. Please rank these activities in order of importance. (1) Learning about constituents’ opinions in order to better represent their views. (2) Helping constituents who have personal problems with government agencies. (3) Making sure the district gets its fair share of government money and projects.
Figure 3.1: Rankings of Three Jobs of a State Legislator by a Sample of American Adults

Note: The graph plots the distribution of responses to a question on the 2010 Cooperative Congressional Election Study (CCES) about three jobs of a state legislator ($N = 977$). Specifically, I asked respondents to rank the importance of attention to policy, service, and allocation.

explain both variation in citizen preferences for and in legislator supply of the dimensions of representation.

3.2 Demand: Citizen Preferences for Representation

I begin with the demand side of the representation relationship. I develop the thesis and list hypotheses here, then test those hypotheses in chapter 4. My central claim is that citizens’ views regarding the role of government in their lives drives demand for representation. I delineate two conceptualizations of the term “role of government,” with the intention of testing both empirically. The first is in political-economic terms. I begin with the assumption that citizens are self-interested, or motivated by some set of economic, policy, or other goals, and that they see government as a means of fulfilling those goals. A person’s set of goals may come from a direct assessment of his or her current economic circumstances or from deeper, philosophical considerations about how government can be most effective. I posit that through this self-interest, citizens instinctively form core beliefs
over how government should advance their goals.

The second conceptualization about the role of government relates to beliefs about whether government should primarily be egalitarian or traditionalistic—or how much importance government should give to “ordinary citizens” versus elites in power when making decisions. Instead of relating directly to how government helps fulfill constituents’ goals, this conceptualization involves how people think the process of government should unfold. In particular, some may see the need for a government that reflects whatever the people want; they see government’s role as one of rule by popular sovereignty. In contrast, others prefer a hierarchical government based on deference to the choices of elites who are put in place to exercise sound judgment on citizens’ behalf.

The next step is moving from these general conceptualizations of views toward government’s role to specific preferences for the dimensions of representation. In doing so, I examine preferences for both the dimensions of representation described above (policy, service, allocation, and descriptive) and legislator role orientations, which are particular means of providing individual dimensions. Specifically, I examine preferences for delegates or trustees in the policy dimension and “pork barrel” and “fair share” legislators in the allocation dimension (see below for more details).

I expect that views toward government’s role inform how people think their representative should be spending his or her time in office, including the types of representation provided (i.e., the four dimensions) and the process of providing representation (i.e., role orientations). This is a strong claim about the nature of mass preferences in American politics. A great deal of research dating back to Converse (1964) shows that only small segments of society (i.e., the politically sophisticated) hold meaningful, structured opinions about policy issues. Here I posit that many more people than just the sophisticated

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4Indeed, views about government’s role are more general than representatives’ activities; they could also inform opinions about how the executive branch, court system, or bureaucratic agencies should behave.
hold meaningful preferences, but that for many these preferences are not about policy issues, but about other activities in which representatives should engage as part of their jobs.

3.2.1 Preferences for the Four Dimensions

The four dimensions of representation can be distinguished by the immediacy of the benefits they produce, which directly relates to differences in citizens’ goals. Thus, I posit that the political-economic model described above characterizes demand for those dimensions. While some people want government to provide long-term solutions to problems, others are more myopic, preferring quick, tangible benefits. I expect that the temporal nature of constituents’ goals influences their views on the role of government, which subsequently leads to different prioritizations of the dimensions of representation.

Specifically, I expect that those who have interest in large-scale, long-term policy outcomes view government’s role as that of a policymaking body. This, in turn, leads to a preference for policy-based representation. If constituent opinion influences a change in policy, it is likely to stay in place for a long time. Consequently, the benefits of that change will accumulate for many years. A bill defining marriage as a union between one man and one woman in a state will influence many lives in several different ways for a long period of time. Income tax laws that are favorable to a particular group will not help that group just one time, but will compound year after year.

In short, the benefits of policy-based representation are potentially quite large. Nonetheless, they also come at a cost. There is no guarantee that a legislator will respond to constituency concerns, nor that change will be successful even if he or she does listen. Furthermore, the crafting of a bill itself may take an extended length of time, so a preferred policy change will likely require delayed gratification. Thus, people who see government’s primary role as that of a policymaking body must be willing to wait for the possibility of achieving their goals for long-term change through policy-based representation.
In contrast, I expect that those who have short-term goals of obtaining economic assistance view government’s central function as that of a service-provider. One area in which government can provide them with assistance is through constituent service from their representatives. Typical service requests that legislators address include help with locating a lost unemployment check, assistance with Medicare, Medicaid, or Veterans’ benefits, and providing information on voter registration or government agencies. Unlike policy responsiveness, this type of representation does not make a major impact on how society is governed; it is a small-scale benefit to one person. However, it is also not likely to carry the same level of uncertainty or time-lag as policy change. Indeed, legislators have the incentive to help anyone in their districts rather than just a majority, and can do so more quickly than they can introduce and pass a bill through the legislature. Accordingly, I expect that those who view government as a service-provider are more likely to prioritize constituent service compared to those who think government’s main job is policy.

Similarly, those with short-term economic goals stand to benefit if government funding reaches them in some way. I expect those who view government as a provider also prioritize their district receiving financial allocation. Legislators have incentive to make allocation a form of representation. By steering money to projects in their district, they can point to tangible ways in which they are “looking out” for constituents. Funding that improves roads, infrastructure, government housing, public transportation, community centers, and other public goods could help any constituent, but especially those who rely more heavily on government-funded services and programs. As with service, this kind of representation is more tangible, and thus should be more preferable for those who view government as a provider compared to those who see government as a policymaker.

Finally, some people may hold the more abstract ideal that government should be a reflection of the governed not just in viewpoint, but through salient identity traits. In terms of representation, this likely leads to a stronger emphasis on the preference for a legislator
that shares one’s gender or race. Descriptive representation is inherently different from
policy, service, and allocation in that it does not necessarily involve concrete action on the
part of either constituent or legislator. Nonetheless, constituents may want a representative
who shares their gender or race simply as a symbol that their voice is heard in government
or because they want the representative to focus on problems that people of their gender or
race commonly face. In either case, I expect that those who think government should reflect
the people with respect to identity traits like gender or race see legislative representation as
a primary means to that end, and thus prefer a legislator who descriptively represents them.

3.2.2 Preferences for Role Orientations

Beyond the different types of representation, there is potential for variation in how leg-
islators carry out the process of representation. This is critical to understanding demand for
representation because, as scholarship shows, attitudes toward the political process are just
as consequential as those toward political outcomes (e.g., Hibbing and Theiss-Morse 2002;
Barker and Carman 2012). Accordingly, I also examine legislator role orientations and
posit that expectations about the role of government also explain variation in preferences
for those specific types. The first set (policy role orientations) provides a test of the egal-
itarian versus traditionalism conceptualization of the role of government model described
above and the second set (allocation) allows for a test between the two conceptualizations.

Wahlke et al. (1962) established the typologies of delegates and trustees as common
policy role orientations. In the delegate model, district opinion drives a representative’s
behavior—constituents “instruct” the legislator regarding what issues are important and
how to vote on those issues. A legislator following this model makes a strong effort to
learn district opinion, and feels it is his or her obligation to follow it, regardless of personal
preferences. In the trustee model, the representative uses judgment to decide what is best
for the district—constituents “entrust” the legislator to make choices on their behalf. A
trustee is less likely to follow district opinion, and more likely to seek input from policy
experts and trusted advisors. Both delegates and trustees provide policy representation to the constituency, but in two different manners.

Similarly, allocation representation could take two distinct forms. In one, the legislator secures district benefits by any means necessary. For example, a representative might add a particularized amendment securing funding for his or her district to a bill that is not primarily intended as a funding package. This is allocation in the classic pork barrel sense that is typically criticized by media and citizens as wasteful. Alternatively, the legislator may allocate by getting his or her district’s fair share of funding through a bill that is specifically designed to fund district projects. For example, a legislator may argue that his or her district should receive more funding from a bill for transportation improvements due to a strong need in the district, but would not try to secure that money from an unrelated education bill. Both are forms of allocation representation—in each case the district gets funding. The difference lies in the means with which the legislator secures the money.

The Role of Government and Delegates versus Trustees

Past work is mixed on the question of whether citizens prefer delegates or trustees, and very few studies make any attempt to explain variation in those preferences. One notable exception is recent work by Barker and Carman (2012). Their work is consistent with the second conceptualization of my role-of-government thesis: that views on government’s role as egalitarian or traditionalistic shape how people think policy-based representation should be conducted.

Barker and Carman (2012) begin with the premise that a critical cultural divide in American politics places secular progressives, who view morality as contextual and proper authority as egalitarian, against Christian traditionalists, who tend to see morality as absolute and authority as hierarchical (Hunter 1991; Fiorina 2005). These differences lead to unique conceptions about the proper role of government in making decisions that influence society. Cultural progressives are more likely to embrace a humanist perspective, believing that all people are capable of making decisions without (divine) intervention. They tend to
view government as a “participatory marketplace of ideas,” where the policy decisions that win out reflect choices made by the people (Barker and Carman 2012, 8). In their view, there is not necessarily an absolute right or wrong decision, only the idea that government should respond to what the governed think is right or wrong. In contrast, traditionalists are more likely, on average, to doubt people’s abilities to make moral decisions, especially through secular institutions like a government, and thus feel skeptical about the usefulness of the ideas of the mass public. Accordingly, they prefer a “limited institutional model of representative government, in which citizens cede policymaking power to a (presumably) exceptional few” (Barker and Carman 2012, 8).

This leads to the expectation that demand for delegates or trustees is shaped by predispositions to egalitarianism or traditionalism. Those who favor egalitarianism believe government should provide access for ordinary citizens to make decisions and prefer delegates, while people with more traditionalistic viewpoints see a need for elites in government to exert control and prefer trustees. This comports with my larger theoretical contention about views on the role of government. In this case, expectations of government’s role are not manifested in what government should be doing, but in how it should operate.

The Role of Government and Pork Barrel versus Fair Share

The allocation role orientations allow for refinement of the role-of-government thesis. To this point I have outlined two separate ways in which one might conceptualize preferences for the role of government. The first, which is evident in the discussion of preferences for the four dimensions of representation, is in political-economic terms. This type distinguishes between preferences for government as a policymaker or government as a service-provider. The second, which is seen in the discussion about preferences for delegates and trustees, addresses how much value government should place on ordinary citizens versus elites. The pork barrel and fair share role orientations represent a tension between these two conceptualizations, and thus a means of identifying more precisely how the theory works.
From a political-economic perspective, the distinctions between pork barrel and fair share should not matter to people whose daily lives are substantially impacted by government allocation. People who stand to benefit more from short-term assistance likely place more importance on their representatives bringing home distributive funding, regardless of how it is procured. On the other hand, those less reliant on government assistance can be more discerning about the process of allocating benefits and react negatively toward any perceived waste of taxpayer money. In contrast, from the egalitarian/traditionalistic perspective of the role of government, the fair share style of allocation is more equitable and in line with the ideals of egalitarianism, while pork barrel signifies a hierarchical system, in which politics naturally produces winners and losers.

The key question is whether the notion of fairness—that government should act in an egalitarian manner—wins out over the prospect of obtaining tangible, economic benefits. As I discuss below, this produces cross-pressure with respect to political ideology, and thus a means of testing between the two conceptualizations of preferences for the role of government. From a political-economic perspective, liberals should not hold differences in preferences between the two types, while conservatives should prefer the less wasteful fair share style. However, liberals’ proclivity toward egalitarianism should also lead them to prefer fair share, while conservatives’ predisposition to a hierarchical system of government is in line with the inherent competition of pork barrel politics.

3.2.3 Hypotheses

Testing this first part of the theoretical framework empirically—which I present in chapter 4—requires a way of assessing citizens’ preferences for the role of government in their lives. To this end, I employ a set of observable characteristics—economic factors, ideology, and gender and race—as a means of inferring preferences for the role of government. Three justifications support this measurement strategy.

First, recent work on estimating public preferences shows that demographics can be
used to develop accurate and reliable survey-based measures of subnational public opinion (see Lax and Phillips 2009b; Pacheco 2011). Second, as detailed below, extant literature gives considerable guidance on how specific demographic traits and preferences for government’s role are connected. Finally, using indirect measures such as demographics produces a conservative test of the hypotheses, and thus the findings reported in chapter 4 likely underestimate the true effects.

Four Dimensions

First, I expect that citizens’ economic self-interest shapes views on how government should be involved in their lives, with those in economically-disadvantaged circumstances holding relatively strong preferences, on average, for obtaining tangible benefits. Low income citizens stand to gain more from service and allocation representation compared to the wealthy because government assistance is likely more important in their daily lives. Soss (1999), for example, finds that people who use welfare services evaluate government and develop an understanding of how it works based on interactions with providers of those services (see also Griffin and Flavin 2011). From this, I expect that the poor and those likely to use government services, such as the unemployed, prefer a representative who focuses on providing material benefits to the district or individual constituents because it is likely that they will have such a need at some point in time. In contrast, policy responsiveness is less important to poorer citizens because the potential for long-term benefits from policy is less helpful than fulfilling immediate, tangible needs.

Furthermore, I expect that people with higher incomes, the employed, and the more

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5 Although those authors emphasize the importance of geographic variation, a central finding from their work is that demographics provide useful information for measuring public preferences.

6 Moreover, using direct measures of preferences for government’s role as my main independent variables may risk tautological reasoning. The indirect measures (e.g., economics and demographics) and intermediate measures (e.g., ideology and party) that I use could be seen as instruments for endogenous direct measures. I also made use of a limited set of direct measures in the empirical analysis and found results consistent with what is reported here. See the appendix to chapter 4 for details.
highly-educated are more likely to prioritize policy responsiveness. These economically-advantaged citizens likely have more at stake in policy matters, are more engaged in policy debate, and/or feel greater political efficacy (Delli Carpini and Keeter 1996; Griffin and Flavin 2011). They also are less likely to rely on government services for basic needs. Thus, they are more likely to view government’s proper role as engaging in the policy process, and prefer policy representation from their legislators.

D1 Economically-advantaged citizens prefer policy representation while economically-disadvantaged citizens prefer service and allocation.

The dominant left-right ideological dimension in American politics traditionally embodies views on the role of government, and thus likely also impacts demand for representation. In particular, the conservative preference for smaller government and less government intervention is at odds with the notion of government as a provider, which is most closely aligned with service and allocation representation. Indeed, allocation necessarily implies government spending, which conservatives may view as an unwarranted addition to the tax burden. In contrast, liberals favor government taking an active role in citizens’ lives through social services, funding assistance, and redistribution of wealth. Therefore, I posit that liberals are more likely to view service and allocation as in line with the government’s role in their lives, and prioritize it higher than do conservatives.

D2 Liberals prefer service and allocation more highly than do conservatives.

I also expect gender- and race-based differences in views on government’s role to affect preferences for representation. In its simplest form, I expect women and racial minorities to have an interest government reflecting the voice of their gender and/or race, leading to a stronger expectation of descriptive representation compared to that of men and whites. For simplicity in research design, I only test this hypothesis with respect to gender.
Moreover, there is good reason to expect additional patterns based on gender and race, as past work suggests that women and blacks hold unique views on how government should affect their lives. Scholars find that women are socialized to be more concerned with interpersonal relationships and care-taking (e.g., Eagly 1987; Kathlene 1989). This suggests that constituent service, which is focused on helping those who need assistance, is more important to women. Tate’s (2003) analysis indicates that African-Americans are most likely to expect allocation from their representatives in Congress. Similarly, Griffin and Flavin (2007) show that whites are more likely than blacks to hold legislators’ accountable for their policy behavior on Election Day. Thus, I expect that women prefer service more than do men, that blacks rate service and allocation more highly than do whites, and that whites prefer policy more than do blacks.7

D3 (a) Citizens prefer a representative who shares their gender. (b) Women prefer service more than do men.

D4 Whites have a stronger preference for policy than do blacks while blacks have a stronger preference for service and allocation.

Role Orientations

In the case of policy role orientations, Barker and Carman’s (2012) model measures the division between egalitarian and traditionalistic values along partisan lines. The Republican Party’s success in attracting evangelical Christians in the latter half of the 20th century, and the subsequent pull toward Democrats by secular Americans, makes party a clear measure of which people are, on average, more apt to hold a dogmatic, traditionalist world view and which are more inclined to the humanist, egalitarian viewpoint.

7These expectations are indirectly supported by elite-level research. Scholars find that women legislators are stereotyped as “problem-solvers” while men are “leaders” (Thomas 1992; Richardson and Freeman 1995). Similarly, compared to whites, black legislators more often take on roles as district-centric providers of assistance (Cole 1976; Grose 2011). If these roles are carried out in response to demand from those groups, then it is likely that women and African-Americans want service and allocation more so than do men and whites.
I also expect ideology to play a role in this process. First, as with party, evangelical Christians are more likely to identify as conservatives and secular Americans as liberals. Moreover, the conservative ideal of smaller government comports with the notion that constraints should be placed on how government can make decisions, while the liberal tendency toward using government to address problems in society gives more weight to the notion that “ordinary citizens” should play a role in policy outcomes. Thus, I expect that preferences for delegates versus trustees are shaped by both ideology and partisanship.

D5 Conservatives prefer trustees and liberals prefer delegates.
D6 Republicans prefer trustees and Democrats prefer delegates.

Regarding preferences for the allocation role orientations, I test both the political-economic and egalitarian/traditionalistic conceptualizations of the theory. In an economic sense, the same factors that make allocation a higher priority in the four dimensions model should moderate differences in preference for pork barrel versus fair share allocation. For instance, wealthy, employed, and educated citizens, who are less likely to be reliant on district funding, should exhibit the strongest preference for fair share allocation over pork barrel. In contrast, the poor, unemployed, and those with less education should hold the two types in closer regard, because any type of funding directed back to their district is potentially beneficial.

As noted above, the tension between the two conceptualizations should emerge with the role of ideology. On one hand, liberals’ predisposition toward redistribution of wealth should lead them to disregard the manner in which allocation occurs. In this political-economic scenario, any funding to a district is desirable because it benefits the public. However, liberals are also interested in egalitarianism, which implies that they should hold preferences over the two types, and prefer the fair share style because it is more equitable. A similar tension exists for conservatives. In a political-economic sense, they should prefer fair share simply because it is the lesser of two evils—a fair distribution of funding is more
justifiable than blatant pork barrel politics. Yet conservatism also values competition over egalitarianism, and particularized benefits for one district over another is a preferable way for a capitalist society to operate.

D7 The difference in preferences for fair share over pork barrel is larger for economically-advantaged citizens and smaller for those who are economically-disadvantaged.

D8 (a) Political-economic: The difference in preferences for fair share over pork barrel is larger for conservatives and smaller for liberals. (b) Egalitarian/traditionalistic: Liberals prefer fair share and conservatives prefer pork barrel.

A final, critical point to keep in mind here is that these hypotheses describe group-level expectations. In other words, I expect these relationships to hold on average across members of a particular economic class or demographic group, but not necessarily at the same level for all individuals in those groups. This is a logical means of developing expectations because it is consistent with how a legislator assessing demand for representation in his or her district would view the constituency. From the perspective of legislators, “on average” is what matters because it is more worthwhile to adjust behavior in response to the average preferences of an entire group rather than attempt to identify and cater to individual preferences.

3.3 Supply: Legislators’ Representational Priorities

The other half of my theoretical framework is the supply side of representation. As with the demand side, I develop my thesis and list hypotheses here. I then test those hypotheses in chapters 5 and 6. I begin with the assumptions that legislators are driven by the goal of re-election and see representation as a means to that end. This leaves the problem of how best to represent the district to achieve that goal. As mentioned above, legislators must make choices in the face of two key constraints: their resources (e.g., time and staff) and the cost of each dimension of representation. This reflects a key difference between the supply and demand sides of representation. While constituents are not constrained in
demanding maximum representation on every dimension, legislators must choose how to expend finite resources to supply it. I posit that they do so in a strategic manner.

Political scientists have typically referred to the term “strategic” as decision making in favor of a long-term goal at the expense of short-term gains (e.g., Austen-Smith 1987). In this case, a naïve legislator would not pay attention to the tradeoffs between expenditures and electoral gains for a given representation activity. He or she would simply respond to any constituents without considering if the immediate benefit of that response is worth paying the cost in the long run. In contrast, I expect that strategic representatives carry out representation while paying attention to their resources, costs, and long-term electoral gains. Table 3.1 summarizes this process. Given the goal of re-election, legislators seek ways of reaping electoral benefits, which ultimately dictates their priorities over the dimensions of representation. Constraining these benefits are the amount of resources at their disposal as well as the costs of each dimension.

The primary determinants of resources include the number of staff members, legislator salaries, and legislative session length. Staff can help through taking on some responsibilities of the job for a legislator. For example, staff typically assist with research on policy issues or in managing input and requests for help from constituents. Salary dictates whether representatives can focus full-time on legislating or must hold a second career. This affects the amount of time they can put into the job. Similarly, session length also influences their level of work; those who are in session longer can spend more time doing the job. In short, legislators’ resources directly impact their capacity to provide representation.

Costs and benefits are important because they vary by each type of representation due to the number of constituents affected and the potential level of divisiveness. Policy responsiveness can impact many constituents and produce long-term, large-scale changes in society. Responding to policy concerns through introducing or voting on a bill could affect most or all of the district, and once a bill is passed and becomes the status quo it is
Table 3.1: Summary of Resources, Costs, and Benefits in the Dimensions of Representation

<table>
<thead>
<tr>
<th></th>
<th>Policy</th>
<th>Service</th>
<th>Allocation</th>
<th>Descriptive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources</td>
<td>Variation in legislative professionalism (e.g., staff, salary, session length)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costs</td>
<td>Requires research;</td>
<td>Case-by-case;</td>
<td>Requires political capital;</td>
<td>Requires time; alienates other groups</td>
</tr>
<tr>
<td></td>
<td>often divisive</td>
<td>no public credit</td>
<td>potentially divisive</td>
<td></td>
</tr>
<tr>
<td>Benefits</td>
<td>Long-lasting change;</td>
<td>Universally positive;</td>
<td>Provides tangible benefits;</td>
<td>Support from group; affects many</td>
</tr>
<tr>
<td></td>
<td>affects many</td>
<td>not divisive</td>
<td>affects many</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Cell entries report profiles of each dimension based on resources, costs, and benefits.*
relatively difficult to change. Thus, policy responsiveness is an effective way to represent many people at one time. However, it often requires a substantial investment of resources to research policy alternatives. Furthermore, policy change is typically a zero-sum game; if one side gets what it wants, the other side loses. This can lead to disagreement from some portion of the district, weakening the legislator’s electoral support.

Constituent service is inherently a one-to-one relationship. A constituent contacts the legislator with a specific request and the legislator works to help that one constituent. Thus, service is more likely to be universally positive—even an out-party constituent can react favorably toward a legislator who provides assistance (see Serra and Moon 1994; Serra and Pinney 2004). However, because it requires more resources per person and is not typically publicized, only a limited number of constituents can be helped. Thus, receiving credit for casework is limited to constituents telling others about their experiences. In short, the per-constituent cost of providing service is higher than that of any of the other dimensions.

Allocation falls between policy and service; like policy, it also benefits many people, albeit for a shorter period of time. However, it is similar to service in that it is generally less likely to be as divisive as policy because, at least within the district, allocation is less likely to be viewed as zero-sum. However, it also requires a time investment, and in many cases political capital must be spent to bring particularized benefits home. Further, allocation could be considered wasteful by some constituents who disagree with the target of distributive funds or with the principle of government spending.

Finally, descriptive representation could benefit a legislator if the endorsing group is large enough to make such identification electorally valuable. However, it could also alienate potential supporters who are not members of or hold negative feelings toward that group. If a legislator chooses to emphasize a descriptive trait, whether in a substantive or symbolic sense, constituents who share that trait will feel represented, but those in the out-group may not. As with policy, descriptive representation is inherently zero-sum. By
establishing oneself as a voice in government for a particular group, a legislator implicitly communicates that those not in that group are a lower priority.

Another important element of this strategic model of representation is legislators’ own ability to recognize situations that will benefit them and those that will not. Freeman and Richardson (1996) find that state legislators who believe casework helps them on Election Day conduct more service. Building from this, I posit that a strategic representative makes case-by-case decisions about the extent to which they should expend resources in providing each of the dimensions of representation. I expect that legislators view some interactions with constituents as better for their chances of generating support than others, and adjust their representational priorities accordingly. If a legislator views a particular request or situation as difficult, the expected benefit declines. For example, while policy representation is typically more divisive, a given issue may not be—legislators know when a specific policy question is more or less difficult to address. Legislators also know when an individual request for service is more or less likely to be successful. I posit that in trying to generate support among constituents at an efficient cost, legislators make individual, context-specific choices about where to distribute their efforts.

In sum, this theoretical framework predicts that legislators are keenly aware of the four dimensions of representation and emphasize some over others in a strategic manner to further the goal of re-election. The costs and perceived benefits of one type are weighed against those of the others to produce the representational activities of the legislator. The next step is in moving from theory to hypotheses that can be tested, which I describe below.

3.3.1 Hypotheses

Testing this model empirically involves delineating the conditions under which resources, costs, and benefits of the dimensions of representation change. I posit that legislators carrying out strategic representation make choices about who and how to represent
based on these considerations. In particular, I expect that institutional, district, and individual factors impact these conditions.

Institutional Factors

One key institutional difference between the states is legislative professionalism. I expect that the added resources of professionalized legislatures (e.g., staff, salary, and session length) allow legislators to be more responsive than those without those resources. Legislators in professionalized institutions do not have to make as many difficult choices on who to represent or how much time they can devote to the constituency. Thus, I expect members of professionalized legislatures to prioritize representation in general more highly than do those in citizen legislatures. However, the key element of professionalism in this case is not simply the amount of resources, but the amount of resources per constituent. Indeed, professionalism and district size are positively correlated, and so some legislators may appear to have ample resources when in fact they must spread those resources across large constituencies. I account for this possibility in the empirical tests.

I expect this positive effect of professionalism on responsiveness to be strongest with constituent service and allocation. With more resources, obtaining the positive benefits of casework is a more realistic goal for those in professionalized legislatures than it is for members of citizen institutions. Put differently, those in citizen legislatures likely choose to reduce service before compromising on other dimensions due to its high per-constituent cost. With regard to allocation, research shows that professionalized legislatures electorally insulate legislators from external shocks, strengthening the incumbency advantage (Berry, Berkman, and Schneiderman 2000). I expect that legislators’ increased attention to bringing home funding is a mechanism through which this insulation develops. Legislators in professionalized bodies typically seek to build careers as representatives. Given this goal, the benefits of emphasizing allocation increase. Bringing funding home reaches a large group of people while still being less divisive than policy, facilitating broad appeal across the district.
S1 Increased legislative professionalism leads to more emphasis on policy, service, and allocation, with the largest effects on service and allocation.

I expect the institution of multimember districts to influence representational priorities by making service and allocation less important. The presence of additional representatives in the district provides a means of avoiding the high per-constituent cost of service because casework could be performed by other representatives. Thus, the incentive to free-ride is increasing in district magnitude (Ashworth and Bueno de Mesquita 2006). Multimember districts also make credit-claiming for district funding more difficult than in single-member districts because credit is likely to be split between all legislators in the district. This decreases the potential benefit of allocation.

S2 Larger district magnitude leads to less emphasis on service and allocation.

District Characteristics

I also expect district-level demand for the various types of representation to play a role in this process. Recall from above that I expect that economically-disadvantaged constituents prefer district-centric types of representation (service and allocation) compared to the economically-advantaged because poor constituents are more likely to rely on government assistance, and thus see government’s role as that of a service provider (see also Griffin and Flavin 2011). Consequently, representing a district with many of the state’s low-income constituents increases the benefits of service and allocation because it provides an opportunity to fulfill constituent preferences on a non-divisive dimension. Thus, I expect that legislators in relatively poor districts focus more on service and allocation than do legislators in relatively wealthy districts, who I expect emphasize policy.\(^8\)

S3 Lower district median income leads to less emphasis on policy and more on service and allocation.

\(^8\)Because legislators provide representation within the context of their home state, I operationalize district wealth in relation to state wealth. In 2000, state median income ranged from $29,411 (West Virginia) to $54,535 (Maryland). Thus, the definition of a “poor district” differs across the states.
Next, I posit that the racial make-up of the district is another demand-side factor that influences representation. Several studies show both direct and indirect evidence that African-American constituents prefer service and allocation, on average, over policy-based representation while whites prefer policy (e.g., Tate 2003; Griffin and Flavin 2007, 2011). From this, I expect that legislators who represent districts with large proportions of blacks prioritize service and allocation more highly compared to those in majority-white districts, who I expect emphasize policy.

Moreover, I expect that African-American legislators focus more on descriptive representation when there are more black constituents in their districts. Black legislators in districts with majority black populations have stronger mandates to represent the African-American voice in government, and likely feel a stronger symbolic attachment to the black community than do those in districts with a smaller proportion of African-Americans. Thus, the benefits of focusing on descriptive representation increases with the proportion of blacks in the district.9

S4 Higher district percent black leads to less emphasis on policy and more on service, allocation, and descriptive.

Individual Traits

Electoral vulnerability likely plays a role in determining the costs and benefits of the various types of representation. A great deal of work in American politics addresses the “marginality hypothesis,” which states that legislators facing competition are more responsive to their constituents with respect to policy, though support for this assertion is mixed (cf. Fiorina 1974; Griffin 2006). I expect that competition affects different types of representation in different ways. Similar to the idea of heresthetic change (Riker 1986), legislators facing recent close challenges have incentive to avoid the policy dimension and emphasize less divisive representational activities (see also Ashworth and Bueno de Mesquita

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9This expectation holds for women and Latinos, but the case of blacks provides the most empirical leverage due to more variation in the proportion of blacks across state legislative districts.
2006; Dropp and Peskowitz 2012; Grimmer 2012). I expect these legislators to focus less on policy representation and more on service and allocation. In contrast, the potential cost of divisiveness decreases with less competition; safe legislators can afford to focus on policy because a larger proportion of the district is likely to be supportive.

S5 More electoral competition leads to less emphasis on policy and more on service and allocation.

Next, work on ambition shows that legislators with aspirations for higher office tend to monitor district policy preferences more thoroughly than those not seeking to run for a new office (Maestas 2003). However, this work looks only at legislators’ policy-related activities, ignoring other dimensions of representation. When viewed from a multidimensional perspective, I expect that legislators seeking a different office focus less on policy-based representation. An ambitious legislator has incentive to gain a broad base of support, and often must do so in a short period of time. I expect that this produces a focus on non-divisive types of representation, such as service or allocation. Moreover, I expect this process is strongest with allocation because it is less divisive than policy but affects more people than service. In short, allocation can facilitate the development of a broad base of support in the constituency, helping to begin a campaign for new office.

S6 Ambition for a different office leads to less emphasis on policy and more service and allocation, with the largest effect on allocation.

I also expect that legislators make case-by-case strategic decisions about representational priorities. In light of the constraints of limited resources and costs of providing representation, legislators likely choose when they can be effective in specific situations, and prioritize those cases. In other words, they place value on increasing the number of constituents helped, and thus work to help the easier problems and issues first. Additionally, I expect that this relationship is strongest when dealing with constituent service requests, because casework involves the highest per-constituent cost.
A greater chance of satisfying the constituent leads to more emphasis on policy, service, and allocation, with the largest effect on service.

Finally, beyond the factors listed above that provide tests of my strategic theory, I posit that legislator partisanship, gender, and race contribute to differences in the provision of representation. The general Republican preference for smaller government and less government intervention is at odds with the notion that government should be a provider of assistance. This leads to the expectation that Republicans rate service and allocation a lower priority than do Democrats (see Stein and Bickers 1995). Regarding gender, past work also finds that women are socialized to be more concerned with interpersonal relationships and care-taking (e.g., Kathlene 1989). This suggests that constituent service and allocation, which are focused on helping those who need assistance, are more important to women than they are to men (see also Thomas 1994; Richardson and Freeman 1995). Similarly, compared to whites, black legislators more often take on roles as district-centric providers of assistance (Cole 1976; Grose 2011). Thus, I expect black legislators prioritize service and allocation more highly than do white legislators.

3.4 Summary

To summarize, my supply and demand theory involves expectations about how people form preferences for and how legislators choose to emphasize the dimensions of representation. On the demand side, I posit that citizens’ expectations about government’s role in their lives drive preferences for representation. I expect that characteristics such as economic factors, ideology, and gender and race correspond with preferences for the four dimensions of representation and two role orientations. Regarding supply, I expect that, given the constraints of resources and costs, legislators systematically emphasize some dimensions over others to further the goal of re-election. I test these expectations in the next three chapters, beginning with the demand side of the relationship.
4 CITIZEN DEMAND FOR THE DIMENSIONS OF REPRESENTATION

4.1 Introduction

I begin the empirical test of my theory by focusing on the demand side of representation. My claim from chapter 3 is that citizens’ views regarding the role of government in their lives drives demand for representation. Additionally, recall that I delineate two conceptualizations of the term “role of government”: political-economic and egalitarian/traditionalistic. In the first, I posit that through economic self-interest, citizens instinctively form core beliefs over how government should advance their goals. In the second, I expect that people’s beliefs about how much importance government should give to ordinary citizens versus elites in power shape their preferences for what representation should look like.

4.1.1 Hypotheses

In chapter 3 I drew the following hypotheses from my theoretical framework.

D1 Economically-advantaged citizens prefer policy representation while economically-disadvantaged citizens prefer service and allocation.

D2 Liberals prefer service and allocation more highly than do conservatives.

D3 (a) Citizens prefer a representative who shares their gender. (b) Women prefer service more than do men.

D4 Whites have a stronger preference for policy than do blacks while blacks have a stronger preference for service and allocation.

D5 Conservatives prefer trustees and liberals prefer delegates.

D6 Republicans prefer trustees and Democrats prefer delegates.
D7 The difference in preferences for fair share over pork barrel is larger for economically-advantaged citizens and smaller for economically-disadvantaged citizens.

D8 (a) *Political-economic:* The difference in preferences for fair share over pork barrel is larger for conservatives and smaller for liberals. (b) *Egalitarian/traditionalistic:* Liberals prefer fair share and conservatives prefer pork barrel.

4.2 Research Design

The data used to test these hypotheses come from survey experiments administered in October and November of 2010 as part of a block of “team content” on the Cooperative Congressional Election Study (CCES). Polimetrix administered the survey online to a nationally-representative sample of 1,000 respondents.\(^1\) The sample is a reasonable reflection of the American electorate, though it is more politically engaged than the general population.\(^2\) This characteristic is consistent with past CCES data (see Vavreck and Rivers 2008). As a correction, I use the CCES sampling weight constructed for the block throughout the analyses presented below.\(^3\)

4.2.1 Experimental Manipulations and Questions

The survey presented respondents with three manipulations designed to assess preferences for (1) the four dimensions of representation, (2) delegate or trustee policy representation, and (3) pork barrel or fair share allocation representation.\(^4\) All respondents

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\(^1\) Nonresponse produced about 200 cases with missing data. Although this can be a problem for analyses using observational data, the potential for bias due to missingness is less of a concern here because respondents were randomly assigned into treatments, and thus the missingness is randomly distributed across conditions.

\(^2\) For instance, 656 out of 1,000 respondents considered themselves “very interested” in politics and 679 reported the intention to vote in the November 2010 elections.

\(^3\) The CCES sampling methodology uses a two-stage matching procedure. First, a random sample is drawn from the target population. Then members of an opt-in panel of respondents that match the target sample respondents on key characteristics are chosen to produce the matched sample (Vavreck and Rivers 2008).

\(^4\) Given that my main objective is to bring the dimensions of representation together, it may seem contradictory that two of the experiments focus on only one. A solution would be to add delegate and trustee policy conditions and pork barrel and fair share allocation conditions to the first experiment. However, doing so would make it extremely complex. I consider dividing the analysis into three experiments worthwhile because it makes each one simpler.
viewed the four dimensions manipulation first, then the latter two in random order. See the appendix to chapter 4 for a complete description and full text of the survey instrument.

Four Dimensions: Election Information Experiment

The first experiment randomly presented respondents with hypothetical excerpts from non-partisan election information about an incumbent state legislator in an unidentified state. The text discussed the legislator’s reputation, specifically mentioning that the legislator performed well in providing one of policy, service, or allocation, but not the other two. Instead of assuming that legislators can perfectly provide all dimensions of representation, this approach highlighted a tradeoff between them. The policy condition portrayed the legislator as a delegate and the allocation condition did not reference pork barrel or fair share allocation. To test the descriptive representation expectations, I crossed treatments by gender via the legislator’s name (“Aaron” or “Alicia”). The legislator’s partisanship was not mentioned in this or any other manipulation.5

Thus, there were six treatments—three dimensions by two legislator names—of which each respondent saw one. After reading the text, each respondent then evaluated the legislator as if the legislator represented the respondent. This evaluation was measured on a feeling thermometer scaled from 0 to 100, with 100 being the warmest, or most positive feelings, toward the legislator.

Policy Role Orientations: Health Care E-mail Experiment

Respondents also participated in manipulations that took the form of reading and evaluating a hypothetical e-mail exchange between a state legislator and a constituent. They first saw the constituent’s question, then the legislator’s response, then evaluated the legislator on the same 0–100 feeling thermometer. One constituent question that all respondents saw asked how the legislator planned to address implementing the 2010 Federal health care

5Decades of research clearly establish the importance of party in driving evaluations of political elites. I control for partisanship in the research design as a means of examining what additional factors beyond party structure constituents’ evaluations of their representatives.
reform in the state. Respondents were then randomly presented with one of two e-mail responses. In the delegate response, the legislator explains that he or she does not personally support the bill, but will work toward its full implementation because a district poll indicates that there is support for it in the constituency. In the trustee response, the legislator acknowledges that there is support in the district, but explains that after consulting with experts, he or she believes it is best to request a state waiver of certain sections. The legislator’s name was also crossed by gender (“Eric” or “Erica”), producing four treatments (two responses by two names), of which each respondent saw one.

Allocation Role Orientations: Road Repair E-mail Experiment

Another e-mail manipulation addressed preferences for pork barrel or fair share allocation. In this case the constituent question that all respondents saw was a complaint about poor road conditions in the district. Respondents then randomly viewed one of two responses. In the pork barrel response, the legislator explains that he or she was able to add an amendment to an education bill just before the final vote that specifically sets money aside for road repair, but only in the legislator’s district because of its extreme need. In the fair share response, the legislator explains that he or she was able to secure funding for road repair in a transportation bill because the district has a real need. Again, the legislator’s name was crossed by gender (“Vincent” or “Kendra”), producing four treatments (two response types by two names), of which each respondent saw one.

4.2.2 Estimation Strategy

My strategy in testing the hypotheses listed above is to use ordinary least squares (OLS) to model the thermometer rating of the legislator in each experiment as a function of indicators for each treatment and their interactions with relevant respondent traits, as shown

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6In both conditions the district supports the reform and the legislator does not. The difference is that the delegate legislator’s action is pro-reform while the trustee’s is not. I control for the confounding effects of respondent opinion toward health care reform (see below).
below.

\[
\text{Thermometer Rating} = \gamma_1 (\text{Treatment 1}) + \ldots + \gamma_t (\text{Treatment } t) + \beta_1 (\text{Respondent Trait}) + \gamma_2 (\text{Treatment 1} \times \text{Trait}) + \ldots + \beta_t (\text{Treatment } t \times \text{Trait}) + \varepsilon
\]

These traits capture expectations about the role of government: economic factors (income, employment status, and education), ideology, gender, and race.\(^7\) I use this interaction design because my interest is not in the average effect of each treatment on the thermometer rating, but on how those effects change as a function of the key respondent traits. In addition, some questions on the CCES tapped directly into respondents’ views about government. I also estimated the model with these variables to relax the assumption that observable characteristics reflect preferences for government’s role and found results consistent with what I report here. See the appendix for more details.\(^8\)

Though a series of simple mean comparisons are one option for testing these interactive hypotheses, I use a regression framework to improve efficiency of the estimates.\(^9\) Additionally, I chose to estimate the model separately for each independent variable of interest. Another option is to put all of the variables and their interactions with each treatment in a single model. I present results from separate, smaller models because the large model approach is essentially uninterpretable; it has more than 30 variables, with half of them being interaction terms.

\(^7\)The appendix contains independent and dependent variable descriptions and summary statistics and a correlation matrix of the independent variables.

\(^8\)Specifically, I used questions asking respondents “how good is government?” and “how powerful is government?” Answers were given on 0–100 scales, with 0 signifying “awful” or “weak,” respectively, and 100 meaning “good” or “powerful.” My main conclusion from that analysis—given in the appendix—is that neither demographics and other characteristics nor the “good” and “powerful” questions are perfect measures of preferences for government’s role. However, the robustness of results across both measurement approaches bolsters my confidence in the empirical support for the theory found in these data.

\(^9\)Freedman (2008) contends that the use of regression on experimental data is problematic because randomization does not guarantee unbiasedness in the covariates of a regression model. However, he also shows that this is issue is trivial in sample sizes larger than 500. Thus, with nearly 800 usable cases, I use regression to improve efficiency.
Of course, this strategy opens the door to the issue of underspecification. While treatments were randomly assigned to respondents, the demographic variables—which are likely to be correlated—were not, and thus there is the potential for omitted variable bias. However, in this case the two approaches produce findings that are largely consistent; see the appendix for both sets of results. Thus, because conclusions are essentially unaffected by the choice, I use the smaller models to mitigate the “curse of dimensionality” from large models (Achen 2002).

4.3 Results

In place of tables, I present results graphically with expected values of the thermometer rating based on different experimental condition/respondent trait combinations (see the appendix for results in table form). Before presenting the main results, I briefly assess the baseline treatment effects for descriptive purposes. I present these baseline models graphically in the appendix. They show that, on average, people prefer (1) the policy condition over service and service condition over allocation, (2) the delegate condition over trustee, and (3) the fair share spending condition over pork barrel. However, my central concern is identifying factors that produce changes in these baseline preferences. I turn to this task below.

4.3.1 Election Information Experiment

Figure 4.1 shows several graphs depicting tests of the first two hypotheses (economic factors and ideology). The x-axes display experimental conditions and respondent traits and the average thermometer rating is plotted on the y-axes. An asterisk above two same-shaded bars indicates a statistically significant difference between them ($p < 0.05$, two-tailed). The ratings are calculated with the male legislator condition, unless noted otherwise.

As expected in D1, panel (a) shows that wealthy citizens have a stronger average preference for the policy legislator than do poor citizens, while the poor have stronger preferences.

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10 I compute these quantities of interest using the R package Zelig (Imai, King, and Lau 2012).
Figure 4.1: Average Feeling Thermometer Ratings by Income, Employment Status, Education, and Ideology in the Election Information Experiment

Note: The graphs present the average thermometer rating in each experimental condition by the minimum and maximum value of each respondent trait. * Difference between two same-shaded bars is statistically significant at $p < 0.05$ (two-tailed).
for the allocation condition, on average. Furthermore, wealthy citizens’ average rating of
the policy legislator is larger than their average ratings of the service and allocation condi-
tions. All of these effects are statistically significant \( p < 0.05 \) and substantively large. For
example, the difference in average ratings of the policy condition between the very poor
($10,000/year) and very rich (more than $150,000) is about 23 points on the 0–100 feel-
ing thermometer. Similarly, the poor rate the allocation legislator approximately 11 points
higher, on average, than do the wealthy.

Employment status (panel b) shows similar effects. On average, employed citizens rate
the policy treatment 19 points higher than do the unemployed (significant at \( p < 0.05 \)),
while the unemployed rate the allocation legislator 17 points higher than do employed
people (significant at \( p < 0.05 \)). Additionally, within employed people the average policy
condition rating is significantly larger than ratings of the service and allocation legislators.
In contrast, unemployed respondents show the opposite effect: their average ratings of the
allocation and service conditions are notably larger than the average policy condition rating
(9 and 22 points, respectively).

Panel (c) of Figure 4.1 is also supportive of the expectations in D1. In particular, highly-
educated respondents (those with post-graduate training) rate the policy legislator 12 points
higher on average than do those with a high school diploma. As expected, less-educated
respondents rate the allocation legislator moderately higher than do the educated (3 points),
though this difference is not statistically significant.

Finally, panel (d) shows supportive results regarding ideology (D2). In particular, lib-
erals’ average rating of the allocation treatment is significantly larger than that of conser-
vatives. Again, this difference is substantively large—21 points, or one-fifth of the range
of the feeling thermometer. In contrast, liberals’ and conservatives’ average ratings of the
policy legislator are not significantly distinguishable, nor are their average ratings of the
service condition. This latter result contrasts with D2. One explanation may be that because service is more case-specific and does not always imply government spending, it is less problematic to most conservatives relative to allocation.

Figure 4.2 displays results corresponding to tests of D3 and D4 (gender and race). Panels (a) and (b) give the average ratings of the female and male legislator name, respectively, by respondent gender. They show only partial support for D3. In contrast to my expectations, respondents do not rate the legislator of their same gender more highly, on average, than the legislator of the other gender. There is some support for the expectation that women prefer service more than do men: in panel (a), women rate the service condition higher, on average, than do men, while men rate the policy condition higher, on average, than do women. However, this finding only appears in ratings of the female legislator.

Figure 4.2, panel (c) shows support for my expectations concerning race (D4). Specifically, whites have a stronger preference for the policy treatment, on average, compared to blacks. This difference is large (19 points) and statistically significant ($p < 0.05$). As expected, the average black ratings of the service and allocation conditions are larger than whites’ (5 points in each). The difference in average service ratings is marginally significant ($p = 0.10$). Within blacks, the average ratings of the service and allocation legislators are 14 and 9 points larger than the average black rating of the policy legislator ($p < 0.05$ and $p < 0.10$, respectively).

In summary, this first set of results shows support for several hypotheses outlined above. Consistent with my expectations about the political-economic role of government in citizens’ lives, the election information experiment indicates that economic factors, ideology, race, and (to a lesser degree) gender impact demand for the dimensions of representation. Economically-advantaged citizens and whites show a preference for policy representation while the economically-disadvantaged and blacks prefer service and/or allocation. Ideology also matters—liberals show a stronger preference for allocation than do conservatives.
Figure 4.2: Average Feeling Thermometer Ratings by Gender and Race in the Election Information Experiment

(a) Gender (Female Legislator)

(b) Gender (Male Legislator)

(c) Race

Note: The graphs present the average thermometer rating in each experimental condition by male and female respondents in both gender conditions (panels a and b) and white and black respondents (panel c). * Difference between two same-shaded bars is statistically significant at $p < 0.05$. + $p = 0.10$ (two-tailed).
However, these dimensions are not the only preferences for representation that citizens can hold. Below I continue the test of my theoretical framework in the experiments on preferences for legislator role orientations.

4.3.2 Health Care E-mail Experiment

A key issue in the analysis of the health care e-mail experiment—which examines preferences for policy role orientations—is the confounding influence of respondents’ opinions on health care reform. In both messages the district supports the health care bill and the legislator does not, but the delegate’s action is pro-reform while the trustee’s action is anti-reform. To address this I include an indicator for support or opposition to the health care bill in the model testing D5 (ideology) and D6 (party).\footnote{This controls for the effect of health care opinion on the average thermometer rating. However, it may be the case that the polarizing nature of the health care debate caused Republicans and Democrats to respond differently to the treatments. For instance, a heterogeneous treatment effect could emerge if Republicans who are opposed the health care bill favor the trustee condition more strongly than Democrats who support the bill favor the delegate. I include additional control specifications in the appendix and find that the results shown here are robust.} As before, I present results in graphic form; see the appendix for complete results in table form. Figure 4.3 displays the average thermometer rating by ideology (strong liberal versus strong conservative) and party (strong Democrat versus strong Republican).

Panel (a) shows the effects of ideology, controlling for respondents’ support or opposition to the health care bill and its interaction with each treatment. Conservatives display a significantly stronger average preference for the trustee condition than do liberals. This difference is 23 points, or almost one-fourth of the entire range of the feeling thermometer. Moreover, liberals rate the delegate condition significantly larger, on average, than do conservatives (12 points). Finally, conservatives prefer the trustee legislator significantly more, on average, than they prefer the delegate (26 point difference, $p < 0.05$) and liberals, on average, rate the delegate legislator higher than they rate the trustee (9 points, $p < 0.10$).

Party shows similar results, again controlling for health care opinion (panel b). Republicans’ average rating of the trustee condition is significantly larger than that of Democrats...
(a) Ideology (Control: HC Opposition) (b) Party (Control: HC Opposition)

Note: The graphs present the average thermometer rating in each experimental condition by the minimum and maximum values of ideology and party. Both models include a control for opposition to the health care bill and its interaction with each condition. * Difference between two same-shaded bars is statistically significant at $p < 0.05$ (two-tailed).

(18 points), while Democrats’ average rating of the delegate legislator is significantly larger than that of Republicans (11 points). Furthermore, within Republicans (Democrats) the average rating of the trustee (delegate) condition is 22 (7) points larger than the delegate (trustee) condition, though the difference is only significant within Republicans.

To summarize, these results support the role-of-government thesis through the egalitarian versus traditionalistic model discussed above. Consistent with my expectations, liberals and Democrats, who are more likely to hold the egalitarian view that ordinary citizen should have a voice in government, show a significant preference for the delegate model of policy-based representation. In contrast, conservatives and Republicans, who are more likely to hold traditionalistic views toward government’s role, prefer trustees. As shown in the appendix, these effects hold even after controlling for one another.\textsuperscript{12}

\textsuperscript{12}This finding is also supported by operationalizing egalitarian versus traditionalistic values through measures of religiosity (e.g., importance of religion or frequency of church attendance). This is consistent with
4.3.3 Road Repair E-mail Experiment

Having shown support for both conceptualizations of the role-of-government thesis, the final experiment allows for a test between them through preferences for the allocation role orientations. Figure 4.4 graphs the thermometer ratings by treatment conditions for D7 and D8. See the appendix for complete results in table form.

Figure 4.4: Average Feeling Thermometer Ratings by Income and Ideology in the Road Repair E-mail Experiment

(a) Income

(b) Ideology

Note: The graphs present the average thermometer rating in each experimental condition by the minimum and maximum value of each respondent trait. * Difference between two same-shaded bars is statistically significant at \( p < 0.05 \) (two-tailed).

Panel (a) shows support for D7 through the effects of income. Note that, on average, the poor rate the pork barrel condition higher than do the wealthy (10 points, \( p < 0.05 \)), while the wealthy rate the fair share condition higher than do the poor (13 points, \( p < 0.05 \)). Furthermore, poor citizens’ average ratings of the two conditions are not statistically

Barker and Carman’s (2012) claim that the sorting of Christian traditionalists and secular progressives into the Republican and Democratic parties, respectively, produces the observed differences in preferences for policy role orientations.
distinguishable. In stark contrast, wealthy respondents rate the fair share condition 20 points higher on average than they rate the pork barrel condition (significant at $p < 0.05$). Results for the other economic variables (employment status and education) also support D7 (see the appendix).

Panel (b) shows results for ideology (D8) that are consistent with the political-economic version of the role-of-government thesis. As in the election information experiment, liberals rate both allocation conditions statistically significantly higher, on average, than do conservatives (26 and 11 points, respectively, $p < 0.05$). Additionally, although liberals rate the fair share condition 3 points higher than the pork barrel condition, on average, this difference is not significant. In contrast, conservatives’ average rating of the fair share condition is 17 points higher than their average rating of the pork barrel condition ($p < 0.05$).

These results indicate that views on the role of government in a political-economic sense drive preferences for representation. Liberals prefer both types of allocation much more than do conservatives, but liberals make only small distinctions between the two types. Thus, liberals’ feelings of egalitarianism shown in preferences for the policy role orientations are weaker in this context; their views that government should act as a provider of assistance wins out. Similarly, the expectation that conservatives should be sympathetic to the pork barrel style of allocation due to the view that winners and losers should emerge in politics is trumped by their competing negative affect toward unjustified government spending, shown by the higher average rating of the fair share condition.

Thus, the road repair e-mail experiment breaks new ground in understanding demand for representation by dividing allocation into two distinct role orientations and provides a third piece of evidence supporting my theoretical model of demand for representation. The effects of income show that economically-advantaged citizens dislike pork barrel compared to fair share, but the economically-disadvantaged make no discernible distinction between
the two. Furthermore, this experiment provides a crucial refinement to the theory. Each of the first two experiments supports a different conceptualization of the role-of-government thesis. This final experiment allows those two models to compete through the effects of ideology, which ultimately leads to the emergence of the political-economic model as the one with the most support.

4.4 Discussion

These results generally show support for my theoretical claim that expectations about government’s role drive demand for representation, with the conceptualization of government’s role in a political-economic sense emerging as particularly important. People who stand to gain the most from government assistance or see provision of assistance as part of government’s role favor district-centric representation (service and allocation), while those who rely less on government or view its role as more limited have a stronger relative preference for policy. Expectations about how citizen input should influence government also matter. Liberals and Democrats, who are likely to hold the egalitarian view that ordinary people should have a voice in government, favor delegates, while traditionalistic conservatives and Republicans prefer trustees. Finally, consistent with the political-economic viewpoint, preferences for pork barrel or fair share allocation representation vary by economic factors and ideology. Those less likely to rely on government for basic needs exhibit a larger preference for fair share allocation over pork barrel than do those who stand to benefit more from government assistance.

Overall, this chapter contributes to the representation literature by unifying several unique dimensions of the concept—four dimensions and role orientations within two of those dimensions—in a more general theory of citizen demand. I contend that citizens’ expectations of how government should be involved in their lives leads to preferences over how legislators should provide representation. By using survey experiments to mitigate social desirability bias and by examining preferences for different types of representation
and the process by which it is provided, I show that the typical delegate-style policy responsiveness paradigm—or any model that forces preferences for representation into one dimension—oversimplifies a larger and more complex process.

Having shown support for my expectations regarding citizen demand for the dimensions of representation, I next turn to the supply side of the relationship. In chapters 5 and 6 I test the other half of my theory with an examination of the factors that drive legislators’ choices in providing representation. In doing so, I rely on the results presented in this chapter to generate expectations about how legislators respond to demand for representation when deciding how to supply it.
5 DETERMINANTS OF LEGISLATORS’ REPRESENTATIONAL PRIORITIES

5.1 Introduction

I continue the empirical test of my theory by turning to the supply of representation. My theoretical claim from chapter 3 is that legislators emphasize different dimensions in a strategic manner to maximize their chances of re-election. More specifically, legislators must make choices in the face of two key constraints: their resources (e.g., time and staff) and the cost of each dimension of representation. I posit that legislators are aware of which activities are worth their time and effort and which are not with respect to the expected level of support they can generate in the constituency. Thus, my expectations center on factors that influence resources, costs, and benefits.

5.1.1 Hypotheses

In chapter 3 I drew the following hypotheses from my theoretical framework.

S1 Increased legislative professionalism leads to more emphasis on policy, service, and allocation, with the largest effects on service and allocation.
S2 Larger district magnitude leads to less emphasis on service and allocation.
S3 Lower district median income leads to less emphasis on policy and more on service and allocation.
S4 Higher district percent black leads to less emphasis on policy and more on service, allocation, and descriptive.
S5 More electoral competition leads to less emphasis on policy and more on service and allocation.
S6 Ambition for a different office leads to less emphasis on policy and more service and allocation, with the largest effect on allocation.
A greater chance of satisfying the constituent leads to more emphasis on policy, service, and allocation, with the largest effect on service.

5.2 Research Design

The data I used to test these hypotheses come from two survey experiments administered online to American state legislators from January–May 2011. I e-mailed the survey link to 6,678 legislators from 46 states, or about 90% of the population of 7,382 state legislators in 2011. The e-mail asked potential respondents to take an anonymous survey “about the job of a state legislator,” and specifically mentioned that either the legislator or a staff member could provide the response. 1,362 recipients clicked on the link and 1,175 respondents from all 46 states reached the end of the survey. Of those completions, 246 (≈ 21%) reported being a member of the legislator’s staff. Each respondent was given a total of 10 questions and the median completion time was five minutes.

The appendix to chapter 5 contains more details on the representativeness of the sample, including a comparison to population proportions of chamber and party membership, gender, and race as well as full state-level response rates. The sample is reasonably representative of the population of state legislators. Women, Democrats, and members of lower chambers are slightly overrepresented compared to their population proportions, while blacks and Latinos are somewhat underrepresented. To address these issues, I constructed a survey weight for all analyses described below through a raking procedure designed to match sample and population marginals with respect to chamber, party, gender, and race. Unweighted results are substantively similar to the results I report below.

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1In four states (Idaho, South Carolina, South Dakota, and Texas) e-mail addresses were unavailable or contacting legislators required a valid physical mailing address in the legislator’s district.

2Thus, the sample reflects an 18% response rate, or 16% of the population of state legislators in 2011. Some legislators did not respond to some questions, and thus the usable sample is 924 for the first experiment and 1,099 for the second. However, the experimental design described below ensured that missing data were distributed randomly across treatment conditions.
5.2.1 Experimental Manipulations and Questions

The survey presented respondents with two sets of experimental manipulations: a traditional survey experiment and a list experiment. All respondents completed the traditional survey experiment first, then the list experiment. See the appendix for the full text of both experiments.

Constituent E-mail Experiment

In the first experimental manipulation, respondents were randomly presented with hypothetical e-mails from a constituent. The topic of each message signaled a policy, service, or allocation question. The policy question was on public education, the service question requested assistance in getting a driver’s license, and the allocation question asked about funding to repair roads in the district. Each message was also crossed by the constituent’s gender and race via the name; specifically, I used traditionally white, black, and Latino/a male and female names to signal these traits. Thus, there were 18 experimental conditions (3 message types × 2 genders × 3 races). Each respondent viewed three messages in total (policy, service, and allocation), although I present results below based only on their responses to the first message viewed.

After viewing one of the three e-mail messages, respondents answered two questions. The first was a rating of the priority respondents would assign to that e-mail if it were sent to them from a constituent. This measure ranged from 0–100, with 0 being the lowest priority, 50 representing “average priority” and 100 being the highest priority. The second question asked respondents to rate the likelihood that they could satisfy the constituent’s request on a 1–6 scale, with 1 corresponding to “very unlikely” and 6 corresponding to “very likely.”

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3 Lists of names came from Fryer and Levitt (2004) and the sources therein.
4 I report results from this between-subjects design rather than the within-subjects design that includes all three responses to avoid problems from respondents learning the aim of the study as they viewed and responded to the three messages in succession.
List Experiment

In the constituent e-mail experiment, my expectations about descriptive representation are operationalized through the constituent’s name at the bottom of the message, but not in the entire message as with the other three dimensions. Thus, I also employed a list experiment as an additional test of those expectations. List experiments provide a means of eliciting answers to sensitive items in a way that protects anonymity (e.g., Blair and Imai 2012). Respondents are randomly divided into treatment and control groups, presented with a list of items, and asked to provide the number of those items that apply to them (but not which items). The control group receives a list of non-sensitive items, while the treatment group receives the same non-sensitive items plus one sensitive item. Differences in the average number of items between the two groups can then be interpreted as an estimate of the proportion of the population that affirms the sensitive item.

In this case, the non-sensitive items I presented (in random order) were five potential jobs of a legislator. Three described policy, service, and allocation representation and two described additional tasks. Respondents in the control group saw only these five items.

(1) Learning about constituents’ opinions in order to better represent their views.
(2) Helping constituents who have personal problems with government agencies.
(3) Making sure the district gets its fair share of government money and projects.
(4) Preparing to run for higher office, such as Governor or the U.S. Congress.
(5) Representing the views of interest groups.

I anticipated that the latter two items would be relatively less popular, and thus induce negative correlation with the first three. This is a common technique in list experiments designed to keep the average number of items in the control group from becoming too high (see Blair and Imai 2012). Respondents in the treatment group saw (in random order) the five items above in their lists and the sensitive item: (6) Making sure that people who are of the same gender or race as you have their voices heard in government. As I discuss
in greater detail below, differences between these two groups produces an estimate of the proportion of the population of legislators who view descriptive representation (as defined by this item) as part of their job.

5.2.2 Estimation Strategies

Testing the hypotheses with these experiments involves two different estimation strategies: a linear model for the constituent e-mail experiment and difference-in-means and item count regression for the list experiment.

Constituent E-mail Experiment

The main dependent variable of interest in the constituent e-mail experiment is the priority rating reported by each respondent. My strategy in testing the hypotheses listed above is to use a linear model of this measure as a function of indicators for each treatment and their interactions with relevant legislator traits, as shown below.

\[
\text{Priority Rating} = \gamma_1 (\text{Treatment 1}) + \ldots + \gamma_t (\text{Treatment } t) + \beta_1 (\text{Legislator Trait}) + \\
\beta_2 (\text{Treatment 1} \times \text{Trait}) + \ldots + \beta_t (\text{Treatment } t \times \text{Trait}) + \varepsilon
\]

These traits capture the institutional, district, and individual factors discussed above.\(^5\) As in chapter 4, I use this interaction design because my interest is not in the average effect of each treatment on the priority rating, but on how those effects change as a function of the key respondent traits. I use a multilevel model (MLM) with a state-level random intercept to account for unobserved heterogeneity common to legislators from the same state.\(^6\)

Importantly, similar to my strategy in chapter 4, I estimate these models separately for each independent variable of interest. Another option is to put all of the variables and their interactions with each treatment in a single model. I present results from separate,

\(^5\)The appendix contains independent and dependent variable descriptions and summary statistics and a correlation matrix of the independent variables.

\(^6\)Like in chapter 4, though a series of simple mean comparisons are one option for testing these interactive hypotheses, I use a regression framework to improve efficiency of the estimates (Freedman 2008).
smaller models because the literature on interaction terms makes clear that the large model approach is essentially uninterpretable (Brambor, Clark, and Golder 2006). In this case the model has 36 covariates, with half of them being interaction terms. Of course, this strategy opens the door to the issue of underspecification. While treatments were randomly assigned to respondents, the institutional, district, and individual variables—many of which are likely to be correlated—were not. However, in this instance the two approaches produce findings that are largely (though not entirely) consistent; see the appendix for results with the control variables mentioned above and the 36-covariate “full model.” In the main analyses below I use the smaller models to mitigate the “curse of dimensionality” from large models (Achen 2002).

List Experiment

The typical approach to modeling list experiment data is to conduct a simple difference-in-means test between the treatment and control groups. This method does not rule out omitted variable bias from pre-treatment covariates or allow for more complex hypothesis testing. Blair and Imai’s (2012) item count regression (ICT) solves these problems by allowing analysts to conduct multiple regression analysis with list experiment data. The method uses a non-linear least squares estimator to model the treatment and control group means conditional on a set of covariates. Here I use it to assess whether apparent racial differences between treatment and control are due to other factors and to examine how these racial differences change as a function of district racial make-up.

5.3 Results

I present and discuss results from the constituent e-mail experiment first and the list experiment second. Additional results and robustness checks are given in the appendix.

5.3.1 Constituent E-mail Experiment

In place of tables, I present results graphically with expected values of the priority rating based on different experimental condition/respondent trait combinations (see the appendix
for results in table form). Before presenting the main results, I briefly assess the baseline treatment effects for descriptive purposes. I present these baseline models graphically in the appendix. They show that, on average, respondents prioritize the service condition over policy and policy condition over allocation, though these differences are somewhat small in magnitude and not statistically significant. Additionally, differences between the different gender and racial names only correspond with small differences in the expected priority ratings. However, my central concern is identifying factors that produce changes in these baseline preferences. I turn to this task next.

I begin with results for the institutional and district-level variables (S1–S4) in Figure 5.1. In each panel the y-axis plots expected values of the priority rating as a function of experimental condition and legislator trait combinations, which are listed on each x-axis. Asterisks and plus signs above two same-shaded bars indicates a statistically significant difference between them ($p < 0.05$ and $p < 0.10$, respectively). The ratings are calculated with the white male constituent condition.

I begin with the impact of state legislative professionalism (panel a). I use Squire’s (2007) index divided by the log of district population in 2005 for this measure. Results are not contingent on this choice, but scaling by population is appropriate because it best captures the amount of resources per constituent available to a legislator. Panel (a) shows that the difference between the minimum and maximum of that variable is not significant in the policy condition. However, in line with S1, members of professionalized legislatures rate the service and allocation messages as higher priorities, on average, compared to the average ratings of those in citizen legislatures ($p < 0.05$ for the service condition and $p = 0.13$ for allocation). Furthermore, as expected the difference is largest in the service condition—22 points, or more than one-fifth of the 0–100 scale.

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7I compute these quantities of interest using the R packages lme4 (Bates, Maechler, and Dai 2011) and mvtnorm (Genz, Bretz, Hothorn, Miwa, Mi, Leisch, and Scheipl 2008).

8The scaled and unscaled versions of the measure produce substantively identical results.
Figure 5.1: Effects of Institutional and District-Level Factors in the Constituent E-mail Experiment

(a) Professionalism

(b) District Magnitude

(c) District Median Income

(d) District % Black

Note: The graphs present the expected priority rating in each experimental condition for the minimum and maximum values of professionalism (Squire 2007) scaled by district population (panel a), a single-member versus four member district (panel b), district median income scaled by state median income (panel c), and 50% versus 5% black constituents. * Difference between two same-shaded bars is statistically significant at $p < 0.05$ (two-tailed).
Panel (b) compares the expected priority ratings of legislators in single-member districts to those in a district with four members (the variable ranges from 1 to 11). Although the difference between the two groups in the allocation condition are negligible, there is a significant difference in the service condition (7 points, $p < 0.05$). Furthermore, while legislators in single-member districts rate the service condition 2 points higher, on average, than they rate the policy condition ($p < 0.05$), the expected service rating for a legislator in a four-member district is 3 points lower than the expected policy rating ($p < 0.10$). In line with S2, legislators in multimember districts rate service as a lower priority, on average, than do those in single-member districts.

Panel (c) displays the effects of constituent demand through district income. I divide the log of district median income by the log of state median income in 2000. Results show support for S3. On average, legislators representing the poorest districts rate the service condition substantially higher than do legislators in the wealthiest districts (24 points, $p < 0.05$). Poor-district legislators also rate the allocation condition 4 points higher than do those in wealthy districts, on average, though the difference is not significant. Furthermore, legislators in wealthy districts rate the policy condition 5 points higher, on average, compared to poor-district legislators’ rating, though this difference also is not significant. Looking within each group, legislators in poor districts rate the service condition significantly higher, on average, than they rate the policy condition (15 points) and wealthy-district legislators’ average ratings of the policy condition are 14 and 6 points higher than their average ratings of the service and allocation conditions ($p < 0.05$ in each case).

The effects of district percent black in panel (d) represent another demand factor. The graph shows the expected priority ratings for legislators representing districts with 50% and 5% black constituents (the measure ranges from 0–90% in the sample). Results show

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9 Results are unchanged with an indicator variable for multimember districts.

10 This reflects the fact that legislators provide representation within the context of their home states, where the definition of wealth may be different from other states.
strong support for S4. A legislator representing a district with 50% black constituents rates the service and allocation messages higher priorities, on average, compared a legislator representing a 5% black district. These effects are substantively large (14 and 6 points, respectively) and significant at the 0.05 level. Furthermore, note that while expected ratings of the three conditions are nearly identical for the legislator in a 5% black district, the expected ratings for a legislator in a 50% black district show a larger prioritization of service (14 points) and allocation (5 points) compared to policy. Both differences are significant at the 0.05 level.11

Figure 5.2 displays results for the individual-level variables (S5–S7). Panel (a) displays the effects of electoral competition (S5), comparing a legislator who received 50% of the two-party vote in his or her last election to one who received 100%. The graph shows that legislators in competitive districts rate service a significantly lower priority compared to safe legislators, on average (the other conditions show no differences). This stands in contrast to S5 and the findings of Ashworth and Bueno de Mesquita (2006) and Dropp and Peskowitz (2012). However, this estimate is less stable than the others reported here; in the large model with controls in the appendix, the effect reverses to show support for S5.

The role of progressive ambition is depicted in panel (b). The graph compares expected priority ratings for a legislator who indicated he or she planned to run for a different office in the next election to one who did not.12 Results support S6. In particular, those running for a different office rate the policy message a lower priority, on average, than do those not running for a new office (6 point difference, \( p < 0.05 \)). A similar pattern holds for the service condition (9 point difference, \( p < 0.05 \)). Most importantly, as S6 predicts ambitious legislators rate the allocation condition 9 points higher, on average, than do those

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11 Additional results from splitting the sample by black and white legislators suggests that these effects are stronger for black legislators than for white legislators, but reduced statistical power led to considerable uncertainty around those estimates.

12 The other choices were (1) very likely to seek re-election, (2) equal chance of seeking re-election or not, (3) unlikely to seek re-election, (4) term-limited out, and (5) undecided.
Figure 5.2: Effects of Individual-Level Factors in the Constituent E-mail Experiment

(a) Electoral Competition

(b) Ambition

(c) Likelihood of Satisfying Request

Note: The graphs present the expected priority rating in each experimental condition for 50% versus 100% of two-party vote share (panel a), whether or not a legislator plans to run for a different office (panel b), and a rating of very unlikely versus very likely to satisfy the constituent (panel c). * Difference between two same-shaded bars is statistically significant at $p < 0.05$ (two-tailed). + $p < 0.10$ (two-tailed).
not running for a different office. The confidence intervals are relatively large due to a small sample of legislators reporting the intention to seek new office, but the difference is significant at the 0.10 level and the effect is substantively significant (nearly 10% of the range of the dependent variable). Furthermore, within ambitious legislators, the average rating of the allocation condition is 13 points larger than the average rating of the policy condition \( (p < 0.05) \).

Panel (c) shows the effect of legislators’ assessment of their chance of satisfying the constituent in the message. That graph shows strong support for S7. Legislators who thought they were “very likely” to satisfy the constituent prioritize that e-mail substantially higher, on average, than do those who thought they were “very unlikely” to satisfy the constituent. Indeed, this difference amounts to an average of at least 30 points on the priority scale, depending on the treatment message \( (p < 0.05 \text{ in all three conditions}) \). Additionally, the values next to each pair of bars on the graph, which indicate the difference between the two bars, indicate further support for S7. The average difference in priority ratings between the “very likely” and “very unlikely” categories for each condition is larger in the service condition (54 points) than in either of the other two (33 for policy, 30 for allocation). Each of these difference-in-differences is significant at the 0.05 level.

In summary, the constituent e-mail experiment provides considerable support for the theoretical model of the strategic provision of representation, with six of seven hypotheses receiving at least partial support. Added resources give members of professionalized legislatures a means of emphasizing service and developing electoral insulation by bringing home district funding. Legislators in multimember districts have incentive to free-ride, and prioritize service lower. In response to district demand, legislators representing poor and majority-minority districts focus on district-centric representation. Ambitious legislators prioritize the less divisive allocation over policy. Legislators’ priorities also change on a case-by-case basis depending on their estimated chance of satisfying a constituent’s
Finally, results for the control measures do not produce large changes in the results shown here and conform to expectations (see the appendix). However, the constituent names signing the messages that were designed to signal gender and race produced small differences in the priority ratings with no clear patterns. Thus, I turn to the list experiment data to examine prioritization of descriptive representation more directly.

5.3.2 List Experiment

In the appendix I present the list experiment difference-in-means results by gender and race. The difference between the number of items in treatment and control is statistically significantly different at the 0.05 level for both men and women, though the difference-in-differences is not significant. The effect is stronger along racial lines. The difference in mean number of items between whites in treatment and control is a statistically significant 0.31, suggesting that about 3 in 10 white legislators consider descriptive representation as one of their responsibilities among the options given in the question. In contrast, for blacks in the sample the number jumps to a difference of nearly 1, which implies that almost all black legislators count descriptive representation among their duties from the options given. Due to the small sample size of black respondents, this estimate has a large standard error (the lower 95% confidence bound is 0.52). But it is still statistically significantly different from the estimate for whites (0.31, upper 95% confidence bound of 0.43). In short, black legislators view descriptive representation as a part of their job at higher rates compared to white legislators.

However, the difference-in-means approach does not allow for control variables or the testing of an interactive hypothesis like S4, which states that black legislators prioritize descriptive representation more as the percentage black in their districts increases. Support for this hypothesis would come from a larger difference between blacks in treatment and control who represent majority-black districts compared to the difference between blacks in
the two groups who represent majority-white districts. Blair and Imai’s (2012) ICT method facilitates such a test in a multiple regression framework. Panel (a) of Figure 5.3 presents ICT results with several covariates. Points correspond to coefficient estimates and lines indicate 95% confidence intervals. The key independent variable of interest is an interaction between the indicator for black legislators and district percent black. From S4, I expect the coefficient on that interaction to be positive in the treatment group and negative in the control, indicating that the difference between blacks in treatment and control becomes larger as the percentage of blacks in the district increases.

The results show support for S4. The coefficient on the interaction term between black legislator and district percent black is positive in the treatment group and negative in the control group. However, it is only statistically significant in the control group. Thus, more interpretation is needed to assess whether the relationship is substantively meaningful. Panel (b) of Figure 5.3 shows the substantive implications of these results. The graph plots the estimated proportion of white legislators (gray line) and black legislators (black line) affirming the sensitive item across the observed range of district percent black, with asterisks on the lines where each estimate is statistically significantly different from zero. The histograms at the bottom show the distribution of district percent black for districts with a white legislator (gray) and districts with a black legislator (black).

Panel (b) shows considerable support for S4. The estimated proportion of white legislators affirming the sensitive item increases moderately (about 10 percentage points) across the observed range of district percent black for white legislators (0-71%). In contrast, the estimated proportion for black legislators increases dramatically, from an estimate of less than 10% affirming the sensitive item in a district with 1% black constituents to about 99% in districts that are 90% black. The histograms show that most black legislators represent

\[13\text{Blair and Imai (2012) also provides a means of testing for the presence of a design effect—whether respondents in the treatment group responded differently to the non-sensitive items than did those in the control group. These data show no evidence of a design effect.}\]
Figure 5.3: Effects of Gender and District Percent Black in the List Experiment

(a) Legislator Gender

(b) District % Black

Note: Panel (a) presents ICT regression coefficients and 95% confidence intervals. Panel (b) presents the estimated proportion of white legislators (gray line) and black legislators (black line) affirming the sensitive item across the observed range of district percent black. The histograms at the bottom of panel (b) show the distribution of district percent black for districts with a white legislator (gray) and districts with a black legislator (black). * p < 0.05 (two-tailed).
heavily black districts and most white legislators represent districts with small proportions of blacks. Nonetheless, both black and white legislators still share a substantial portion of the range (1–71%). Finally, the estimate for whites is statistically significant from about 0–35% black, while the estimate for black legislators becomes significant once the percentage black in the district reaches approximately 45%.

In sum, by using ICT regression rather than only the difference-in-means approach, I show that the racial effect is robust to several control variables and that there exists a key interactive effect. Black legislators emphasize the descriptive dimension of representation more as the group that they descriptively represent becomes larger, and understate that dimension as the group size decreases.\textsuperscript{14} This strong interaction may provide an explanation for the lack of differences based on gender observed in these data. Unlike with race, all districts have about 50% women, and thus there is no variation to produce changes in the emphasis on descriptive representation.

5.4 Discussion

As with chapter 4, this chapter contributes to the representation literature by unifying four dimensions of the concept in a single theoretical model. In this case, the model provides insight into legislators’ priorities, or the supply side of representation. Furthermore, I test my expectations on original data from a survey of state legislators. Rather than conceptualizing representation solely as responsiveness to policy, I demonstrate that legislators emphasize policy, service, allocation, and descriptive representation systematically in a manner that is consistent with furthering the goal of re-election. Institutional, district, and individual-level factors affect the costs and benefits associated with those dimensions, thereby driving legislators’ strategic representational behavior.

\textsuperscript{14}Of course, these results are also consistent with the slightly different expectation that majority-black districts tend to elect black representatives who prefer to emphasize descriptive representation. However, that hypothesis is still consistent with my larger theoretical claim that to be successful a legislator must focus on descriptive representation when the constituency demands it.
Specifically, the constituent e-mail experiment indicates that legislators in professionalized institutions, which benefit from increased resources, prioritize service and allocation more highly than do those in citizen legislatures. District demand is also a key determinant of representational priorities: legislators in wealthy districts and districts with small minority populations emphasize policy while legislators representing poor and majority-minority districts focus relatively more on district-centric types of representation (service and allocation). Individual traits such as progressive ambition and legislators’ own assessments of the likelihood of satisfying a problem also affect how they prioritize interactions with constituents. Finally, I show evidence of strategy in descriptive representation; black legislators prioritize descriptive representation more highly when more of their constituents are black.

The experimental design used in this chapter benefits from strong internal validity and permits secure causal inferences to be drawn from the data. Nonetheless, the nature of creating hypothetical manipulations in a survey leaves external validity as a potential threat. Do the factors that influence responses to the different dimensions of representation as they appear in the survey instrument also affect the actual behavior of legislators in the real world? I examine that question in the next chapter by testing these same theoretical expectations on data coded from state legislators’ websites.
6 LEGISLATIVE WEBSITES AND THE DIMENSIONS OF REPRESENTATION

6.1 Introduction

In this chapter I continue the test of my theoretical expectations regarding the supply of representation. My theoretical claim from chapter 3 is that legislators emphasize different dimensions in a strategic manner to maximize their chances of re-election. More specifically, legislators must make choices in the face of two key constraints: their resources (e.g., time and staff) and the cost of each dimension of representation. I posit that legislators are aware of which activities are worth their time and effort and which are not with respect to the expected level of support they can generate in the constituency. Thus, my expectations center on factors that influence resources, costs, and benefits.

In contrast to the survey experiments from chapter 5, here I utilize data coded from state legislators’ websites in 2011-2012. Whereas the strength of the experimental data was internal validity and the capacity to make causal inferences, the website data allow for improved external validity in the test of my theory because they come from actual behavior by legislators: the online content that they choose to present to constituents. As I describe more below, websites are an ideal source of data for understanding legislators’ representational priorities.

6.1.1 Hypotheses

In this chapter I test the following hypotheses listed in chapter 3.¹

S1 Increased legislative professionalism leads to more emphasis on policy, service, and allocation, with the largest effects on service and allocation.

¹I do not test S7 because it is only applicable to legislators interacting with a single constituent (as in the constituent e-mail experiment in chapter 5).
S2 Larger district magnitude leads to less emphasis on service and allocation.
S3 Lower district median income leads to less emphasis on policy and more on service and allocation.
S4 Higher district percent black leads to less emphasis on policy and more on service, allocation, and descriptive.
S5 More electoral competition leads to less emphasis on policy and more on service and allocation.
S6 Ambition for a different office leads to less emphasis on policy and more service and allocation, with the largest effect on allocation.

6.2 Research Design

The data come from a random sample of 510 state legislators’ websites in 46 states.2 These websites are an ideal source of data for three reasons. First, they provide a strong connection between my main theoretical concept—legislators’ representational priorities—and measurement. The websites are built to communicate to constituents, and so representatives’ expressed priorities are the main focus of their content. In my interviews described in chapter 1 I asked legislators about the image they try to present with their websites. The most common response was that websites are an accurate reflection of how legislators try to portray themselves to the entire constituency. This is consistent with Druckman, Kifer, and Parkin’s (2010) finding that webmasters who create Congressional websites “view ‘voters in general’ and ‘undecided voters’ as the primary target audiences” (94).

A second advantage of this source is that websites are widely available across states, producing data with substantial variation on state, district, and individual variables. This contrasts with other communication forms, such as television advertising, which is common at the Congressional level, but much less so in state legislatures.3 The opportunity

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2In three states all legislator websites look almost identical, and each individual has only trivial control (Indiana, Michigan, Pennsylvania). I could not find any websites of Maine’s legislators when beginning this project.

3Indeed, this archive represents a completely new source of data for scholars. To my knowledge, it is
to understand how institutional, district, and individual factors influence representation is a key contribution of this study. Research done at the Congressional level can illustrate how district- and individual-level characteristics affect representation, but can produce only minimal insight on the role of legislative institutions.

Finally, website content provides a richer source of information on representational priorities than do the more blunt measures used in previous research. For example, the topics a legislator chooses to include on the front page of a website gives more detailed insight into what that legislator thinks is important to communicate to constituents than does the number of bills he or she sponsors or the number or location of his or her district offices (e.g., Box-Steffensmeier, Kimball, and Meinke 2003; Griffin and Flavin 2011; Grose 2011). Furthermore, website content provides insight into the tradeoffs legislators must make in providing representation. While there is virtually no limit to the amount of content that can be put on a website, legislators must make choices about what is most important to highlight because website visitors’ attention spans are short (Liu, White, and Dumais 2010).

Despite these advantages, a key point to keep in mind is that not all legislators choose to maintain a website. Thus, the population to which I generalize below is state legislators who have a website. While this is only a subset of state legislators, it is a relatively large subset. In preparing the random sample of sites I analyze below, I visited over 2,800 websites from legislators in 46 states. Furthermore, in the appendix to chapter 6 I compare my sample of legislators to the population of state legislators in 2011 on several key variables and find it to be reasonably reflective of that population.
6.2.1 Coding the Websites

During the academic year 2011–2012, graduate student research assistants coded the front page and subpages of 510 state legislator websites for content on policy, service, allocation, and descriptive representation. This produced several measures of legislators’ emphasis on the various dimensions of representation. The research assistants also saved a “snapshot” of each site for replication of my analysis and/or future use by other researchers. In this analysis I focus on two specific types of dependent variable: (1) whether the front page contains at least one content item related to each of the four dimensions and (2) the number of content items on each of the dimensions present on the entire site.\(^4\)

With this measurement strategy, I define a stronger emphasis on a particular dimension of representation as an increase in the probability of observing a front page item and/or an increase in the total number of items on that dimension. For example, I expect that a legislator who places relatively more emphasis on allocation has a front page item on allocation and/or a relatively large total number of items devoted to allocation. I use both types of dependent variable—front page items and total number of items—to account for the fact that some legislators tend to place most of their content on the front page of the site while others distribute it across several pages.

Coding Rules

Research assistants followed a set of coding rules that were presented in an online entry form. Each coder was given a link to the form and a set of legislator website URLs (divided randomly), then completed the form one time for each website. Intercoder reliability scores indicate consistent measurement across coders. See the appendix for a full report of these intercoder reliability scores, exact wording of the coding rules, and example websites.

The coding rules defined policy content items as any mention of a policy issue, including the presence of an issue in a list of issues, a definition of an issue, text describing the

\(^4\)Coders visited the front page and one level of subpages (e.g., pages that were “one click” away from the front page). Any items on pages three or more levels into the site were not included.
legislator’s views, recent bill introductions, and/or votes, or a district poll on one or more issues. Service items were coded as any mention of a unique type of assistance the legislator provides through the website or offers to provide after further contact. These typically included useful links about government resources, contact information about government agencies or other public officials, district maps, voter information, information about scholarships or other educational programs, and offers to assist with specific requests. Allocation items were coded as any mention of a unique funding grant or project secured by the legislator for the district. Finally, descriptive items were coded as any picture or text identifying the legislator with a gender or racial group. This included both explicit cues about groups, such as a Republican women’s caucus or NAACP chapter, or implicit references, such as a picture of the legislator with several black ministers in the district.⁵

6.2.2 Estimation Strategies

I employ logistic regression to model whether the front page contains an item on each dimension and quasi-Poisson regression to model a count of the site’s items on each dimension.⁶ The lone exception to this is the model of the number of descriptive items. In that case the count ranges only from 0 to 4 items, and so I estimate a logit model of whether the site has one or more descriptive items.⁷ I use multilevel models (MLM) in all cases with a state-level random intercept to account for unobserved state-level heterogeneity.⁸

My main independent variables of interest are the institutional, district, and individual factors described above. However, I also control for a number of other factors that could

⁵Although the coding rules are sufficiently general to allow for non-minority gender or racial groups (e.g., men’s groups or white organizations), empirically only minority groups appeared on the websites, even in cases where the legislator was a white male.

⁶The count dependent variables in this analysis all show strong evidence of overdispersion (p < 0.05), which makes estimation of a dispersion parameter in the quasi-Poisson model (rather than assuming it equals one in a standard Poisson) important for obtaining valid estimates of uncertainty. Quasi-Poisson regression is very similar to negative binomial regression, with the only difference being the function used to model the variance (see Ver Hoef and Boveng 2007).

⁷See the appendix for summary statistics on all of the dependent variables.

⁸Logit and quasi-Poisson estimates come from the R packages lme4 and HGLMMM, respectively (R Development Core Team 2012; Bates, Maechler, and Dai 2011; Molas and Lesaffre 2011).
influence website content, including legislator-specific traits and features of each website. Specifically, I control for legislator gender, race, party, and the natural log of the money the legislator raised in his or her last campaign. I use this variable as a proxy for the legislator’s level of engagement in maintaining his or her website. I expect that legislators who raise more money are, on average, more engaged with using their websites because they have more resources for communicating with the district. Additionally, I expect that the dimensions of representation are likely to correlate with one another. Thus, in each model I control for attention to the other three dimensions. Finally, I control for the natural log of the number of pages on the site. This measure of the site size reflects the fact that there are more chances for a given representation item to appear on a website as the total amount of content increases.

Out-of-Sample Predictive Model Fit

One problem that is important to avoid when evaluating statistical models is overfitting. Accordingly, I assess the performance of my models through out-of-sample prediction via leave-one-out cross-validation (CV). This method involves iteratively removing each observation from the data set, estimating the model on the remaining observations, then computing a predicted value for the omitted observation using the estimates from the reduced-data model. This renders the data used to fit the model (i.e., “training data”) independent of the testing data, which avoids overfitting the model to the sample (see Smyth 2000).

More specifically, I employ CV to compute predicted probabilities for each observation from the logit models and predicted counts from the quasi-Poisson models. I then compare those model predictions to the actual values of each dependent variable. A perfect model’s

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9 Results are unchanged by the inclusion or exclusion of this variable. Results are also unchanged when a control for whether the website is a campaign or legislative site is included.

10 For example, in the logit model of front page policy items, I control for whether the front page has a service item, allocation item, and descriptive item. Another strategy would be to estimate these models simultaneously and allow the errors to correlate. In my case, this would require a four-equation estimator, which is not available in standard statistical software (to my knowledge). As a check on this issue, I computed the residual correlations for my models and found them to be very near zero (see the appendix). Furthermore, results from bivariate probit models are substantively similar to what I report here.
predictions would exactly reproduce the dependent variable. This level of precision is not realistic, so I look for predictions that closely approximate the dependent variable as evidence of good fit. Note that using an out-of-sample predictive fit measure provides a difficult test for each model. Generating predictions for observations using the model that included those observations would produce a positive (i.e., optimistic) bias in model fit, because some of the random noise in the sample at hand would affect the parameter estimates used to make those predictions (Akaike 1974; Smyth 2000).

6.3 Results

The research design described above produces two regression models for each of the four dimensions of representation (front page and number of items models). I first present the estimation results graphically, then assess several quantities of interest generated from the models.

6.3.1 Estimation and Model Fit

Panel (a) in Figures 6.1–6.4 plots the coefficients (points) and 95% confidence intervals (lines) from the front page and number of items models for each dimension of representation. The vertical line at zero is intended for hypothesis testing; a coefficient is statistically significantly different from zero if its confidence interval does not cross that vertical line.\(^{11}\)

Panel (b) of each figure presents graphical assessments of model fit. For the logit models, the model fit graph is a separation plot (Greenhill, Ward, and Sacks 2011). This method plots the observations in ascending order of their CV predicted probabilities on the x-axis against the values of the predicted probabilities on the y-axis (shown by the black line). Dark vertical shading in the background indicates observations with an actual value of 1 on the dependent variable and light shading indicates observations with an actual value of 0. The arrow at the bottom of the plot denotes where the expected number of 0s ends and expected 1s begins. This is generated by summing the predicted probabilities generated

\(^{11}\)Some variables were scaled to fit on the plots. See the appendix for full results in table form.
by the model. A perfect-fitting model would produce all dark shading to the right of the expected number arrow and all light shading to the left of that arrow, implying that CV predictions from the model produce perfect separation of the actual 1s and 0s in the dependent variable (see Greenhill, Ward, and Sacks 2011, 995). More realistically, a model that fits “well” should produce a higher concentration of dark shading toward the right side of the plot and a higher concentration of light shading to the left.

For the quasi-Poisson models, the model fit graph in panel (b) of each figure plots a histogram of the CV predicted counts (light gray) and a histogram of the actual counts (dark gray), with overlap of the two in medium gray. Similar to the separation plot, a perfect fitting model would produce two identical histograms (i.e., perfect overlap), implying that the model’s predicted counts are equivalent to the actual counts. Given that no model could attain this standard, a model that fits the data “well” should produce two histograms that look very similar to one another, shown by large amounts of medium gray.

Policy Models

Panel (a) of Figure 6.1 plots the front page (logit) and number of items (quasi-Poisson) models for policy content. Although only a few variables reach statistical significance at the 0.05 or 0.10 levels, there is moderate support for some of the hypotheses listed above. The coefficient on Ambition, which is an indicator variable for legislators who plan to run for a different office in the next election cycle, is negative in the front page model as expected from S6, and statistically significant \( (p < 0.10) \). As predicted from S3, the coefficient on District Median Income—which is scaled by state median income to reflect relative wealth—is positive, indicating that policy content is more prevalent on the websites of legislators representing relatively wealthy districts. However, that estimate is not statistically significant.

The graphs in panel (b) show that these models provide adequate fit to the data. The separation plot (top) shows that there is a larger concentration of dark shading toward the right end of the graph (e.g., observations with high predicted probabilities and actual 1s
Figure 6.1: Policy Model Results and Out-of-Sample Predictive Model Fit

(a) Estimates

- Front Page (Logit)
  - N = 510
  - BIC = 716.51
- Items (Q.−Poisson)
  - N = 510
  - BIC = 3796.82

- Professionalism
- District Magnitude
- District Median Income
- District % Black
- Electoral Competition
- Ambition
- Female Legislator
- Black Legislator
- White Legislator
- Republican
- Democrat
- Black Legislator × District % Black
- White Legislator × District % Black

(b) Model Fit

Logit Model Fit: Separation Plot

Quasi-Poisson Model Fit: CV Predicted Counts vs. Actual Counts

Note: Panel (a) plots the coefficients (points) and 95% confidence intervals (lines) from the front page (black) and number of items (gray) models for policy content. A coefficient is statistically significantly different from 0 if its confidence interval does not cross that vertical line. Note that some variables were scaled to fit on the plots. Controls for the natural log of campaign spending, natural log of number of pages on the website, and service, allocation, and descriptive content are included in the specification but not shown. Panel (b) provides graphical assessments of model fit. The top graph presents logit model fit in a separation plot of the CV predicted probabilities. The bottom graph presents fit of the quasi-Poisson model through a histogram of the CV predicted counts generated by the model and a histogram of the actual counts. See section 6.3.1 for more details on these model fit graphs.
on the dependent variable). However, there is also a considerable amount of dark shading toward the left end of the plot (observations with low predicted probabilities and actual 1s on the dependent variable). The bottom graph shows two histograms that are somewhat similar. The predicted count of policy items generated by the model is, on average, similar to the actual counts (means of 8.74 and 8.87, respectively), though there is more variance in the actual counts (standard deviations of 3.84 and 5.99, respectively). Thus, these policy models provide reasonable, though not perfect, out-of-sample predictions.

Service Models

Panel (a) of Figure 6.2 shows some support for S1 and S3 with respect to service content. The coefficients on Professionalism—which is Squire’s (2007) measure divided by district population—are both positive, indicating that legislators in professionalized institutions are more likely to highlight service on their websites (p < 0.05 in the front page model).12 Furthermore, in the number of items model the coefficient on District Median Income is negative and statistically significant (p < 0.10). Legislators in wealthier districts (compared to the state median) have fewer service items on their websites, on average, compared to those representing poorer districts.

The model fit plots in panel (b) show that these models fit the data reasonably well. A larger concentration of dark shading falls toward the right side of the separation plot, while more light shading appears on the left side. Additionally, the bottom graph shows that the distribution of predicted counts from the quasi-Poisson model approximates the distribution of actual counts (means of 1.11 and 2.02, respectively), though the actual counts again show larger variance (standard deviations of 1.32 and 4.47, respectively).

12I scale professionalism by district population to produce a measure of resources per capita. This reflects the fact that a legislator may not actually have enough resources to provide representation if he or she must spread those resources across a large constituency.
**Figure 6.2: Service Model Results and Out-of-Sample Predictive Model Fit**

(a) Estimates

- Front Page (Logit) $N = 510$, BIC = 761.06
- Items (Q−Poisson) $N = 510$, BIC = 2753.30

- Professionalism
- District Magnitude
- District Median Income
- District % Black
- Electoral Competition
- Ambition
- Female Legislator
- Black Legislator
- White Legislator
- Republican
- Democrat
- Black Legislator × District % Black
- White Legislator × District % Black

(b) Model Fit

- Logit Model Fit: Separation Plot
- Quasi-Poisson Model Fit: CV Predicted Counts vs. Actual Counts

*Note:* Panel (a) plots the coefficients (points) and 95% confidence intervals (lines) from the front page (black) and number of items (gray) models for service content. A coefficient is statistically significantly different from 0 if its confidence interval does not cross that vertical line. Note that some variables were scaled to fit on the plots. Controls for the natural log of campaign spending, natural log of number of pages on the website, and policy, allocation, and descriptive content are included in the specification but not shown. Panel (b) provides graphical assessments of model fit. The top graph presents logit model fit in a separation plot of the CV predicted probabilities. The bottom graph presents fit of the quasi-Poisson model through a histogram of the CV predicted counts generated by the model and a histogram of the actual counts. See section 6.3.1 for more details on these model fit graphs.
Allocation Models

Panel (a) of Figure 6.3 shows some support for S1 and S3. The coefficients on *Professionalism* are both positive ($p < 0.05$ in the front page model), indicating that the websites of legislators in professionalized institutions have more allocation content, on average, compared to those in citizen legislatures. Additionally, the coefficients on *District Median Income* are negative (as expected from S3), though not statistically significant.

The model fit plots in panel (b) show that these models fit the data fairly well. A larger concentration of dark shading falls toward the right side of the separation plot and light shading falls to the left, though there are some observations with actual 1s (0s) for which the model produces a very low (high) CV predicted probability value. Additionally, the bottom graph shows that the distribution of predicted counts from the quasi-Poisson model follows the distribution of actual counts; the average of the predicted counts (0.73) is reasonably close to that of the actual counts (0.98). However, the model does not generate as many large count predictions as are observed in the real data (standard deviations of 1.12 for the predicted counts and 3.15 for the actual counts).

Descriptive Models

Finally, panel (a) of Figure 6.4 shows some support for S4. The coefficients on *Female Legislator* and *Black Legislator* are all positive, suggesting that women and blacks are more likely to have descriptive items on their websites (front page or other pages). Both coefficients on *Female Legislator* are significant at the 0.05 level and the coefficient on *Black Legislator* is significant at the 0.10 level in the one or more descriptive items model. Moreover, the coefficients on *Black × District Percent Black* are positive, indicating that black

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13Note that the sample size in the front page model drops to 503 in this case. The dependent variable is too sparse to estimate a separate parameter for the few cases of independent/non-partisan legislators in the data set.

14The sample sizes drop to 481 and 487 in these models because the dependent variable is too sparse to estimate a separate parameter for the few cases of independent/non-partisan legislators and/or legislators of other races (i.e, non-black and non-white) in the data set.
Figure 6.3: Allocation Model Results and Out-of-Sample Predictive Model Fit

(a) Estimates

- Front Page (Logit)
  - N = 503
  - BIC = 363.58
  - Items (Q.-Poisson)
  - N = 510
  - BIC = 1855.79

- Professionalism
- District Magnitude
- District Median Income
- District % Black
- Electoral Competition
- Ambition
- Female Legislator
- Black Legislator
- White Legislator
- Republican
- Democrat
- Black Legislator × District % Black
- White Legislator × District % Black

(b) Model Fit

Logit Model Fit: Separation Plot

Quasi-Poisson Model Fit: CV Predicted Counts vs. Actual Counts

Note: Panel (a) plots the coefficients (points) and 95% confidence intervals (lines) from the front page (black) and number of items (gray) models for allocation content. A coefficient is statistically significantly different from 0 if its confidence interval does not cross that vertical line. Note that some variables were scaled to fit on the plots. Controls for the natural log of campaign spending, natural log of number of pages on the website, and policy, service, and descriptive content are included in the specification but not shown. Panel (b) provides graphical assessments of model fit. The top graph presents logit model fit in a separation plot of the CV predicted probabilities. The bottom graph presents fit of the quasi-Poisson model through a histogram of the CV predicted counts generated by the model and a histogram of the actual counts. See section 6.3.1 for more details on these model fit graphs.
legislators in districts with large black populations are even more likely, on average, to include descriptive content on their websites than those in districts with smaller proportions of black constituents.

The two separation plots in panel (b) show that these models fit the data reasonably well. As before, a larger concentration of dark shading falls toward the right side of the plots and light shading falls to the left. The logit model of whether the website has one or more descriptive items fits particularly well by this standard, as a very large proportion (53%) of actual 1s (e.g., dark shading) falls to the right of the arrow separating expected 1s and 0s.

6.3.2 Quantities of Interest

While evaluating coefficient sign and significance and overall fit provides an adequate initial impression of these models, evaluating the support for my theoretical framework in these data requires a more detailed look at substantively meaningful quantities of interest. I focus on two such quantities here: predicted probabilities from the logit models and predicted counts from the quasi-Poisson models. I compute these quantities of interest for substantively meaningful changes to key independent variables while holding the other variables constant.¹⁵

The Effects of State Legislative Professionalism

The model results indicate that state legislative professionalism plays an important role in shaping the content of legislators’ websites. In particular, as expected by S1, \textit{Profession-}

¹⁵I compute quantities of interest through holding the other variables constant at their medians or modes using the \texttt{R} package \texttt{Zelig} (Imai, King, and Lau 2012).
Figure 6.4: Descriptive Model Results and Out-of-Sample Predictive Model Fit

(a) Estimates

Front Page (Logit)
N = 481
BIC = 266.29

Items (Logit)
N = 487
BIC = 487.05

(b) Model Fit

Front Page Logit Model Fit: Separation Plot

1+ Items Logit Model Fit: Separation Plot

Note: Panel (a) plots the coefficients (points) and 95% confidence intervals (lines) from the front page (black) and number of items (gray) models for descriptive content. A coefficient is statistically significantly different from 0 if its confidence interval does not cross that vertical line. Note that some variables were scaled to fit on the plots. Controls for the natural log of campaign spending, natural log of number of pages on the website, and policy, service, and allocation, content are included in the specification but not shown. Panel (b) provides graphical assessments of model fit in separation plots of the CV predicted probabilities. See section 6.3.1 for more details on these model fit graphs.
In all four cases *Professionalism* displays a substantively meaningful positive effect. The probability of observing a front page service item increases by about 42 percentage points across the observed range of the variable, while the probability of observing an allocation item on the front page increases by 41 percentage points over that span. Similarly, the expected number of service (allocation) items on the site increase from about 1 to 2 (0.68 to 1.5), on average, across the range of *Professionalism*. These differences between the maximum and minimum values are statistically significant ($p < 0.05$) in panels (a) and (c).

The Effects of District Median Income

Figure 6.6 presents results from changes to *District Median Income*. The graphs plot the observed range of *District Median Income* on the x-axes against the predicted probability of observing a front page policy item (panel a), the expected number of service items on the website (panel b), and the expected number of allocation items on the website (panel c).

The graphs show some support for S3. Across the range of *District Median Income* (x-axes), the probability that a legislator’s website contains a front page policy item increases by 15 percentage points (panel b), the expected number of service items on the site decreases from 1.87 to 0.79 (panel c), and the expected number of allocation items decreases from 0.88 to 0.77 (panel d). However, only the difference in panel (b) is statistically significant ($p < 0.10$).

Individual Legislator Traits

Finally, Figure 6.7 shows the effects of several individual traits. Panel (a) compares the probability of observing a front page policy item between non-ambitious and ambitious legislators, and panels (b), (c), and (d) show several results regarding descriptive representation. Panel (b) compares the probability of observing a front page descriptive item for black male and female legislators and and white male and female legislators. The bottom
Figure 6.5: The Effects of State Legislative Professionalism on Website Content

(a) Front Page Service

(b) Service Items

(c) Front Page Allocation

(d) Allocation Items

Note: The graphs plot the observed range of Professionalism on the x-axes against the predicted probability of observing a front page service item (panel a), the expected number of service items on the website (panel b), the predicted probability of observing a front page allocation item (panel c), and the expected number of allocation items on the website (panel d).
Figure 6.6: The Effects of District Median Income on Website Content

(a) Median Income, Front Page Policy

(b) Median Income, Service Items

(c) Median Income, Allocation Items

Note: The graphs plot the observed range of District Median Income on the x-axes against the predicted probability of observing a front page policy item (panel a), the expected number of service items on the website (panel b), and the expected number of allocation items on the website (panel c).
two graphs plot the predicted probability of observing one or more descriptive items on
the site across the range of District Percent Black for black legislators (panel c) and white
legislators (panel d).

Panel (a) shows some support for S6. The predicted probability of observing a front
page policy item is larger for non-ambitious legislators (0.59) than it is for legislators plan-
ing to run for a different office (0.36). This difference of 0.23 is statistically significant
at the 0.10 level. Panel (b) shows that the probability of observing a descriptive front page
item is larger for black women legislators than it is for black men (8 percentage points) and
larger for white women legislators than it is for white men (3 percentage points). These
within-race gender differences are statistically significant at the 0.10 level.

Finally, panels (c) and (d) provide some support for S4. Across the observed range
of District Percent Black, the probability of a black legislator’s website containing at least
one descriptive item increases from about 0.30 (11% black, the minimum observed value
for a black legislator in the sample) to 0.79 (82% black, the maximum). This difference
is significant at the 0.10 level. In contrast, the minimum to maximum increase for white
legislators—moving from a 0% to 59% black district—corresponds with a nonsignificant
increase of 12 percentage points (0.07 to 0.19).16

6.4 Discussion

These results provide some support, though not complete support for my theoretical
expectations. Four of the six hypotheses receive at least partial support, with S2 (district
magnitude) and S5 (electoral competition) receiving no support in these data. In particular,
the importance of resources and demand from the district stand out. Legislators in profes-
sionalized institutions, who have more resources and greater incentive to develop electoral
insulation, emphasize service and allocation on their websites more on average than do

16However, the difference-in-difference (0.49 − 0.12 = 0.37) is not statistically significant (95% confidence
intervals of [−0.27, 0.80]).
Figure 6.7: The Effects of Individual Legislator Traits on Website Content

(a) Ambition, Front Page Policy

(b) Gender and Race, Front Page Descriptive

(c) Dist. % Black, 1+ Descriptive Items (Black Legis.)

(d) Dist. % Black, 1+ Descriptive Items (White Legis.)

Note: Panel (a) compares the probability of observing a front page policy item between non-ambitious and ambitious legislators. Panel (b) compares the probability of observing a front page descriptive item for black male and female legislators and and white male and female legislators. The bottom two graphs plot the predicted probability of observing one or more descriptive items on the site across the range of District Percent Black for black legislators (panel c) and white legislators (panel d).
their counterparts in citizen legislatures. Legislators representing relatively wealthy districts tend to have websites that focus more on policy and less on service and allocation compared to those in relatively poor districts. Additionally, the data show evidence that black legislators respond more strongly to the number of black constituents they represent: as the percentage black in the district increases, black legislators are much more likely to display descriptive content on their websites.

Overall, there is a great deal of consistency between the two different tests of my expectations about the supply of representation. For example, findings on the effects of legislative professionalism and the district demand variables show that the resources available to legislators and constituent preferences influence legislators’ representational priorities. The district demand variables are of particular importance because they show a connection between both the demand and supply sides of my theory. However, while this positive influence of demand on supply may seem like an encouraging assessment of the American political system, in the next chapter I conclude that this relationship may actually contribute to the inequality in representation that other scholars have found.
7 CONCLUSIONS

I began this dissertation with the contention that the concept of representation can be both too broad and too narrow to enable a satisfactory understanding. On one hand, scholars have divided and categorized it in so many different ways that it is difficult to make sense of any true meaning. How do we understand a concept that has been described at different points in time as dyadic, collective, promissory, anticipatory, gyroscopic, surrogate, congruent, responsive, formalistic, symbolic, substantive, descriptive, democratic, and non-democratic? Conversely, is it reasonable to say that representation is so narrow that it is present if and only if constituent ideology correlates positively with the ideological direction of legislator voting behavior? Does a legislator fail to represent the district as soon as his or her voting behavior becomes more liberal or more conservative than the average constituent?

The research presented here supports my claim that there is a feasible conceptualization that falls between these two extremes. My choice to split representation along four dimensions—policy, service, allocation, and descriptive—accounts for important complexity but does not become so general as to lose its usefulness. Each dimension is sufficiently concrete such that recognizing it in practice is possible. Indeed, this four-dimension paradigm reflects key elements of the job of a legislator. Yet my conceptualization also does not reduce the question of whether a legislator is a “good” representative solely to his or her capacity to reflect district ideology in roll call votes. This comports with the frustration expressed by the legislator I interviewed, who felt he was doing more for his constituents than they recognized by only following his votes in the legislature.

I provide a brief summary of my findings as well as concluding thoughts in this chapter.
I focus my conclusions on two contributions made by this dissertation. The first is its potential impact on scholarly literature on representation. I make the case for the four-dimension paradigm, contending that political scientists studying representation should take seriously the idea that both constituents and legislators have diverse perspectives over what representation should look like. The second contribution relates to the normative question of who wins and loses when it comes to representation. I explain why my results suggest that the nature of citizen demand for representation and legislators’ subsequent response to that demand may facilitate representational inequality in American politics.

7.1 A Summary of the Findings

This research unifies four dimensions of representation in a single theoretical model of both citizens’ preferences (demand) and legislators’ priorities (supply). I test this theory on original data from a survey of Americans, a survey of state legislators, and an archive of state legislators’ websites. Results support my claim that citizens’ expectations of how government should play a role in their lives drives preferences for the various dimensions of representation and that legislators emphasize those dimensions systematically in a manner that is consistent with furthering the goal of re-election.

Results from chapter 4 show that citizens’ expectations of government’s role in their lives, particularly in a political-economic sense, is an important determinant of representational demand. People who stand to gain the most from government assistance or see provision of assistance as part of government’s role favor service and allocation, while those who rely less on government or view its role as more limited have a stronger relative preference for policy. Expectations about how citizen input should influence government affect preferences for a delegate or trustee role orientation within the policy dimension. Finally, consistent with the political-economic viewpoint, preferences for pork barrel or fair share allocation representation vary by economic factors and ideology.
In chapter 5, survey experiment results indicate that legislators in professionalized institutions, which benefit from increased resources, prioritize service and allocation more highly than do those in citizen bodies. District demand is also a key determinant of representational priorities: legislators in wealthy districts and districts with small minority populations emphasize policy while legislators representing poor and majority-minority districts focus relatively more on service and allocation. Individual traits such as progressive ambition and legislators’ own assessments of the likelihood of satisfying a problem also affect how they prioritize interactions with constituents. Finally, I show evidence of strategy in descriptive representation; black legislators prioritize descriptive representation more highly when more of their constituents are black.

Finally, the analysis in chapter 6 again suggests that legislators in professionalized legislatures prioritize service and allocation more highly than do their counterparts in citizen institutions and that legislators in wealthy districts and districts with small minority populations emphasize policy while legislators representing poor and majority-minority districts focus relatively more on district-centric representation. Evidence of strategy in descriptive representation also appears again; black legislators focus more on descriptive website content when more of their constituents are black.

7.2 Implications for the Study of Representation

These results provide an explanation for the apparent contradiction between the numerous roadblocks to policy congruence in American politics and the relatively high re-election rates of American legislators. I show that not all constituents evaluate legislators based on responsiveness to policy. Consequently, legislators emphasize other parts of the job to garner support in their districts, giving them freedom from district preferences on policy concerns. This is relevant to representation scholars because it implies that the typical approach in the literature of focusing narrowly on only one dimension leaves out important elements of the process.
This does not mean that studies that on individual dimensions have no value. However, going forward I contend that these studies should account for other dimensions in both theory and empirics. Theoretically, this might mean incorporating how the other dimensions mediate the dimension of interest. For example, how would descriptive representation impact the provision of constituent service? Should the same processes that make policy responsiveness stronger or weaker also moderate allocation representation? Empirically accounting for the other dimensions will vary, but could include control variables for other dimensions, additional experimental treatments that cue the other dimensions, or stratifying analyses to examine policy bills, allocation bills, and bills that are symbolic in nature.

Furthermore, future work could advance the theoretical framework initiated here by addressing multiple dimensions as the main topic of interest. This line of research would benefit from added refinement to the theory, tests of these hypotheses under different conditions, and tests of new hypotheses. For example, while I explored role orientations legislators take on in providing policy and allocation representation, future studies could look at role orientations in the other dimensions. Additional work could also examine the electoral consequences of multidimensional representation. Do preferences for representation influence constituents’ voting behavior? Relatedly, do “multidimensionally out-of-step” legislators suffer at the polls?

7.3 Implications for American Political Inequality

Beyond their influence on political scientists, these results have important implications for the question of whether all Americans are equally represented. Recent work uncovers class- and race-based inequality in policy representation, demonstrating that the wealthy and whites get their policy views represented more than do the poor and minorities (Gilens 2005; Bartels 2008; Griffin and Newman 2008). Furthermore, my results in chapter 4 indicate that preferences for representation follow a similar pattern, with advantaged groups
preferring policy and disadvantaged groups preferring service and allocation (see also Griffin and Flavin 2011). In showing that legislators respond to those preferences, results presented in chapters 5 and 6 suggest that legislators’ policy choices likely reflect the policy opinions of advantaged groups (e.g., the wealthy and whites) because policy representation is what advantaged groups want. In contrast, the policy preferences of disadvantaged constituents (e.g., the poor and racial minorities) are less likely to be represented because those groups prioritize service and allocation more highly.

Of course, this may not be a direct causal relationship. A long history of the disadvantaged not having their policy views represented may lead them to think that service and allocation are the only types of representation available to them. Nonetheless, regardless of its root cause, this preference structure is conducive to the perpetuation of the policy views of advantaged groups having disproportionate influence.

This conclusion is troubling for the ideal of equality in representation because the different dimensions vary in their potential impact on citizens’ lives. Policy-based representation carries long-term benefits, while service and allocation help mostly in the short term. Favorable tax policy, for example, compounds year after year, helping the wealthy long after a driver’s license has been obtained or a road has been repaired. Thus, if a legislator in a wealthy and/or majority-white district responds to demand and focuses on policy, those constituents enjoy more long-term benefits. In contrast, if a legislator in a poor or majority-black district responds to demand and focuses on service and/or allocation, those constituents receive short-term benefits. In other words, the nature of how the different dimensions benefit constituents leads to the somewhat counterintuitive conclusion that responding to district demand for representation may ultimately contribute to the development and persistence of inequality in American political representation.
A APPENDIX TO CHAPTER 4

Survey Instrument

The complete text of the survey instrument is given below. Respondents viewed the election information experiment first, then the two e-mail experiments in random order.

Election Information Experiment

All respondents viewed the introductory text first, then were randomly presented with one of three messages that emphasized either policy, service, or allocation as the legislator’s focus. The legislator’s name (in brackets) was also randomized.

Introductory Text

A non-partisan group in another state is distributing information on the reputations of state legislators to voters for the upcoming elections. Below is an excerpt from the entry for one representative. First, read the description. Then based only on the information that is given, evaluate your feelings toward the legislator as if the legislator were your representative. Select your evaluation on the “feeling thermometer” provided after the description. This measure ranges from 0 to 100, with higher scores indicating a more favorable rating. If you feel neutral toward the legislator, select the score 50.

Policy Treatment

[Rep. [Aaron/Alicia] B. Jones is well known for listening to constituents in [his/her] district on policy issues and voting in line with majority opinion. [He/She] has even voted against the party at times when citizen opinion was on the other side of the issue. However, [he/she] was criticized last year for moving very slowly to address and resolve constituents’ service requests, and is also not known for bringing back much funding to the district like many of [his/her] colleagues.]
Service Treatment

Rep. [Aaron/Alicia] B. Jones is well known for providing excellent constituency service. [He/She] is quick to respond to anyone in [his/her] district who has a problem with a state agency or wants a tour of the state capitol. However, Jones is not known for bringing back much funding to the district like many of [his/her] colleagues and was criticized last year for ignoring the policy views of [his/her] constituents when voting on the floor.

Allocation Treatment

Rep. [Aaron/Alicia] B. Jones is well known for bringing state funding to the district in all sorts of ways. If money is being spent by the state on just about anything—roads, schools, or other public goods—Jones always manages to make sure it benefits [his/her] district as much as possible. However, [he/she] was criticized last year for ignoring the policy views of [his/her] constituents and for moving very slowly to address and resolve constituents’ service requests.

Health Care E-mail Experiment

All respondents viewed the introductory text first, then were randomly presented with either the delegate or trustee treatment message. The legislator’s name (in brackets) was also randomized.

Introductory Text

The next question is based on excerpts from an e-mail conversation between a constituent and a state legislator. Imagine that you are the constituent asking the question. Then based only on the information that is given, evaluate your feelings toward the legislator as if the legislator were your representative. Select your evaluation on the “feeling thermometer” provided after the description. This measure ranges from 0 to 100, with higher scores indicating a more favorable rating. If you feel neutral toward the legislator, select the score 50.

Constituent Question: How do you plan to address the implementation of the recent health care bill in our state?

Delegate Treatment

Dear Constituent,

My own personal opinion is that the bill could do more harm than good. However, my staff conducted a large survey of the district last month and found a great deal of support for the bill. So I plan to work hard to make sure it gets fully implemented in our state.

Sincerely,

**Trustee Treatment**

Dear Constituent,

I realize that a majority of the people in my district support the bill. However, I have access to a lot of information from experts I trust, and after careful reflection I truly believe it is in the district’s best interest for the state to request a waiver of certain sections. I think the state can provide coverage that is just as comprehensive as the federal bill, but at much less cost.

Sincerely,

---

**Road Repair E-mail Experiment**

All respondents viewed the introductory text first, then were randomly presented with either the pork barrel or fair share treatment message. The legislator’s name (in brackets) was also randomized.

**Introductory Text**

The next question is based on excerpts from an e-mail conversation between a constituent and a state legislator. Imagine that you are the constituent asking the question. Then based only on the information that is given, evaluate your feelings toward the legislator as if the legislator were your representative. Select your evaluation on the “feeling thermometer” provided after the description. This measure ranges from 0 to 100, with higher scores indicating a more favorable rating. If you feel neutral toward the legislator, select the score 50.

**Constituent Question:** The roads around town have gotten terrible the last several years. I know you live here too. Can’t you get any funding to fix some potholes?

---

**Pork Barrel Treatment**

Dear Constituent,

Things will start to improve next year. Do you remember the big education bill passed this past summer? I was able to add an amendment just before the final vote that specifically set money aside for improving a few major roads in our district’s borders. It’s a special allotment of bonus money, just for our district! I was able to convince the legislature that we have a real need, which means we will be getting almost twice as much as the average district for repairs. So look for smoother roads in the future!

Sincerely,
**Fair Share Treatment**

Dear Constituent,

Things will start to improve next year. Do you remember the transportation bill passed this past summer? That bill set aside an allotment of several million dollars solely for road repair. Dividing that money quickly became a partisan struggle. However, with the help of several others, I was able to convince the legislature that the money should be divided based on need. The area covering most of our district will be getting almost twice as much as the average district for repairs. So look for smoother roads in the future!

Sincerely,

---

**Experimental Design**

The tables below summarize the randomization of respondents to treatment conditions in each of the survey experiments. Several balance checks (not shown) confirmed that this random assignment was not significantly related to any respondent characteristics or other variables.

**Election Information Experiment**

<table>
<thead>
<tr>
<th>Legislator is good at . . .</th>
<th>Male Legislator</th>
<th>Female Legislator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy</td>
<td>$n = 185$</td>
<td>$n = 153$</td>
</tr>
<tr>
<td>Service</td>
<td>$n = 152$</td>
<td>$n = 171$</td>
</tr>
<tr>
<td>Allocation</td>
<td>$n = 164$</td>
<td>$n = 175$</td>
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</table>

**Health Care E-mail Experiment**

<table>
<thead>
<tr>
<th>Role orientation is . . .</th>
<th>Male Legislator</th>
<th>Female Legislator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delegate</td>
<td>$n = 240$</td>
<td>$n = 272$</td>
</tr>
<tr>
<td>Trustee</td>
<td>$n = 263$</td>
<td>$n = 225$</td>
</tr>
</tbody>
</table>

**Road Repair E-mail Experiment**

<table>
<thead>
<tr>
<th>Role orientation is . . .</th>
<th>Male Legislator</th>
<th>Female Legislator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pork Barrel</td>
<td>$n = 240$</td>
<td>$n = 275$</td>
</tr>
<tr>
<td>Fair Share</td>
<td>$n = 233$</td>
<td>$n = 252$</td>
</tr>
</tbody>
</table>
Baseline Models

Figure A.1 displays the baseline treatment effects, with the election information experiment in panel (a), health care e-mail experiment in panel (b), and road repair e-mail experiment in panel (c). In each graph the x-axis plots the experimental conditions and the y-axis plots the thermometer rating. Solid lines indicate 95% confidence intervals.

The average thermometer rating in the election information experiment is 48 with a standard deviation of 24. Panel (a) shows that the policy treatments produced the highest ratings, on average, with the service and allocation conditions producing slightly lower average ratings. In addition, the male legislator was rated slightly higher than the female. The average policy/male treatment rating is significantly different from the service and allocation ratings and the average policy/female rating is significantly different from service/female and both allocation condition ratings.

Panel (b) shows the baseline health care e-mail experiment results. The average thermometer rating in that case is 51 with a standard deviation of 30. The graph shows that the delegate treatments produced moderately larger ratings, on average, that are statistically significant within the legislator gender conditions; the delegate/male average rating is significantly larger than the trustee/male average rating and delegate/female condition produced an average rating that is significantly larger than did the trustee/female condition. However, the average male condition ratings are not statistically significantly different from the average female condition ratings.

Finally, panel (c) displays results from the road repair e-mail experiment. The average thermometer rating is 59 and the standard deviation is 26. In that case the fair share treatments produced moderately larger ratings, on average, than did the pork barrel conditions, and again these differences are statistically significantly different within the gender conditions. Like the previous two, the male and female conditions did not produce significantly different ratings, on average.
Figure A.1: Baseline Treatment Effects in the Three Survey Experiments

(a) Election Information

(b) Health Care E-mail

(c) Road Repair E-mail

Note: The graphs present the average thermometer rating in each experimental condition for the three survey experiments.
Baseline Differences in Ratings of Legislator Gender by Party

Figure A.2 displays the baseline differences in ratings of the legislator names by respondent partisanship (rating of female legislator − rating of male legislator). In the first two bars of each graph, positive values indicate a higher average rating of the female legislator name and negative values indicate a higher average rating of the male name. The third bar in each graph shows the difference-in-differences (\( \Delta \) Democrats − \( \Delta \) Republicans). All three difference-in-differences estimate indicate that, generally, Democrats and Republicans did not evaluate the two gender names significantly differently, though the difference is marginally significant in the election information experiment.

Complete Model Results

Tables A.1–A.3 present the complete model results, including models with all of the variables and their interactions with treatments. Overall, these tables show that the same patterns reported in the main text generally hold, even when controlling for other factors.

Additional Results and Robustness Checks

This section presents additional results and robustness checks from the analyses presented in the main text.

Results from Direct Questioning

As noted in the main text, I operationalize the theoretical model by measuring preferences for government’s role with observable characteristics. This decision is supported by literature showing that demographics can be used to develop accurate and reliable measures of subnational public opinion (e.g., Park, Gelman, and Bafumi 2004; Lax and Phillips 2009a,b; Pacheco 2011). However, an alternative test of the theory would use direct measures of respondents’ views toward government’s role. This is difficult in a space-constrained survey setting because obtaining such measures would require several questions, such as those asking about whether government should provide social programs, whether ordinary citizens should be more or less involved in government, and others.
Figure A.2: Baseline Differences in Ratings of Legislator Gender by Party

(a) Election Information

(b) Health Care E-mail

(c) Road Repair E-mail

Note: The graphs present differences in ratings of the legislator names by respondent partisanship (rating of female legislator − rating of male legislator), with difference-in-differences ($\Delta$ Democrats − $\Delta$ Republicans).
Table A.1: Complete Results from the Election Information Experiment

<table>
<thead>
<tr>
<th></th>
<th>Income</th>
<th>Employment Status</th>
<th>Education</th>
<th>Ideology</th>
<th>Gender</th>
<th>Race</th>
<th>Full Model</th>
</tr>
</thead>
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<tr>
<td>Intercept</td>
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<td>54.19*</td>
<td>43.04*</td>
<td>52.82*</td>
<td>51.66*</td>
<td>47.63*</td>
<td>40.60*</td>
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<tr>
<td>(2.82)</td>
<td>(1.47)</td>
<td>(3.12)</td>
<td>(3.53)</td>
<td>(2.67)</td>
<td>(3.22)</td>
<td>(6.90)</td>
<td></td>
</tr>
<tr>
<td>Service Treatment</td>
<td>4.56</td>
<td>–8.11*</td>
<td>–7.22</td>
<td>–8.49</td>
<td>–6.18</td>
<td>–2.00</td>
<td>–7.48</td>
</tr>
<tr>
<td>(3.93)</td>
<td>(1.36)</td>
<td>(4.17)</td>
<td>(4.77)</td>
<td>(3.65)</td>
<td>(5.10)</td>
<td>(9.89)</td>
<td></td>
</tr>
<tr>
<td>Allocation Treatment</td>
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<td>–13.43*</td>
<td>1.72</td>
<td>2.89</td>
<td>–8.78*</td>
<td>2.58</td>
<td>22.50*</td>
</tr>
<tr>
<td>(4.07)</td>
<td>(1.81)</td>
<td>(4.15)</td>
<td>(4.61)</td>
<td>(3.65)</td>
<td>(4.71)</td>
<td>(9.17)</td>
<td></td>
</tr>
<tr>
<td>Female Legislator</td>
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<td>–1.63</td>
<td>–1.57</td>
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<td>(1.42)</td>
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<td>Service × Income</td>
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<tr>
<td>(0.51)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td>(0.59)</td>
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<tr>
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<tr>
<td>Service × Unemployed</td>
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<td>Allocation × Unemployed</td>
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<td></td>
<td></td>
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<td></td>
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<td>16.47*</td>
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N: 830 956 956 915 956 956 794
Adjusted R²: 0.07 0.07 0.06 0.08 0.04 0.06 0.16

Note: Cell entries report OLS coefficients and standard errors (in parentheses) from the election information experiment. The dependent variable is the thermometer rating of the legislator. Data are weighted to reflect population marginals from the American Community Survey (see Rivers 2006). * p < 0.05 (two-tailed).
Table A.2: Complete Results from the Health Care E-mail Experiment

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N 920 936 901 901 784
Adjusted R² 0.19 0.18 0.20 0.20 0.24

Note: Cell entries report OLS coefficients and standard errors (in parentheses) from the health care e-mail experiment. The dependent variable is the thermometer rating of the legislator. Data are weighted to reflect population marginals from the American Community Survey (see Rivers 2006). * p < 0.05 (two-tailed).
Table A.3: Complete Results from the Road Repair E-mail Experiment

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| N                        | 841     | 970               | 970       | 928      | 804        |
| Adjusted R²              | 0.04    | 0.04              | 0.05      | 0.10     | 0.13       |

*Note*: Cell entries report OLS coefficients and standard errors (in parentheses) from the road repair e-mail experiment. The dependent variable is the thermometer rating of the legislator. Data are weighted to reflect population marginals from the American Community Survey (see Rivers 2006). * p < 0.05 (two-tailed).
Despite this, two questions on the CCES asked respondents “how good is government?” and “how powerful is government?” Answers were given on 0–100 scales, with 0 signifying “awful” or “weak,” respectively, and 100 meaning “good” or “powerful.” I consider these questions too vague to form the sole test of my theoretical framework, but they are good enough to use as a robustness check. I do so in Figure A.3.

For the election information experiment, I use the “good” question as a measure of the extent to which respondents think government should provide social programs and, in general, be an active provider in citizens’ lives. I expect that those whose preference is for minimal government gave lower ratings on this measure, and those who prefer larger, active government provided higher ratings. My theoretical claim discussed in the main text predicts that those who think government is good rate district-centric representation—service and allocation—higher than do those who think government is bad. Panel (a) in Figure A.3 shows support for this expectation—respondents at the 95th percentile of the “good” measure rate the service and allocation conditions 12 and 10 points higher, on average, than do respondents at the 5th percentile of that variable. These differences are significant at the 0.05 and 0.10 level, respectively.

Next, for the health care e-mail experiment, I use the “powerful” question as a measure of egalitarian versus traditionalistic viewpoints. I expect respondents who view government as weak see a need for ordinary citizens to play a controlling role in government, while those who view government as powerful are more apt to defer to elites. Thus, my theory predicts that those who see government as weak (powerful) prefer delegates (trustees). Panel (b) shows partial support for this expectation. Controlling again for health care opinion, respondents at the 5th percentile of the “powerful” measure rate the delegate condition higher, on average, than do those at the 95th percentile (8 points, \( p < 0.05 \)). Furthermore, those who view government as powerful rate the trustee condition higher than the delegate condition, on average (19 points, \( p < 0.05 \)), but the difference between conditions for those
Figure A.3: Effects of Respondent Views on Whether the Government is Good or Bad (Election Information/Road Repair E-mail) and Whether the Government is Weak or Powerful (Health Care E-mail)

(a) Election Information ("Is government good?")

(b) Health Care E-mail ("Is government powerful?")

(c) Road Repair E-mail ("Is government good?")

Note: The graphs present the average thermometer rating in each experimental condition by respondent views on whether the government is good or bad (panels a and c) and whether the government is weak or powerful (panel b). * Difference between two same-colored bars is statistically significant at $p < 0.05$. $+$ $p < 0.10$ (two-tailed).
who see government as weak is not statistically significant.

Finally, I again use the “good” measure in the road repair e-mail experiment as a measure of the extent to which respondents think government should be active in citizens’ lives, particularly in the political-economic context discussed in the main text. My theory predicts that the difference in evaluations of the pork barrel and fair share conditions should be large in favor of fair share for those who think government is bad, and smaller for those who think it is good. Panel (c) shows results consistent with that prediction. Respondents at the 95th percentile of the “good” measure rate allocation higher, on average, than do those at the 5th percentile in both conditions (29 and 13 points, respectively, $p < 0.05$). Additionally, there is no statistically discernible difference between the average ratings of the two conditions among those who view government as good. In contrast, the average difference between conditions for those who view government as bad is a statistically significant 19 points.

Overall, neither demographics and other characteristics nor these questions about government are perfect measures of preferences for government’s role. However, the robustness of results across both approaches bolsters my confidence in the empirical support for the theory in these data.

Additional Comparisons in the Election Information Experiment

Figure A.4 shows the effects of income and ideology in the election information experiment, but with less extreme values for the comparisons. Panel (a) shows a comparison between a respondent earning $25,000/year and one earning $100,000/year (the main text shows $10,000 versus $150,000). Panel (b) shows a comparison between a liberal and a conservative (the main text shows strong liberal versus strong conservative). Note that the same pattern of results shown in the main text holds in this example as well.
Additional Controls in the Health Care E-mail Experiment

Figure A.5 shows results with additional controls from the health care e-mail experiment. Panel (a) shows the results for ideology, but with controls for both health care opposition and partisanship and their interactions with each condition. In panel (b) I control for health care opposition, party, their interactions with each condition, and a three-way interaction between opposition, party, and the trustee condition. I use this specification to guard against a heterogeneous treatment effect—that Republicans who are opposed to health care favor the trustee condition more strongly than do Democrats who support health care favor the delegate.

Between the main text and these results, I show three different ways of controlling for the confounding effect of health care opinion. The effect weakens somewhat with the additional controls in Figure A.5 due to collinearity between the independent variables,
Figure A.5: Additional Controls in the Health Care E-mail Experiment

(a) Ideology (Control: HC Opposition, Party)

(b) Ideo. (Control: HC Opp., Party, HC Opp. × Party)

Note: The graphs present the average thermometer rating in each experimental condition by the minimum and maximum values of ideology and party. Panel (a) shows the results for ideology, controlling for opposition to the health care bill, partisanship, and their interactions with the trustee treatment. Panel (b) includes a control for opposition to the health care bill, partisanship, and a three-way interaction between opposition, partisanship, and the trustee treatment. * Difference between two same-shaded bars is statistically significant at $p < 0.05$ (two-tailed).

but the same general pattern emerges: liberals prefer delegates and conservatives prefer trustees.

Additional Results in the Road Repair E-mail Experiment

Figure A.6 shows the effects of employment status and education in the road repair e-mail experiment. Note that these results show the same pattern as do the effects of income presented in the main text. In panel (a) there is no statistically discernible difference between average ratings of the two types by the unemployed, but the employed rate the fair share legislator 9 points higher, on average, than they rate the pork barrel legislator (significant at $p < 0.05$). The same finding holds with education, as depicted in panel (b) of
Figure A.6. In that case, both respondents with high school diplomas and those with post-graduate training prefer the fair share condition over the pork barrel condition, on average. However, this difference is small and statistically nonsignificant among those with low education (3 points) and large and statistically significant among highly-educated respondents (20 points).

Figure A.6: Additional Economic Factors in the Road Repair E-mail Experiment

![Graphs showing thermometer ratings for employment status and education]

Note: The graphs present the average thermometer rating in each experimental condition by the minimum and maximum values of each trait. * Difference between two same-shaded bars is statistically significant at $p < 0.05$ (two-tailed).

Figure A.7 shows the effects of income, education, and ideology in the road repair e-mail experiment, but with less extreme values for the comparisons. Panel (a) shows a comparison between a respondent earning $25,000/year and one earning $100,000/year (the main text shows $10,000 versus $150,000). Panel (b) shows a respondent with a high school diploma and one with a college degree (Figure A.6 shows a high school graduate versus a respondent with post-graduate training). Panel (c) shows a comparison between a liberal and a conservative (the main text shows strong liberal versus strong conservative).
Figure A.7: Effects of Income ($25,000/year vs. $100,000/year), Education (High School vs. College), and Ideology (Liberal vs. Conservative) in the Road Repair E-mail Experiment

(a) Income

(b) Education

(c) Ideology

Note: The graphs present the average thermometer rating in each experimental condition comparing $25,000 and $100,000 income earners (panel a), high school and college graduates (panel b), and liberals and conservatives (panel c). * Difference between two same-shaded bars is statistically significant at $p < 0.05$ (two-tailed).
Figure A.8 shows difference-in-differences between ratings of the two experimental conditions in the road repair e-mail experiment by respondent traits ($\Delta$ Pork Barrel $-$ $\Delta$ Fair Share). In all four cases the difference-in-differences is positive and significant. For example, the difference in evaluations of the pork barrel and fair share conditions among wealthy respondents is statistically significantly larger than the same difference among poor respondents ($t = 4.34$).

Figure A.8: Difference-in-Differences in the Road Repair E-mail Experiment

Note: The graph presents difference-in-differences between the average thermometer rating in each experimental condition by the minimum and maximum values of each trait ($\Delta$ Pork Barrel $-$ $\Delta$ Fair Share). Numbers above each bar are $t$-statistics.

Variable Descriptions and Summary Statistics

Table A.4 presents variable descriptions and summary statistics and Table A.5 reports pairwise correlations between the independent variables.
Table A.4: Chapter 4 Variable Descriptions and Summary Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideology</td>
<td>Strong Liberal–Strong Conservative; 7-point scale</td>
<td>4.52</td>
<td>1.86</td>
</tr>
<tr>
<td>Party</td>
<td>Strong Democrat–Strong Republican; 7-point scale</td>
<td>4.00</td>
<td>2.26</td>
</tr>
<tr>
<td>Income</td>
<td>&lt; $10K– ≥ $150K; 14-point scale</td>
<td>8.04</td>
<td>3.51</td>
</tr>
<tr>
<td>Education</td>
<td>No HS–Post-graduate; 6-point scale</td>
<td>3.78</td>
<td>1.42</td>
</tr>
<tr>
<td>Black</td>
<td>Yes = 119; No = 881</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Female</td>
<td>Yes = 531; No = 469</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Unemployed</td>
<td>Yes = 73; No = 934</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Uses Medicare/Medicaid</td>
<td>Yes = 294; No = 706</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Oppose Health Care Bill</td>
<td>Yes = 523; No = 471</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

*Note: Cell entries report descriptions and summary statistics (mean and standard deviation) for the variables used in the analyses.*
Table A.5: Variable Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Ideology</th>
<th>Party</th>
<th>Income</th>
<th>Education</th>
<th>Black</th>
<th>Female</th>
<th>Unemployed</th>
<th>Use Gov. HC</th>
<th>Oppose HC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideology</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Party</td>
<td>0.71</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>0.13</td>
<td>0.14</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>−0.15</td>
<td>−0.08</td>
<td>0.31</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>−0.12</td>
<td>−0.31</td>
<td>−0.15</td>
<td>−0.05</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>−0.13</td>
<td>−0.10</td>
<td>−0.23</td>
<td>−0.12</td>
<td>0.07</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>−0.04</td>
<td>−0.06</td>
<td>−0.16</td>
<td>−0.07</td>
<td>0.03</td>
<td>0.03</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Gov. HC</td>
<td>0.04</td>
<td>0.02</td>
<td>−0.24</td>
<td>−0.15</td>
<td>0.02</td>
<td>0.03</td>
<td>−0.05</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Oppose HC</td>
<td>0.65</td>
<td>0.70</td>
<td>0.15</td>
<td>−0.15</td>
<td>−0.25</td>
<td>−0.13</td>
<td>−0.07</td>
<td>0.05</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note: Cell entries report pairwise correlations between the independent variables used in the analyses.*
Survey Instrument

The complete text of the survey experiments is given below. Respondents viewed the constituent e-mail experiment first, then the list experiment.

Constituent E-mail Experiment

All respondents viewed the introductory text first, then were randomly presented with three messages: one each about policy, service, and allocation. The constituent’s name was also randomized to signal gender and race (white, black, Latino/a). Recall that the data presented in the main text include only the first treatment message each respondent viewed. I report results from this between-subjects design rather than the within-subjects design to avoid problems from respondents learning the aim of the study as they viewed and responded to the three messages in succession.

Introductory Text

You will now see a series of three e-mail messages sent to you from hypothetical constituents. In each one, first read the message. Then answer two questions about each one. First, evaluate the priority level you or your office would give this e-mail if it were sent to you today. Select your evaluation by clicking on a number on the “priority scale” under the message. This measure ranges from 0 to 100, with 0 indicating lowest priority and 100 indicating highest priority. If you would give the message average priority, select the score 50. Second, evaluate how likely you would be able to satisfy the constituent.
**Policy Treatment**

- Male names: Connor Fredericks, Tyrone Baker, Juan Lopez
- Female names: Molly Wollsteiner, Shanice Jackson, Camila Garcia

Dear Legislator,

My name is [Name] and I want to ask you about public education in our state. I’ve been hearing how teachers might only get raises if their students get good test scores. Won’t that just make teachers afraid to teach in poor schools? What do you think about this, and how do you see it affecting our state?

Thanks,

[Name]

**Service Treatment**

- Male names: Jacob Nichols, DeAndre Moore, Antonio Ruiz
- Female names: Amy Schneider, Tasheka Robinson, Gabriela Mendez

Dear Legislator,

My name is [Name] and I am having some problems getting a driver’s license. The people at the driver’s license office say I can’t prove I am a resident of the state, but that’s not true! I am a resident of the state! I am really tired of dealing with this. Is there anything you can do for me?

Thanks,

[Name]

**Allocation Treatment**

- Female names: Claire Neilsson, Denisha Jones, Marina Gutierrez

Dear Legislator,

My name is [Name] and I am concerned about whether our district will be getting any money for road repair this year. I am so tired of all the potholes! Will we be getting any state money, or maybe some Federal stimulus money? I know you have to drive on these roads too!

Thanks,

[Name]
After reading the e-mail, respondents answered the following two questions:

(1) What priority level would you give this e-mail? You may choose any number from 0 to 100. 0 = Lowest priority; 50 = Average priority; 100 = Highest priority

(2) Based only on the information given in the e-mail, how likely is it that you could satisfy this constituent?
   - Very Unlikely
   - Unlikely
   - Somewhat Unlikely
   - Somewhat Likely
   - Likely
   - Very Likely

Experimental Design

The table below summarizes the randomization of respondents to treatment conditions in the first message viewed in the constituent e-mail experiment. This is the between-subjects design described in the main text (see the replication materials for the within-subjects data, in which each subject viewed a policy, service, and allocation message). Several balance checks (not shown) confirmed no systematic patterns in treatment assignments due to several respondent traits.

<table>
<thead>
<tr>
<th>Constituent gender/race . . .</th>
<th>Policy E-mail</th>
<th>Service E-mail</th>
<th>Allocation E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Male</td>
<td>$n = 37$</td>
<td>$n = 51$</td>
<td>$n = 57$</td>
</tr>
<tr>
<td>Black Male</td>
<td>$n = 51$</td>
<td>$n = 57$</td>
<td>$n = 53$</td>
</tr>
<tr>
<td>Latino Male</td>
<td>$n = 40$</td>
<td>$n = 49$</td>
<td>$n = 51$</td>
</tr>
<tr>
<td>White Female</td>
<td>$n = 63$</td>
<td>$n = 44$</td>
<td>$n = 67$</td>
</tr>
<tr>
<td>Black Female</td>
<td>$n = 50$</td>
<td>$n = 53$</td>
<td>$n = 59$</td>
</tr>
<tr>
<td>Latina Female</td>
<td>$n = 56$</td>
<td>$n = 46$</td>
<td>$n = 40$</td>
</tr>
</tbody>
</table>
List Experiment

All respondents viewed the introductory text first, then were randomly assigned to the control or treatment group.

Introductory Text

Next you will see a list of some activities that occupy political representatives as part of their job. Think about HOW MANY of these items are important to you as a legislator (or to the legislator you work for). You will not need to say which ones, just how many.

Control Group

The control group ($n = 583$) saw the five non-sensitive items in random order:

1. Learning about constituents’ opinions in order to better represent their views.
2. Helping constituents who have personal problems with government agencies.
3. Making sure the district gets its fair share of government money and projects.
4. Preparing to run for higher office, such as Governor or the U.S. Congress.
5. Representing the views of interest groups.

Treatment Group

The treatment group ($n = 516$) saw the same non-sensitive items as the control group as well as the sensitive item, all in random order:

1. Learning about constituents’ opinions in order to better represent their views.
2. Helping constituents who have personal problems with government agencies.
3. Making sure the district gets its fair share of government money and projects.
4. Preparing to run for higher office, such as Governor or the U.S. Congress.
5. Representing the views of interest groups.
6. Making sure that people who are of the same gender or race as you have their voices heard in government.
Sample Characteristics

Here I provide a detailed look at the representativeness of the sample, including a comparison to the population proportions of chamber and party membership, gender, and race as well as full state-level response rates.

Sample versus Population Comparisons on Key Respondent Variables

Table B.1 compares sample proportions by party, gender, race, and chamber to proportions of those variables in the population of American state legislators in 2011. It shows that the sample is reasonably representative of the population of state legislators, though there was some underrepresentation of minorities. Women, Democrats, and members of the lower chambers were slightly overrepresented compared to their respective population proportions, while blacks and Latinos were underrepresented.

Table B.1: Sample versus Population Comparisons on Key Respondent Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Proportion</th>
<th>Population Proportion</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Republican</td>
<td>0.52</td>
<td>0.54</td>
<td>−0.02</td>
</tr>
<tr>
<td>Lower Chamber</td>
<td>0.76</td>
<td>0.73</td>
<td>+0.03*</td>
</tr>
<tr>
<td>Female</td>
<td>0.29</td>
<td>0.23</td>
<td>+0.06*</td>
</tr>
<tr>
<td>Black</td>
<td>0.05</td>
<td>0.09</td>
<td>−0.04*</td>
</tr>
<tr>
<td>Latino/a</td>
<td>0.02</td>
<td>0.03</td>
<td>−0.01*</td>
</tr>
</tbody>
</table>

*Sample proportion is statistically significantly different from the population proportion (p < 0.05).

Note: Cell entries report sample and population proportions of each variable and the differences between the two.

Full State-Level Response Rates

Table B.2 presents the full state-level response rates from the 1,175 respondents who reached the end of the survey. The first column reports the number of responses from each state and the second column reports the total number of legislators in the state’s legislature. The third column reports the state-level response rate (i.e., column 1 ÷ column 2). The fourth column reports the proportion of the usable sample from each state, while the fifth gives the proportion of the entire population of state legislators (7,382) from that state’s
Table B.2: Full State-Level Response Rates

<table>
<thead>
<tr>
<th>State</th>
<th>Sample Size</th>
<th>Legislature Size</th>
<th>State Response Rate</th>
<th>Sample Proportion</th>
<th>Population Proportion</th>
<th>Sample/Pop. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>24</td>
<td>140</td>
<td>0.17</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Alaska</td>
<td>15</td>
<td>60</td>
<td>0.25</td>
<td>0.01</td>
<td>0.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Arizona</td>
<td>13</td>
<td>90</td>
<td>0.14</td>
<td>0.01</td>
<td>0.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Arkansas</td>
<td>27</td>
<td>135</td>
<td>0.20</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>California</td>
<td>8</td>
<td>120</td>
<td>0.07</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Colorado</td>
<td>22</td>
<td>100</td>
<td>0.22</td>
<td>0.02</td>
<td>0.01</td>
<td>2.00</td>
</tr>
<tr>
<td>Connecticut</td>
<td>20</td>
<td>187</td>
<td>0.11</td>
<td>0.02</td>
<td>0.03</td>
<td>0.67</td>
</tr>
<tr>
<td>Delaware</td>
<td>19</td>
<td>62</td>
<td>0.31</td>
<td>0.02</td>
<td>0.01</td>
<td>2.00</td>
</tr>
<tr>
<td>Florida</td>
<td>15</td>
<td>160</td>
<td>0.09</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Georgia</td>
<td>23</td>
<td>236</td>
<td>0.10</td>
<td>0.02</td>
<td>0.03</td>
<td>0.67</td>
</tr>
<tr>
<td>Hawaii</td>
<td>9</td>
<td>76</td>
<td>0.12</td>
<td>0.01</td>
<td>0.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Illinois</td>
<td>31</td>
<td>177</td>
<td>0.18</td>
<td>0.03</td>
<td>0.02</td>
<td>1.50</td>
</tr>
<tr>
<td>Indiana</td>
<td>21</td>
<td>150</td>
<td>0.14</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Iowa</td>
<td>28</td>
<td>150</td>
<td>0.19</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Kansas</td>
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<td>165</td>
<td>0.15</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Kentucky</td>
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<td>138</td>
<td>0.10</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Louisiana</td>
<td>26</td>
<td>144</td>
<td>0.18</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Maine</td>
<td>49</td>
<td>186</td>
<td>0.26</td>
<td>0.04</td>
<td>0.03</td>
<td>1.33</td>
</tr>
<tr>
<td>Maryland</td>
<td>33</td>
<td>188</td>
<td>0.18</td>
<td>0.03</td>
<td>0.03</td>
<td>1.00</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>43</td>
<td>200</td>
<td>0.22</td>
<td>0.04</td>
<td>0.03</td>
<td>1.33</td>
</tr>
<tr>
<td>Michigan</td>
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<td>148</td>
<td>0.16</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Minnesota</td>
<td>30</td>
<td>201</td>
<td>0.15</td>
<td>0.03</td>
<td>0.03</td>
<td>1.00</td>
</tr>
<tr>
<td>Mississippi</td>
<td>13</td>
<td>174</td>
<td>0.07</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Missouri</td>
<td>35</td>
<td>197</td>
<td>0.18</td>
<td>0.03</td>
<td>0.03</td>
<td>1.00</td>
</tr>
<tr>
<td>Montana</td>
<td>17</td>
<td>150</td>
<td>0.11</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Nebraska</td>
<td>11</td>
<td>49</td>
<td>0.22</td>
<td>0.01</td>
<td>0.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Nevada</td>
<td>15</td>
<td>63</td>
<td>0.24</td>
<td>0.01</td>
<td>0.01</td>
<td>1.00</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>114</td>
<td>424</td>
<td>0.27</td>
<td>0.10</td>
<td>0.06</td>
<td>1.67</td>
</tr>
<tr>
<td>New Jersey</td>
<td>13</td>
<td>120</td>
<td>0.11</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>New Mexico</td>
<td>14</td>
<td>112</td>
<td>0.13</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>New York</td>
<td>25</td>
<td>212</td>
<td>0.12</td>
<td>0.02</td>
<td>0.03</td>
<td>0.67</td>
</tr>
<tr>
<td>North Carolina</td>
<td>48</td>
<td>170</td>
<td>0.28</td>
<td>0.04</td>
<td>0.02</td>
<td>2.00</td>
</tr>
<tr>
<td>North Dakota</td>
<td>40</td>
<td>141</td>
<td>0.28</td>
<td>0.03</td>
<td>0.02</td>
<td>1.50</td>
</tr>
<tr>
<td>Ohio</td>
<td>18</td>
<td>132</td>
<td>0.14</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>20</td>
<td>149</td>
<td>0.13</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Oregon</td>
<td>27</td>
<td>90</td>
<td>0.30</td>
<td>0.02</td>
<td>0.01</td>
<td>2.00</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>18</td>
<td>253</td>
<td>0.07</td>
<td>0.02</td>
<td>0.03</td>
<td>0.67</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>9</td>
<td>113</td>
<td>0.08</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Tennessee</td>
<td>17</td>
<td>132</td>
<td>0.13</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Utah</td>
<td>22</td>
<td>104</td>
<td>0.21</td>
<td>0.02</td>
<td>0.01</td>
<td>2.00</td>
</tr>
<tr>
<td>Vermont</td>
<td>56</td>
<td>180</td>
<td>0.31</td>
<td>0.05</td>
<td>0.02</td>
<td>2.50</td>
</tr>
<tr>
<td>Virginia</td>
<td>34</td>
<td>140</td>
<td>0.24</td>
<td>0.03</td>
<td>0.02</td>
<td>1.50</td>
</tr>
<tr>
<td>Washington</td>
<td>24</td>
<td>147</td>
<td>0.16</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>West Virginia</td>
<td>31</td>
<td>134</td>
<td>0.23</td>
<td>0.03</td>
<td>0.02</td>
<td>1.50</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>10</td>
<td>132</td>
<td>0.08</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Wyoming</td>
<td>26</td>
<td>90</td>
<td>0.29</td>
<td>0.02</td>
<td>0.01</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Note: Cell entries report the full state-level response rates. The first column reports the number of responses from each state and the second column reports the total number of legislators in the state’s legislature. The third column reports the state-level response rate (i.e., column 1 ÷ column 2). The fourth column reports the proportion of the usable sample from each state, while the fifth gives the proportion of the entire population of state legislators (7,382) from that state’s legislature. Finally, the sixth column reports the ratio of the sample proportion to the population proportion (i.e., column 4 ÷ column 5). States with numbers greater than one are overrepresented compared to their population value, while states with values smaller than one are underrepresented.

Baseline Models

Figure B.1 displays the baseline treatment effects from the constituent e-mail experiment. In each graph the x-axis plots the experimental conditions and the y-axis plots the expected priority rating. Within each message treatment (policy, service, and allocation),
results are given for the male and female constituent names. Panel (a) gives results for the white constituent names, panel (b) gives results for the black constituent names, and panel (c) gives results for the Latino/a constituent names. Solid lines indicate 95% confidence intervals.

The average priority rating in the constituent e-mail experiment is 71 with a standard deviation of 22. The graphs show that on average, legislators rated the service condition a higher priority than the policy condition and the policy condition slightly higher than the allocation condition. All three panels show very small differences in the average response to the different racial names. Furthermore, within each panel there are only small differences in priority ratings by the different constituent genders.

**Full Model Results**

Table B.3 presents complete model results from the constituent e-mail experiment. Columns titled “Main” represent models used to produce the figures seen in the main text. Columns titled “Controls” include controls for party, gender, and race. The final column shows the full model with all covariates.

Figure B.2 shows the effects of legislator party, gender, and race on the average priority ratings. Results conform to predictions outlined in the main text. Panel (a) shows that Democrats rate the service and allocation conditions 6 and 4 points higher, on average, compared to the ratings of Republicans ($p < 0.05$). Female legislators’ average rating of the allocation condition is 7 points higher than the average rating of male legislators ($p < 0.05$), though there is virtually no difference in the service condition. Finally, black legislators rate the service and allocation conditions significantly higher than do white legislators, on average (8 and 9 points, $p < 0.05$), and black legislators’ average rating of the service and allocation conditions is significantly higher than their average rating of the policy condition (11 and 11 points).
Figure B.1: Baseline Treatment Effects in the Constituent E-mail Experiment

(a) White Constituent
(b) Black Constituent
(c) Latino/a Constituent

Note: The graphs present differences in priority ratings as a function of the treatments. In each graph the x-axis plots the experimental conditions and the y-axis plots the expected priority rating. Within each message treatment (policy, service, and allocation), results are given for the male and female constituent names. Panel (a) gives results for the white constituent names, panel (b) gives results for the black constituent names, and panel (c) gives results for the Latino/a constituent names. Solid lines indicate 95% confidence intervals.
<table>
<thead>
<tr>
<th>Models</th>
<th>Professionalism</th>
<th>Men Legislators</th>
<th>Women Legislators</th>
<th>Men by Women</th>
<th>Black Service</th>
<th>White Service</th>
<th>Allocation</th>
<th>Service Allocation</th>
<th>Satisfy</th>
<th>Full Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>68.64</td>
<td>68.43</td>
<td>68.72</td>
<td>68.72</td>
<td>69.43</td>
<td>69.43</td>
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<td>69.43</td>
<td>62.47</td>
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<td></td>
<td></td>
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<td>Main Controls</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionalism</td>
<td></td>
<td></td>
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<td></td>
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</tr>
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<td>District</td>
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</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Black</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electoral</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ambition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Cell entries report linear MLM coefficients and standard errors (in parentheses) from the constituent e-mail experiment. The final column shows the full model with all covariates. Lower Bayesian Information Criterion (BIC) values indicate better model fit. Data are weighted via raking to reflect state legislator population marginals on partisanship, chamber, gender, and race (see Kalton and Flores-Cervantes 2003).
Figure B.2: Effects of Individual-Level Factors in the Constituent E-mail Experiment

(a) Legislator Party

(b) Legislator Gender

(c) Legislator Race

Note: The graphs present the average priority rating in each experimental condition for Republican versus Democratic legislators (panel a), male versus female legislators (panel b), and white versus black legislators (panel c). * Difference between two same-shaded bars is statistically significant at $p < 0.05$ (two-tailed).
Table B.4: List Experiment Difference-in-Means Tests by Gender and Race

<table>
<thead>
<tr>
<th></th>
<th>Treatment</th>
<th>Control</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Men</td>
<td>3.42</td>
<td>3.05</td>
<td>0.36*</td>
</tr>
<tr>
<td>All Women</td>
<td>3.62</td>
<td>3.36</td>
<td>0.26*</td>
</tr>
<tr>
<td>All Whites</td>
<td>3.42</td>
<td>3.11</td>
<td>0.31*</td>
</tr>
<tr>
<td>All Blacks</td>
<td>4.45</td>
<td>3.45</td>
<td>0.99*</td>
</tr>
</tbody>
</table>

*Note: Cell entries report treatment and control group means and differences. The control group viewed a list of five non-sensitive items. The treatment group viewed a list with six items: the same five non-sensitive items as the control group as well as the sensitive item. *p < 0.05 (two-tailed).

List Experiment Difference-in-Means Results

Table B.4 presents difference-in-means results from the list experiment: the mean number of items as well as differences in means between treatment and control by gender and race. Notice that the difference between treatment and control is statistically significantly different at the 0.05 level for both men and women. However, the difference in means is smaller for women (0.26) than it is for men (0.36), and the two estimates are not significantly different from one another. The difference in mean number of items between whites in treatment and control is a statistically significant 0.31. For blacks in the sample the number jumps to a difference of nearly 1. Due to the small sample size of black respondents, this estimate has a large standard error (the lower 95% confidence bound is 0.53). But it is statistically significantly different from the estimate for whites (0.31, upper 95% confidence bound of 0.43).

Variable Descriptions and Summary Statistics

Table B.5 presents variable descriptions and summary statistics and Table B.6 reports pairwise correlations between the independent variables.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professionalism</td>
<td>$100 \times \left( \frac{\text{Squire (2007) index}}{\ln(2005 \text{ district population})} \right)$</td>
<td>1.51</td>
<td>0.91</td>
</tr>
<tr>
<td>District Magnitude</td>
<td>Number of representatives in district (both chambers in states where districts match)</td>
<td>1.55</td>
<td>1.45</td>
</tr>
<tr>
<td>District Median Income</td>
<td>$1000 \times \left( \frac{\ln(2000 \text{ district median income})}{\ln(2000 \text{ state median income})} \right)$</td>
<td>1053.25</td>
<td>73.64</td>
</tr>
<tr>
<td>District % Black</td>
<td>2000 data</td>
<td>8.90</td>
<td>15.12</td>
</tr>
<tr>
<td>Electoral Competition</td>
<td>Two-party vote share in last election</td>
<td>70.29</td>
<td>18.02</td>
</tr>
<tr>
<td>Ambition</td>
<td>Yes = 27; No = 1,067</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Likelihood of Satisfying Request</td>
<td>Very unlikely–Very likely; 6-point scale</td>
<td>4.02</td>
<td>1.26</td>
</tr>
<tr>
<td>Party</td>
<td>Republican = 608; Democrat = 556; Non-partisan = 11</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Gender</td>
<td>Male = 856; Female = 319</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Race</td>
<td>White = 1,095; Black = 57; Latino/a = 23</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Chamber</td>
<td>Upper = 286; Lower = 889</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Seniority</td>
<td>Consecutive years served in legislature</td>
<td>5.97</td>
<td>6.29</td>
</tr>
</tbody>
</table>

**Note:** Cell entries report descriptions and summary statistics (mean and standard deviation) for the variables used in the analyses. Demographic data come from the 2000 U.S. Census unless otherwise noted.
Table B.6: Chapter 5 Variable Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Pro.</th>
<th>Magnitude</th>
<th>Income</th>
<th>% Black</th>
<th>Competition</th>
<th>Ambition</th>
<th>Satisfy</th>
<th>Rep.</th>
<th>Female</th>
<th>White</th>
<th>Black</th>
<th>Latino/a</th>
<th>L. Chamber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pro.</td>
<td>-0.28*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Magnitude</td>
<td>0.06</td>
<td>0.10*</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>-0.09*</td>
<td>-0.26*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Black</td>
<td>0.07*</td>
<td>0.16*</td>
<td>0.08*</td>
<td>-0.23*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition</td>
<td>-0.13*</td>
<td>0.16*</td>
<td>0.08*</td>
<td>-0.23*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambition</td>
<td>0.00</td>
<td>0.01</td>
<td>0.06</td>
<td>-0.01</td>
<td>-0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfy</td>
<td>0.10*</td>
<td>-0.05</td>
<td>-0.02</td>
<td>0.05</td>
<td>0.01</td>
<td>0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rep.</td>
<td>-0.14*</td>
<td>0.06*</td>
<td>0.29*</td>
<td>0.02</td>
<td>0.02</td>
<td>-0.14*</td>
<td>-0.05</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>0.02</td>
<td>-0.03</td>
<td>-0.02</td>
<td>0.07*</td>
<td>0.02</td>
<td>0.02</td>
<td>-0.23*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>-0.07*</td>
<td>0.06*</td>
<td>0.24*</td>
<td>-0.58*</td>
<td>0.23*</td>
<td>0.02</td>
<td>-0.08*</td>
<td>-0.23</td>
<td>-0.12*</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Black</td>
<td>0.07*</td>
<td>-0.05</td>
<td>-0.24*</td>
<td>0.68*</td>
<td>-0.22*</td>
<td>-0.04</td>
<td>0.06</td>
<td>-0.22</td>
<td>0.09*</td>
<td>-0.84*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino/a</td>
<td>0.02</td>
<td>-0.04</td>
<td>-0.07*</td>
<td>0.00</td>
<td>-0.07*</td>
<td>0.02</td>
<td>0.05</td>
<td>-0.07*</td>
<td>0.07*</td>
<td>-0.52*</td>
<td>-0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L. Chamber</td>
<td>-0.01</td>
<td>0.08*</td>
<td>0.04</td>
<td>-0.06*</td>
<td>0.06*</td>
<td>0.02</td>
<td>-0.04</td>
<td>0.06</td>
<td>0.03</td>
<td>0.04</td>
<td>-0.05</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Seniority</td>
<td>0.07*</td>
<td>-0.02</td>
<td>-0.01</td>
<td>0.14*</td>
<td>-0.26*</td>
<td>-0.03</td>
<td>0.05</td>
<td>-0.18</td>
<td>0.06*</td>
<td>-0.05</td>
<td>0.06*</td>
<td>-0.01</td>
<td>-0.05</td>
</tr>
</tbody>
</table>

Note: Cell entries report pairwise correlations between the independent variables used in the analyses. * p < 0.05 (two-tailed).
C APPENDIX TO CHAPTER 6

Website Coding Instructions

The exact coding instructions used to generate the dependent variables presented in the main text are given below.¹ These instructions were presented in an online survey. Coders were randomly assigned to a set of websites and took the survey for every website. A total of 6 coders coded at least some of the websites according to these instructions: two main coders who coded 45% of the websites and 4 reliability coders who coded the other 55% plus an overlap of 7% for intercoder reliability purposes (see below).

Front Page

The dependent variables from the front page models were generated by asking coders to assess whether the website contained any mention of policy, service, allocation, or descriptive items on the front page.

Policy

Does the front page mention any policy issues by name in a list or in a text description (e.g., “Education,” “Environment” “Health Care,” etc...)?

- Yes
- No
- Unsure

¹Many variables were coded, and thus the entire set of coding instructions was much longer than reported here. The full set of instructions is available upon request.
### Service

Does the front page contain an offer to assist constituents, useful links, district maps, voter information, scholarship links, or any other item that could be beneficial to constituents?

- Yes
- No
- Unsure

### Allocation

Does the front page mention any funding the legislator secured for the district?

- Yes
- No
- Unsure

### Descriptive

1. Does the front page have a picture of the legislator?

   - Yes
   - No
   - Unsure

2. [If (1) = “Yes”]: Can you identify the legislator with any of the following groups from the picture?

   - Racial
   - Gender
   - Sexual preference
   - Party
   - Military
   - Public servants (e.g., police, fire, EMS, teachers, etc. . . )
   - Religion
   - Other (describe)
   - None
Descriptive (continued)

(3) Does the front page have biographical information about the legislator?

- Yes
- No
- Unsure

(4) [If (3) = “Yes”]: Can you identify the legislator with any of the following groups from the biographical information?

- Racial
- Gender
- Sexual preference
- Party
- Military
- Public servants (e.g., police, fire, EMS, teachers, etc...)
- Religion
- Other (describe)
- None

Number of Items

The dependent variables from the number of items models were generated by asking coders to count the policy, service, allocation, and descriptive items on the site. As discussed in the main text, the number of descriptive items was generally small and thus is better conceptualized as dichotomous. Consequently, I combined the measure with the number of descriptive items from the front page, then created an indicator for whether the site as a whole contained one or more gender or racial item.

Policy

(1) Does the site have a page about policy issues (or multiple pages)? If there are multiple pages, answer the following questions based on all of them.

- Yes
- No

(2) [If (1) = “Yes”]: How many issues does/do the page(s) mention?

- [Number]
- [If (1) = “No”]: (2) = 0
### Service

(1) Does the site have a page about constituent service (or multiple pages)? If there are multiple pages, answer the following questions based on all of them.

- Yes
- No

(2) \(\text{If (1) = "Yes"}\): How many unique constituent services does/do the page(s) mention?

- \[\text{Number}\]
- \(\text{If (1) = "No"}\): \(2 = 0\)

### Allocation

(1) Does the site have a page about allocation funding (or multiple pages)? If there are multiple pages, answer the following questions based on all of them. Note: This might be found in a page with “News Items.”

- Yes
- No

(2) \(\text{If (1) = "Yes"}\): How many unique funding projects does/do the page(s) mention?

- \[\text{Number}\]
- \(\text{If (1) = "No"}\): \(2 = 0\)

### Descriptive

(1) Does the site have a page about the legislator’s background (or multiple pages)? If there are multiple pages, answer the following questions based on all of them.

- Yes
- No

(2) \(\text{If (1) = "Yes"}\): Can you identify the legislator with any of the following groups from the picture?

- Racial
- Gender
- Sexual preference
- Party
- Military
- Public servants (e.g., police, fire, EMS, teachers, etc. . .)
- Religion
- Other (describe)
- None
**Intercoder Reliability**

I evaluated intercoder reliability in two related ways. First, for 41 cases I compared the coding decisions made by a main coder to those made on the same websites by a reliability coder. Second, with 8 cases I compared the coding decisions made by the two main coders. Results are presented in Table C.1. These assessments indicate moderate to strong reliability across coders in both the front page and number of items variables.

For the dichotomous front page variables the percent agreement is greater than 70% in all cases, with an average of 85.4% agreement when comparing a reliability coder to a main coder and an average of 96.4% when comparing the two main coders. Additionally, Krippendorff’s (2004) Alpha shows moderate to strong agreement in both cases (the measure ranges from 0 to 1, with perfect agreement receiving the score 1). The mean value is 0.48 with in the reliability versus main coder test and 0.75 in the main coder versus main coder test.\(^2\)

For non-categorical variables such as the item count variables, Krippendorff’s Alpha is the standard measure of intercoder reliability. The mean coefficient in the reliability versus main coder test is 0.36 in that case and 0.52 in the main coder versus main coder test. Overall, these results suggest moderate to strong reliability across coders. However, as an additional check, I re-estimated all of the models presented in the main text with coder fixed effects and the results are substantively unchanged.

**Sample Characteristics**

Here I examine the representativeness of the sample, including a comparison to the population proportions of chamber and party membership, gender, and race as well as full state-level samples.

---

2The front page descriptive value is 0 due to a very small sample of cases in which the main coders overlapped (8 websites).
Table C.1: Intercoder Reliability Results

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Percent Agreement</th>
<th>Krippendorff’s Alpha</th>
<th>Percent Agreement</th>
<th>Krippendorff’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Page Policy</td>
<td>70.7%</td>
<td>0.41</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Front Page Service</td>
<td>82.9%</td>
<td>0.64</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Front Page Allocation</td>
<td>92.7%</td>
<td>0.36</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Front Page Descriptive</td>
<td>95.1%</td>
<td>0.48</td>
<td></td>
<td>85.7%</td>
</tr>
<tr>
<td>Mean</td>
<td>85.4%</td>
<td>0.48</td>
<td></td>
<td>96.4%</td>
</tr>
<tr>
<td>Policy Items</td>
<td>–</td>
<td>0.31</td>
<td></td>
<td>–</td>
</tr>
<tr>
<td>Service Items</td>
<td>–</td>
<td>0.46</td>
<td></td>
<td>–</td>
</tr>
<tr>
<td>Allocation Items</td>
<td>–</td>
<td>0.27</td>
<td></td>
<td>–</td>
</tr>
<tr>
<td>Descriptive Items</td>
<td>–</td>
<td>0.40</td>
<td></td>
<td>–</td>
</tr>
<tr>
<td>Mean</td>
<td>–</td>
<td>0.36</td>
<td></td>
<td>–</td>
</tr>
</tbody>
</table>

Note: Cell entries report intercoder reliability statistics for the dependent variables used in the analyses.
Sample versus Population Comparisons on Key Legislator Variables

Table C.2 compares sample proportions by party, gender, race, and chamber to proportions of those variables in the population of American state legislators in 2011. It shows that the sample is reasonably representative of the population of state legislators, though women and Democrats are slightly overrepresented compared to their respective population proportions.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Proportion</th>
<th>Population Proportion</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Republican</td>
<td>0.47</td>
<td>0.54</td>
<td>−0.07*</td>
</tr>
<tr>
<td>Lower Chamber</td>
<td>0.72</td>
<td>0.73</td>
<td>−0.01</td>
</tr>
<tr>
<td>Female</td>
<td>0.31</td>
<td>0.23</td>
<td>+0.08*</td>
</tr>
<tr>
<td>Black</td>
<td>0.08</td>
<td>0.09</td>
<td>−0.01</td>
</tr>
<tr>
<td>Latino/a</td>
<td>0.03</td>
<td>0.03</td>
<td>±0.00</td>
</tr>
</tbody>
</table>

*Note: Cell entries report sample and population proportions of each variable and the differences between the two. * Sample proportion is statistically significantly different from the population proportion ($p < 0.05$).

Full State-Level Samples

Table C.3 presents the full state-level samples. The first column reports the number of websites from each state and the second column reports the total number of legislators in the state’s legislature. The third column reports the state-level proportion (i.e., column 1 ÷ column 2). The fourth column reports the proportion of the usable sample from each state, while the fifth gives the proportion of the entire population of state legislators (7,382) from that state’s legislature. Finally, the sixth column reports the ratio of the sample proportion to the population proportion (i.e., column 4 ÷ column 5). States with numbers greater than one are overrepresented compared to their population value, while states with values smaller than one are underrepresented.

Deviance Residual Correlations

Table C.4 presents pairwise deviance residual correlations from the models used in the analyses. Note that only two of the 12 correlations are statistically significant, and all
Table C.3: Full State-Level Samples

<table>
<thead>
<tr>
<th>State</th>
<th>Sample Size</th>
<th>Legislature Size</th>
<th>State Sample</th>
<th>Sample Proportion</th>
<th>Population Proportion</th>
<th>Sample/Pop. Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>9</td>
<td>140</td>
<td>0.06</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Alaska</td>
<td>8</td>
<td>60</td>
<td>0.13</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Arizona</td>
<td>7</td>
<td>90</td>
<td>0.08</td>
<td>0.01</td>
<td>0.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Arkansas</td>
<td>4</td>
<td>135</td>
<td>0.03</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>California</td>
<td>17</td>
<td>120</td>
<td>0.14</td>
<td>0.03</td>
<td>0.02</td>
<td>1.50</td>
</tr>
<tr>
<td>Colorado</td>
<td>12</td>
<td>100</td>
<td>0.12</td>
<td>0.02</td>
<td>0.01</td>
<td>2.00</td>
</tr>
<tr>
<td>Connecticut</td>
<td>24</td>
<td>187</td>
<td>0.13</td>
<td>0.05</td>
<td>0.03</td>
<td>1.67</td>
</tr>
<tr>
<td>Delaware</td>
<td>3</td>
<td>62</td>
<td>0.05</td>
<td>0.01</td>
<td>0.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Florida</td>
<td>24</td>
<td>160</td>
<td>0.15</td>
<td>0.05</td>
<td>0.02</td>
<td>2.50</td>
</tr>
<tr>
<td>Georgia</td>
<td>19</td>
<td>236</td>
<td>0.08</td>
<td>0.04</td>
<td>0.03</td>
<td>1.33</td>
</tr>
<tr>
<td>Hawaii</td>
<td>4</td>
<td>76</td>
<td>0.05</td>
<td>0.01</td>
<td>0.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Idaho</td>
<td>17</td>
<td>105</td>
<td>0.16</td>
<td>0.03</td>
<td>0.01</td>
<td>3.00</td>
</tr>
<tr>
<td>Illinois</td>
<td>25</td>
<td>177</td>
<td>0.14</td>
<td>0.05</td>
<td>0.02</td>
<td>2.50</td>
</tr>
<tr>
<td>Iowa</td>
<td>5</td>
<td>150</td>
<td>0.03</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Kansas</td>
<td>13</td>
<td>165</td>
<td>0.08</td>
<td>0.03</td>
<td>0.02</td>
<td>1.50</td>
</tr>
<tr>
<td>Kentucky</td>
<td>7</td>
<td>138</td>
<td>0.05</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Louisiana</td>
<td>10</td>
<td>144</td>
<td>0.07</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Maryland</td>
<td>23</td>
<td>188</td>
<td>0.12</td>
<td>0.05</td>
<td>0.03</td>
<td>1.67</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>22</td>
<td>200</td>
<td>0.11</td>
<td>0.04</td>
<td>0.03</td>
<td>1.33</td>
</tr>
<tr>
<td>Minnesota</td>
<td>25</td>
<td>201</td>
<td>0.12</td>
<td>0.05</td>
<td>0.03</td>
<td>1.67</td>
</tr>
<tr>
<td>Mississippi</td>
<td>3</td>
<td>174</td>
<td>0.02</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Missouri</td>
<td>16</td>
<td>197</td>
<td>0.08</td>
<td>0.03</td>
<td>0.03</td>
<td>1.00</td>
</tr>
<tr>
<td>Montana</td>
<td>6</td>
<td>150</td>
<td>0.04</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Nebraska</td>
<td>4</td>
<td>49</td>
<td>0.08</td>
<td>0.01</td>
<td>0.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Nevada</td>
<td>10</td>
<td>63</td>
<td>0.16</td>
<td>0.02</td>
<td>0.01</td>
<td>2.00</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>7</td>
<td>424</td>
<td>0.02</td>
<td>0.01</td>
<td>0.06</td>
<td>0.17</td>
</tr>
<tr>
<td>New Jersey</td>
<td>5</td>
<td>120</td>
<td>0.04</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>New Mexico</td>
<td>5</td>
<td>112</td>
<td>0.04</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>New York</td>
<td>13</td>
<td>212</td>
<td>0.06</td>
<td>0.03</td>
<td>0.03</td>
<td>1.00</td>
</tr>
<tr>
<td>North Carolina</td>
<td>14</td>
<td>170</td>
<td>0.08</td>
<td>0.03</td>
<td>0.02</td>
<td>1.50</td>
</tr>
<tr>
<td>North Dakota</td>
<td>2</td>
<td>141</td>
<td>0.01</td>
<td>0.00</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>Ohio</td>
<td>9</td>
<td>132</td>
<td>0.07</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>10</td>
<td>149</td>
<td>0.07</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Oregon</td>
<td>8</td>
<td>90</td>
<td>0.09</td>
<td>0.02</td>
<td>0.01</td>
<td>2.00</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>7</td>
<td>113</td>
<td>0.06</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>South Carolina</td>
<td>9</td>
<td>170</td>
<td>0.05</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>South Dakota</td>
<td>3</td>
<td>105</td>
<td>0.03</td>
<td>0.01</td>
<td>0.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Tennessee</td>
<td>11</td>
<td>132</td>
<td>0.08</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Texas</td>
<td>20</td>
<td>181</td>
<td>0.11</td>
<td>0.04</td>
<td>0.02</td>
<td>2.00</td>
</tr>
<tr>
<td>Utah</td>
<td>16</td>
<td>104</td>
<td>0.15</td>
<td>0.03</td>
<td>0.01</td>
<td>3.00</td>
</tr>
<tr>
<td>Vermont</td>
<td>10</td>
<td>180</td>
<td>0.06</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Virginia</td>
<td>23</td>
<td>140</td>
<td>0.16</td>
<td>0.05</td>
<td>0.02</td>
<td>2.50</td>
</tr>
<tr>
<td>Washington</td>
<td>14</td>
<td>147</td>
<td>0.10</td>
<td>0.03</td>
<td>0.02</td>
<td>1.50</td>
</tr>
<tr>
<td>West Virginia</td>
<td>2</td>
<td>134</td>
<td>0.01</td>
<td>0.00</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>4</td>
<td>132</td>
<td>0.03</td>
<td>0.01</td>
<td>0.02</td>
<td>0.50</td>
</tr>
<tr>
<td>Wyoming</td>
<td>1</td>
<td>90</td>
<td>0.01</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Note: Cell entries report the full state-level samples. The first column reports the number of websites from each state and the second column reports the total number of legislators in the state’s legislature. The third column reports the state-level proportion (i.e., column 1 ÷ column 2). The fourth column reports the proportion of the usable sample from each state, while the fifth gives the proportion of the entire population of state legislators (7,382) from that state’s legislature. Finally, the sixth column reports the ratio of the sample proportion to the population proportion (i.e., column 4 ÷ column 5). States with numbers greater than one are overrepresented compared to their population value, while states with values smaller than one are underrepresented.
are small in magnitude. This provides justification for my strategy of accounting for the potential for interdependencies between the different dimensions with controls for content on the other three dimensions in each model.

Table C.4: Deviance Residual Correlations

<table>
<thead>
<tr>
<th></th>
<th>Front Page Models</th>
<th>Number of Items Models</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Policy</td>
<td>Service</td>
</tr>
<tr>
<td>Policy</td>
<td>0.00</td>
<td>-0.04</td>
</tr>
<tr>
<td>Service</td>
<td>-0.02</td>
<td>-0.01</td>
</tr>
<tr>
<td>Allocation</td>
<td>-0.16</td>
<td></td>
</tr>
<tr>
<td>Descriptive</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Cell entries report pairwise deviance residual correlations from the models used in the analyses. *p < 0.05.*

**Full Model Results**

Table C.5 presents complete model results from the logit and quasi-Poisson models presented graphically in the main text.

**Example Websites**

Figures C.1–C.4 provide examples of pages from websites in the data set. Figure C.1 shows a page on policy issues from the website of Nancy Spence (R-CO Senate). The page lists several specific items with links to more information on Spence’s positions on these issues.

Figure C.2 highlights the website of Spencer Coggs (D-WI Senate). The website has several pages about constituent service, including space to fill out a case work request and pages devoted to receiving honorary citations, flying the flag in someone’s honor, government publications, helpful links, government contacts, and tours of the state capitol.

Figure C.3 displays the website of Frank Turner (D-MD House of Delegates). The front page of his website discusses three unique areas in which Turner brought funding home to the district for improvements: school construction and renovation, outdoor recreational space, and renovation of a senior center.

Figure C.4 highlights the website of Quinton Ross (D-AL Senate). A photo gallery page
on his website shows him pictured with several different African-American groups, such as Student National Medical Association (SNMA), which provides advocacy for minority health policy.

**Variable Descriptions and Summary Statistics**

Table C.6 presents variable descriptions and summary statistics and Table C.7 reports pairwise correlations between the independent variables.
Table C.5: Complete Logit and Quasi-Poisson Results

<table>
<thead>
<tr>
<th>Policy</th>
<th>Service</th>
<th>Allocation</th>
<th>Descriptive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Page</td>
<td>Items</td>
<td>Front Page</td>
<td>Items</td>
</tr>
<tr>
<td>Intercept</td>
<td>-3.27*</td>
<td>1.69*</td>
<td>-2.28</td>
</tr>
<tr>
<td>(1.62)</td>
<td>(0.44)</td>
<td>(1.46)</td>
<td>(1.20)</td>
</tr>
<tr>
<td>Professionalism</td>
<td>-0.09</td>
<td>0.03</td>
<td>0.37*</td>
</tr>
<tr>
<td>(0.12)</td>
<td>(0.04)</td>
<td>(0.12)</td>
<td>(0.12)</td>
</tr>
<tr>
<td>District Magnitude</td>
<td>-0.03</td>
<td>-0.06</td>
<td>0.03</td>
</tr>
<tr>
<td>(0.11)</td>
<td>(0.04)</td>
<td>(0.12)</td>
<td>(0.13)</td>
</tr>
<tr>
<td>District Median Income</td>
<td>0.10</td>
<td>0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td>(0.11)</td>
<td>(0.03)</td>
<td>(0.11)</td>
<td>(0.07)</td>
</tr>
<tr>
<td>District % Black</td>
<td>-3.36</td>
<td>-0.27</td>
<td>-0.72</td>
</tr>
<tr>
<td>(2.26)</td>
<td>(0.51)</td>
<td>(1.62)</td>
<td>(0.73)</td>
</tr>
<tr>
<td>Electoral Competition</td>
<td>0.01</td>
<td>0.00*</td>
<td>-0.01</td>
</tr>
<tr>
<td>(0.01)</td>
<td>(0.00)</td>
<td>(0.01)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Ambition</td>
<td>-1.01</td>
<td>0.16</td>
<td>-0.94</td>
</tr>
<tr>
<td>(0.58)</td>
<td>(0.16)</td>
<td>(0.70)</td>
<td>(0.65)</td>
</tr>
<tr>
<td>Female Legislator</td>
<td>0.21</td>
<td>-0.07</td>
<td>-0.12</td>
</tr>
<tr>
<td>(0.23)</td>
<td>(0.07)</td>
<td>(0.22)</td>
<td>(0.16)</td>
</tr>
<tr>
<td>Black Legislator</td>
<td>0.18</td>
<td>-0.02</td>
<td>0.16</td>
</tr>
<tr>
<td>(1.32)</td>
<td>(0.34)</td>
<td>(1.08)</td>
<td>(0.54)</td>
</tr>
<tr>
<td>White Legislator</td>
<td>1.80</td>
<td>0.27</td>
<td>-0.18</td>
</tr>
<tr>
<td>(1.09)</td>
<td>(0.26)</td>
<td>(0.81)</td>
<td>(0.36)</td>
</tr>
<tr>
<td>Republican Legislator</td>
<td>1.75*</td>
<td>0.03</td>
<td>0.22</td>
</tr>
<tr>
<td>(0.89)</td>
<td>(0.26)</td>
<td>(0.91)</td>
<td>(0.87)</td>
</tr>
<tr>
<td>Democratic Legislator</td>
<td>1.76*</td>
<td>-0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>(0.88)</td>
<td>(0.26)</td>
<td>(0.90)</td>
<td>(0.87)</td>
</tr>
<tr>
<td>Black Legislator × % Black</td>
<td>3.25</td>
<td>0.33</td>
<td>0.63</td>
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<tr>
<td>(2.28)</td>
<td>(0.52)</td>
<td>(1.65)</td>
<td>(0.76)</td>
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<tr>
<td>White Legislator × % Black</td>
<td>3.17</td>
<td>0.29</td>
<td>0.94</td>
</tr>
<tr>
<td>(2.27)</td>
<td>(0.52)</td>
<td>(1.63)</td>
<td>(0.74)</td>
</tr>
<tr>
<td>ln(Site Size)</td>
<td>0.29</td>
<td>0.41*</td>
<td>0.30</td>
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<tr>
<td>(0.16)</td>
<td>(0.05)</td>
<td>(0.16)</td>
<td>(0.13)</td>
</tr>
<tr>
<td>ln(Campaign Dollars)</td>
<td>0.06</td>
<td>-0.03</td>
<td>0.06</td>
</tr>
<tr>
<td>(0.06)</td>
<td>(0.02)</td>
<td>(0.07)</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Front Page Policy</td>
<td>0.07</td>
<td>1.21*</td>
<td>0.55</td>
</tr>
<tr>
<td>(0.22)</td>
<td>(0.55)</td>
<td>(0.55)</td>
<td></td>
</tr>
<tr>
<td>Front Page Service</td>
<td>0.08</td>
<td>-0.25</td>
<td>0.60</td>
</tr>
<tr>
<td>(0.22)</td>
<td>(0.41)</td>
<td>(0.47)</td>
<td></td>
</tr>
<tr>
<td>Front Page Allocation</td>
<td>1.26*</td>
<td>-0.02</td>
<td>1.36*</td>
</tr>
<tr>
<td>(0.51)</td>
<td>(0.36)</td>
<td>(0.59)</td>
<td></td>
</tr>
<tr>
<td>Front Page Descriptive</td>
<td>0.28</td>
<td>0.38</td>
<td>1.06</td>
</tr>
<tr>
<td>(0.47)</td>
<td>(0.42)</td>
<td>(0.61)</td>
<td></td>
</tr>
</tbody>
</table>

| Policy Items | 0.01 | 0.03* | 0.01 |
| (0.01) | (0.01) | (0.02) |
| Service Items | 0.00 | -0.02 | 0.03 |
| (0.01) | (0.02) | (0.03) |
| Allocation Items | 0.01 | -0.02 | 0.03 |
| (0.01) | (0.02) | (0.04) |
| Descriptive Items | 0.07 | 0.34* | 0.16 |
| (0.08) | (0.17) | (0.21) |

*BIC 716.51 3796.82 761.06 2753.30 363.58 1855.79 266.29 487.05
Dispersion 1.27* 1.37* 0.99*
N 510 510 510 510 503 510 481 487
States 46 46 46 46 45 46 45 46

*Note: Cell entries report MLM logit (Front Page models) and MLM quasi-Poisson (Items models) coefficients and standard errors (in parentheses). The dependent variables are listed at the top of each column. The last model (Descriptive Items) is estimated with logit. Lower Bayesian Information Criterion (BIC) values indicate better model fit. * p < 0.05 (two-tailed).
My public service is based on the following values: individual liberty, personal responsibility, free markets, limited government, and traditional families. These values are integrated into my work across the issues outlined in this section.

These are the same values I consider before casting a vote in the state senate, where I've served for the past four years.

Education has been an important part of my public service for over 20 years. This was reflected in my work as your state representative from 1998 until 2004, including two terms as Chair of the House Education Committee.

The main issues I have been working on are listed on the left:
Click the links for more information on my positions on these issues.

Note: This page on policy issues from the website of Nancy Spence (R-CO Senate) lists several specific items with links to more information on her positions on these issues.
Note: Spencer Coggs’ (D-WI Senate) website has several pages about constituent service, including space to fill out a case work request and pages devoted to receiving honorary citations, flying the flag in someone's honor, government publications, helpful links, government contacts, and tours of the state capitol.
Note: The front page of Frank Turner’s (D-MD House of Delegate) website discusses three unique areas in which he brought funding home to the district for improvements: school construction and renovation, outdoor recreational space, and renovation of a senior center.
Note: A photo gallery page on the website of Quinton Ross (D-AL Senate) shows him pictured with several different African-American groups, such as Student National Medical Association (SNMA), which provides advocacy for minority health policy.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professionalism (scaled by district size)</td>
<td>$100 \times \left( \frac{Squire (2007) \text{ index}}{\ln(2005 \text{ district population})} \right)$</td>
<td>1.76</td>
<td>0.91</td>
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<tr>
<td>District Magnitude</td>
<td>Number of representatives in district (both chambers in states where districts match)</td>
<td>1.31</td>
<td>1.01</td>
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<tr>
<td>District Median Income (scaled by state median income)</td>
<td>$1000 \times \left( \frac{\ln(2000 \text{ district median income})}{\ln(2000 \text{ state median income})} \right)$</td>
<td>1021.52</td>
<td>26.21</td>
</tr>
<tr>
<td>District % Black</td>
<td>2000 data</td>
<td>10.90</td>
<td>15.51</td>
</tr>
<tr>
<td>Electoral Competition</td>
<td>Two-party vote share in last election</td>
<td>74.52</td>
<td>18.58</td>
</tr>
<tr>
<td>Ambition</td>
<td>Yes = 14; No = 496</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Party</td>
<td>Republican = 241; Democrat = 262; Non-partisan/independent = 7</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Gender</td>
<td>Male = 354; Female = 156</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Race</td>
<td>White = 446; Black = 41; Latino/a = 16</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Chamber</td>
<td>Upper = 145; Lower = 365</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Front Page Policy Item</td>
<td>Yes = 354; No = 156</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Front Page Service Item</td>
<td>Yes = 196; No = 314</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Front Page Allocation Item</td>
<td>Yes = 43; No = 467</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Front Page Descriptive Item</td>
<td>Yes = 31; No = 479</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Total Policy Items</td>
<td>Count from entire website</td>
<td>8.86</td>
<td>5.99</td>
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<tr>
<td>Total Service Items</td>
<td>Count from entire website</td>
<td>2.02</td>
<td>4.47</td>
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<tr>
<td>Total Allocation Items</td>
<td>Count from entire website</td>
<td>0.98</td>
<td>3.15</td>
</tr>
<tr>
<td>Total Descriptive Items</td>
<td>Count from entire website</td>
<td>0.36</td>
<td>0.72</td>
</tr>
<tr>
<td>1+ Descriptive Items</td>
<td>Yes = 126; No = 0</td>
<td>–</td>
<td>–</td>
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</tbody>
</table>

*Note: Cell entries report descriptions and summary statistics (mean and standard deviation) for the variables used in the analyses. Demographic data come from the 2000 U.S. Census unless otherwise noted.*
Table C.7: Chapter 6 Variable Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Pro.</th>
<th>Magnitude</th>
<th>Income</th>
<th>% Black</th>
<th>Competition</th>
<th>Ambition</th>
<th>Rep.</th>
<th>Female</th>
<th>White</th>
<th>Black</th>
<th>Latino/a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnitude</td>
<td></td>
<td>−0.12*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>0.04</td>
<td></td>
<td>0.11*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Black</td>
<td>−0.06</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>−0.25*</td>
</tr>
<tr>
<td>Competition</td>
<td>0.00</td>
<td>0.15*</td>
<td>0.10*</td>
<td>−0.31*</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Ambition</td>
<td>−0.02</td>
<td>0.01</td>
<td>0.02</td>
<td>−0.05</td>
<td>0.05</td>
<td></td>
<td></td>
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<tr>
<td>Rep.</td>
<td>−0.16*</td>
<td>0.00</td>
<td>0.25*</td>
<td>−0.31*</td>
<td>−0.11*</td>
<td>−0.01</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Female</td>
<td>0.04</td>
<td>−0.02</td>
<td>−0.04</td>
<td>0.06</td>
<td>0.13*</td>
<td>0.04</td>
<td>−0.23*</td>
<td></td>
<td></td>
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<td>White</td>
<td>−0.12*</td>
<td>0.06</td>
<td>0.32*</td>
<td>−0.54*</td>
<td>0.17*</td>
<td>−0.05</td>
<td>0.32*</td>
<td>−0.10*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>0.02</td>
<td>−0.03</td>
<td>−0.28*</td>
<td>0.72*</td>
<td>−0.22*</td>
<td>−0.01</td>
<td>−0.28*</td>
<td>0.09</td>
<td>−0.78*</td>
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<td>Latino/a</td>
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<td>−0.12*</td>
<td>−0.06</td>
<td>−0.01</td>
<td>0.11*</td>
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<td>0.00</td>
<td>−0.48*</td>
<td>−0.05</td>
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<tr>
<td>L. Chamber</td>
<td>−0.02</td>
<td>0.04</td>
<td>0.02</td>
<td>−0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.03</td>
<td>0.02</td>
<td>0.01</td>
<td>0.04</td>
<td>−0.09</td>
</tr>
</tbody>
</table>

Note: Cell entries report pairwise correlations between the independent variables used in the analyses. * $p < 0.05$ (two-tailed).
REFERENCES


Bates, Douglas, Martin Maechler, and Bin Dai. 2011. lme4: Linear mixed-effects models using S4 classes. R Package: version 0.999375-42.


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